TITLE PAGE

TRANSFORMATION OF HIGHER EDUCATION AND TRAINING IN KENYA:

SECURING KENYA'S DEVELOPMENT IN THE KNOWLEDGE ECONOMY

REPORT

OF

THE PUBLIC UNIVERSITIES INSPECTION BOARD

Kabiru Kinyanjui
Chairman

NAIROBI

August   2006

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Acknowledgements

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Public Universities Inspection Board

Abbreviations

AAU	- Association of African Universities
AAK	- Automobile Association of Kenya
AERC	- African Economic Research Consortium
AES	- Applied and Engineering Sciences
AGOA	- Africa Growth Opportunity Act
AHSS	- Arts, Humanities and Social Sciences
ASAL	- Arid and Semi-Arid Lands
AVU	- African Virtual University
BIS	- Basic and Information Sciences
CAT(s)	- Continuous Assessment Test(s)
CBA	- Collective Bargaining Agreement
CBS	- Central Bureau of Statistics
CDF	- Constituency Development Fund
CHE	- Commission for Higher Education (Kenya)
CHE	-Council of Higher Education (Republic of South Africa)
CHEK	- Congress on Higher Education in Kenya
CIDA	- Canadian International Development Agency
CODESRIA	- Council for Development Social Science Research in Africa
COL	- Commonwealth of Learning
COMESA	- Common Market for Eastern and Southern Africa
DAAD	- German Academic Exchange Services
DEMS	- Department of Extra Mural Studies
DES	- Department of Educational Studies
DDE	- Department of Distance Education
DFID	- Department for International Development (UK)
DIT	- Directorate of Industrial Training
DPM	- Directorate of Personnel Management
DRC	- Democratic Republic of Congo
DUC	- Differentiated Unit Cost
DVC	- Deputy Vice-Chancellor
EFA	- Education For All
EMC	- Economics, Mathematics and Commerce
ETQA	- Education and Training Quality Assurance (South Africa)
FDI	- Foreign Direct Investment
FKE	- Federation of Kenya Employers
FPE	- Free Primary Education
FTSE	- Full Time Student Equivalents

GDP   - Gross Domestic Product

GOK   - Government of Kenya

GSS   - Government Sponsored Students

HELB   - Higher Educations Loans Board

HEQC   - Higher Education Quality Committee (South Africa)

HHS   - Health and Human Sciences

HIV/AIDS   - Human Immune Virus /Acquired Immune Deficiency Syndrome

ICIPE   - International Centre for Insect Physiology and Entomology

ICPAK   - Institute of Certified Public Accountants of Kenya

ICRAF   - International Center for Research in Agro-Forestry

ICT   - Information and Communication Technology

IDRC   - International Development Research Centre

IGAs   - Income Generating Activities

IIT   - India Institutes of Technology

ILO   - International Labour Organization

ILRI   - International Livestock Research Institute

ISCO   - International Standard Clarification of Occupations

ISO   - International Organization for Standardization

IUCEA   - Inter University Council of East Africa

JAB   - Joint Admissions Board

JICA   - Japanese International Cooperation Agency

JKUAT   - Jomo Kenyatta University of Agriculture and Technology

KAM   - Kenya Association of Manufacturers

KARI   - Kenya Agricultural Research Institute

KASNEB   - Kenya Accountants and Secretaries National Examinations Board

KATC   - Kenya Accounts Technicians Certificate

KCCT   - Kenya College of Communication Technology

KCPE   - Kenya Certificate of Primary Education

KCSE   - Kenya Certificate of Secondary Education

KEFRI   - Kenya Forest Research Institute

KEMFRI   - Kenya Marine and Fisheries Research Institute

KEMRI   - Kenya Medical Research Institute

KENET   - Kenya Education Network

KESSP   - Kenya Education Sector Support Programme

KIE   - Kenya Institute of Education

KIPPRA   - Kenya Institute for Public Policy Research and Analysis

KNEC   - Kenya National Examinations Council

KNOCS   -Kenya National Occupational Classification Standard

KRA   - Kenya Revenue Authority

KSSHA   - Kenya Secondary Schools Heads Association

KSTC   - Kenya Science Teachers College

KTTC   - Kenya Technical Teachers College

KU   - Kenyatta University

KUDHEIHA   - Kenya Union of Domestic, Hotels, Educational Institutions, Hospitals and Allied Workers

LCD   - Liquid Crystal Display (Projector)

MDG   - Millennium Development Goals

MOEST   - Ministry of Education Science and Technology

MUHC   - Moi University Holdings Company

NMDC   - National Manpower Development Committee

NCEOP   - National Committee on Educational Objectives and Policies

NCST   - Nation Council for Science and Technology

NETACO   - National Education and Training Advisory Council.

NGO   - Non Governmental Organization

NQCB   - National Qualifications and Certification Bureau

NQCC   - National Qualification and Certification Committee

NQF   - National Qualification Framework

NRI   - National Research Institute

ODL   - Open and Distance Learning

OECD   - Organization for Economic Co-operation and Development

PBL   - Problem-Based Learning

PGDE   - Postgraduate Diploma in Education

PIN   - Personal Identification Number

PTE   - Primary Teacher Education

PUIB   - Public Universities Inspection Board

QA   - Quality Assurance

QAO   - Quality Assurance Office

RBA   - Retirement Benefits Authority

R&D   - Research and Development

SAD   - Sexually Acquired Degrees

SEHRD   - School of Education and Human Resource Development

SHSS   - School of Humanities and Social Sciences

SIDA   - Swedish International Development Agency

SMEs   - Small Medium Enterprise Services

SPAS   - School of Pure and Applied Sciences

SSP   - Self-Sponsored Degree Programmes

SSR   - Student Staff Ratio

SSS   - Self Sponsored Students

SAQA	- South Africa Qualifications Authority
SSA	- Sub-Sahara Africa
SVSP	- Student Voluntary Services Programme
TIC	- Technology Innovation Centres
TIVET	- Technical Industrial Vocational Entrepreneurship Training
TNC	- Trans-National Corporations
TSC	- Teachers Service Commission
UASU	- Universities Academic Staff Union
UEAB	- University of Eastern Africa, Baraton
UGC	- University Grants Committee
UMB	- University Management Board
UNDP	- United Nations Development Programme
UNES	- University of Nairobi Enterprises and Services Company
UNESCO	- United Nations Education Scientific and Cultural Organization
UK	- United Kingdom
UoN	- University of Nairobi
UNTESU	- Universities Non-Teaching Staff Union
USA	- United States of America
USAID	- United States Agency for International Development
USIU	- United States International University
VC	- Vice-Chancellor
WTO	- World Trade Organization
WUCST	- Western University College of Science and Technology
WWW	- World Wide Web

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Executive Summary

The Public Universities Inspection Board (PUIB) was appointed by His Excellency the President on April 19, 2005. The appointment of the Board provided Kenyans with a unique window of opportunity to reflect on the current status of higher education and how it should be transformed into a sector that enables them to realize individual and national goals of social, economic, and political development in a highly competitive and rapidly changing global environment. The Board received many presentations and held discussions on critical issues that need immediate attention and others that require systematic planning in order to transform higher education into a major player in the emerging knowledge economy.

The terms of reference of the Board made it abundantly clear that the spirit and basic thrust of the Board's work was not so much to ''inspect'' in order to find fault and criticize, but to review, provide responsible critique and constructive engagement with stakeholders and thereafter recommend appropriate changes.

To implement its terms of reference the Board built a partnership with key stakeholders to enable it to learn and appreciate the challenges and possibilities of transformation of higher education in the country. The partnership was also intended to cultivate a sense of ownership of the report of the Board. The report has thus focused on seven broad areas of the terms of reference: increasing access and equity; quality assurance; student welfare and discipline; teaching and non-teaching staff welfare and discipline; meeting demand for knowledge, relevant skills and competencies; resource mobilization and financing; governance and management of higher education. An implementation matrix is also provided in the report.

The report has called for a radical rethinking on how the increasing demand for access and equity in higher education can be met; the way students are initiated

and socialized into university community life; the way the quality of learning and research is processed, ensured and maintained; the way staff are recruited, utilized and rewarded; how funding of the sector is organized, managed and accountability secured; and finally the governance and management of public universities. The implementation of the proposed changes in the report entail a paradigm shift.

Increasing Access and Equity

Access to higher education is a major challenge in Kenya as a result of increasing qualified school candidates and other Kenyans seeking to improve their knowledge and upscale skills. In 2005, 68,000 school leavers qualified to access university education but only about 10,000 will be admitted to public universities in 2006. Hence the Board recommends a wide range of measures to increase access to higher education among them being expansion of existing public universities, increased enrolment and diversification of academic programmes in private universities and revitalization of middle level colleges. To attract increased private investment in higher education, infrastructural incentives and other policy changes are recommended

The Board has recommended the establishment of three new public universities to open up development of strategic resources and the introduction of degree programmes in some of the national polytechnics within the next five years. The guiding principle is to locate at least one public university in regions where it would be a catalyst for exploitation of potential resources. The Board has identified as the most deserving regions at the moment as the Coast, Eastern and North Eastern provinces. The Board also recommends establishment of community-based colleges and institutes to address local needs while providing foundational courses that could be transferable to other universities in form of accrued credits.

The Board has recommended as matter of priority formulation of national policy on open and distance learning and establishment of Open University of Kenya by the year 2008.

The strategy for establishing a new public university should involve utilizing existing underutilized communal or government facilities, coupled with relocation of mature "seed" departments from existing public universities.

In the process of improving access to higher education, issues of equity should be addressed. These are characterized by gender disparities, regional, ethnic, and social class inequalities. The report has analyzed the historical background to the existing inequalities, their current manifestation in tertiary education and made appropriate recommendations on how they should be dealt with in the institutions of higher education and the education system as a whole.

Postgraduate Programmes

Expansion of university facilities should be commensurate with capacity building for teaching, administrative and research staff in order not to compromise quality due to dysfunctional student-to-staff ratios. Any expansion in university education should take into account these ratios and their implications on quality. Consequently, the Board recommends intensive and concurrent training of postgraduate students in order to sustain national capacity for teaching and research in higher education as well as strategic human resource requirements. Specific postgraduate training programmes in key universities should be selected for strengthening during the envisaged reforms and expansion.

To strengthen postgraduate training programmes, universities in Kenya must take bold initiatives to build the necessary infrastructure and facilities, and create incentives for talented students and staff. These programmes could be built on experiences of current collaborative programmes that universities are undertaking with foreign universities. The report has made recommendations to make a number of universities in the country centres of excellence in postgraduate training in their respective areas of specialization.

The report has recognized lack of funding and quality facilities for postgraduate programmes and research in the universities. A suitable formula for competitive funding of postgraduate and research programmes has been recommended.

Quality Assurance

There is a widespread perception that quality of education in public universities has declined as a result of increased student enrolment, inadequate and outdated equipment and facilities and low staff morale due to poor working conditions. The report has identified critical internal quality assurance mechanisms (for teaching, learning and research) and made recommendations on how they should be built and strengthened. The report has identified the need for an external quality assurance body for both the private and public universities. A restructured and revitalized CHE is recommended to play this role and build the necessary capacities.

The recommended strategy is to develop critical indicators for measuring quality of various academic and research programmes. These indicators should be domesticated and must include admission criteria for students, criteria for appointment and promotion of staff, quality of research facilities, their management and research output, and the criteria for allocation of resources. The overall objective is to strengthen compliance with established internal quality assurance mechanisms, The Board recognizes the need for competent quality assurance systems for assessing and accrediting new academic programmes as well as regular curricula reviews. Incorporation of professional associations in the curricula reviews and programme accreditation processes is recommended.

The report has recommended that an inventory of the number, type and status of teaching and research equipment in public and private universities, as well as in national and locally based international research institutes, should be undertaken to establish the available capacity on science and technology infrastructure in the country and to suggest where additional capacities are needed. This will enhance and strengthen collaboration and utilization of existing infrastructure and capacities for overall improvement in the quality of teaching and research.

The Board has recommended the review of training programmes of graduate teachers to take into consideration the need for mastery of subject content and acquisition of professional skills and competencies.

Student Welfare and Discipline

The report has made wide ranging recommendations on transition between secondary education and entry into university, the limited time allocated for orientation and inculcation of institutional culture, student behaviour, student leadership and responsibilities, learning and living environment, health and safety.

Recommendations have also been made on issues pertaining to celebration of cultural and social diversity, strengthening dialogue and conflict resolution mechanisms in public universities, catering for students with special needs, and building among students essential life skills and exposing them to the requirements of world of work and professional development. It is recommended that parents as critical stakeholders should be involved in all aspects of student welfare and development in the universities.

Staff Welfare and Discipline

The critical issues in staff welfare and discipline were identified as low productivity, poor remuneration and working conditions. Criteria and procedures for recruitment and promotion were not implemented in a transparent and accountable manner. The report has made detailed recommendations on these and related issues. There are also recommendations on succession and staff development issues neglected for many years. Measures to address gender inequalities in staffing have also been recommended.

The Board recognized that the widening democratic space has led to the unionization of staff members who in the past were not catered for. This has brought new dynamics in the governance and management of public universities and the report has recommended the need for creative dialogue to harness these dynamics to improve the quality of management of the institutions, welfare of the staff and teaching and learning. This could also lead to acceptable codes of conduct and performance contracts.

The recommendations have also focused on the urgent need for universities to strategize on how to improve terms of service and working conditions, rewards

and recognition systems, and remuneration of staff. The strategic recommendations with regard to staffing include programmed staff development and training to ensure smooth succession and upgrading of skills, and rationalization of staff emoluments to be consistent with acceptable practices by deriving staff compensation from that of the chief executive.

Demand for Knowledge, Relevant Skills and Competencies

The report has identified characteristics of knowledge society, the current level of development of knowledge in Kenya, and analyzed trends and challenges which the country faces in the national, regional and global context. Strategic sectors of the economy have been identified where priority investment in research and development should be undertaken. The role of universities in modulating future trends and challenges has been analyzed and the characteristics of future tertiary education institutions and their outputs indicated.   The transformational processes and the necessary linkages leading to vibrant 21st century higher education institutions are recommended.

The Board sought to establish the type of skills and competences expected of the graduate of the future, and noted that the critical characteristics of the graduate of the future are those aligned to lifelong learning, critical thinking, and strong ethical values of caring, honesty and integrity in addition to professional competencies. To produce this type of graduate, the Board recommends that universities should develop mechanisms for inculcating appropriate normative and cultural values into the curricula. Universities should also expose the students to broader academic mandates beyond those defined by the mainstream professional and career boundaries.

The report provides far-reaching recommendations that if implemented could enable the country to navigate into knowledge economy and ensure regional and global competitiveness.

Resource Mobilization and Financing

The Board recognized that the transformation of higher education cannot be undertaken without addressing the critical issues pertaining to existing financial challenges. The Board has therefore addressed this by looking into questions of resource mobilization, diversification of funding sources, efficiency and accountability in utilization of the available resources. Building a sustainable partnership of key players in funding higher education is a challenge that the Board has addressed.

The country faces a major challenge in mobilizing adequate resources to meet the escalating demand for higher education. At the moment there is a delicate balance in allocation of available resources between Free Primary Education (FPE), expansion of secondary education and tertiary education. Higher education in Kenya is going through a crisis of diminishing public funding, a trend that is observable all over the world. The report has analyzed and recommended the need for diversified resource mobilization by public universities to meet the emerging gap in funding. Building partnerships of state, private sector, households, and development partners in the development of all aspects of higher education has been recommended as the way forward.

The implementation of differentiated unit cost is recommended to bring government sponsored students in line with those in private and foreign universities, and self-sponsored students. It is also recommended that the universities mobilize resources through alumni, endowments and through prudent investment of their resources. These will open new challenges not only on how to support students from poor backgrounds access and remain in the universities, but also on how to utilize and account for resources that emanate from various sources and partnerships.

The anticipated level of government funding for university education will necessitate public universities to seek alternative sources for recurrent and capital development. Universities will be required to explore various models of mobilizing resources for their rising needs. Funding for research should also be sourced

from diversified streams and allocated on competitive basis. The Board is of the view that funds for strategic research and establishment of jointly owned facilities such as science parks should be sourced from both private and public sectors, and maintained through income generated.

The development of HELB as a key financial institution to provide students' loans to those accessing higher education is recommended.

Furthermore, the establishment of an effective University Grants Committee (UGC) for sourcing of resources required, equitable allocation of available funds, and identification of strategic areas for future investment in higher education is strongly recommended.

Governance and Management

The current Acts of parliament providing for establishment, governance and management of public universities are inconsistent with the needs of modern management and good governance practices and do not provide for a mechanism for external quality assurance. The process of amending these Acts to modernize structures of public universities is long and time consuming. This hinders fast decision making and restructuring of the universities to bring about the much needed changes and innovations. The report has made recommendations to streamline the existing anomalies and to establish an embracing legal framework for the development of higher education.

The report further recommends transformation of local universities into entrepreneurial and developmental universities by enriching the practical orientation of academic programmes through linkages with industry and other productive sectors of the national economy. The critical role of using university to address the national agenda of poverty eradication should be inculcated into university programmes, and be enshrined in their vision, missions and objectives. The university missions should capture current university obligations touching on participation in knowledge generation, utilization, and community service as well as functioning as national observatories on new and emerging professions,

technologies and disciplines, and assessing their impact on the society including university training and research.

The limitations of CHE in accrediting and being a quality assurance institution for all universities are recognized and analyzed in the report. Appropriate recommendations have been made for restructuring and revitalizing CHE to undertake the emerging functions for accreditation and quality assurance efficiently and effectively. Legal framework and governance structures for HELB and UGC have been provided for. A mechanism for interaction and collaboration of all institutions of higher education has also been recommended.

An all-encompassing Higher Education Act to strengthen, restructure and revitalized CHE, and other relevant higher education agencies should be enacted. This would streamline the processes of establishing public and private universities, and community colleges and thereby enable players in the sector to operate within the broad mandate of the legal framework.

For systematic planning, governance and management of higher education in Kenya, the Board has strongly recommended the establishment of a unit in each institution of higher learning to collect, maintain and process accurate and up to date data on all aspects of its operations. The Board recommends that CHE should be mandated by the law to be the custodian of statistics on higher education sector.

Challenges of Implementation of Reforms

The Board recognized the lack of systematic follow up and implementation of recommendations of past commissions, boards and committees. It has noted that this stems mainly from inadequate capacities, resources allocation, and lack of an identifiable champion to spearhead the reforms in each institution and appropriate monitoring and evaluation mechanism. The Board has generated an implementation matrix which should be spearheaded by appropriate reform units in the universities, the higher education agencies and the Ministry of Education. The implementation matrix indicates priority recommendations, identifying the

champion for each agency to monitor and evaluate the implementation time-frame and resources required.

Recommendations on the legal framework, and financing of reforms should be given priority to create an enabling environment for implementation of other reforms.

Conclusion

The proposed Transformation of Higher Education and Training in Kenya has to be anchored within the broad context of the national needs, regional opportunities and emerging global challenges of knowledge society. For institutions of learning to be part and parcel of the ongoing transformation of society, they have to address the critical issues of leadership, good governance and management, equitably widen opportunities to acquire, upgrade skills and knowledge, build on positive values and attitudes, safeguard quality and institutional autonomy, ensure broad participation and partnerships, and diversification of sources of funding to sustain a dynamic research culture and excellence in teaching and learning that is geared towards service to the country, regional and global competitiveness. These are the essential pillars in the envisaged transformation of higher education in Kenya.

CHAPTER ONE

A WINDOW OF OPPORTUNITY

1.1   INTRODUCTION

1.1.1 Expectations of the Board

1.1.1.1   The appointment of the Public Universities Inspection Board (PUIB) by His Excellency The President on April 19, 2005 provided Kenyans with a unique window of opportunity to reflect on their heritage of higher education, its current status, and how it should be transformed into a sector that enables them to realize individual and national goals of social, economic, and political development in a highly competitive and rapidly changing environment. In its work, the Board has received many presentations on issues that need immediate attention and others that require systematic planning in order to transform higher education from its historical baggage, its current malaise and propel the sector into a major player in the knowledge economy. The Board views a knowledge society as the one that puts a premium on generation, adaptation, acquisition and utilization of knowledge and innovations to realize and maximize benefits in social, economic and technological development.

1.1.1.2   The major expectation is that the sector will turn into a vibrant forward-looking vehicle for the development and consolidation of national consciousness, identity and dignity, scientific and technological advancement of the country. In this way, the nation will become not only a respected participant and beneficiary, but also a contributor to the shaping of the global economy. In view of the value Kenyans attach to acquisition of knowledge and skills, it is expected that higher education should be in the forefront of upholding the principles of academic freedom, equitable access, quality and relevance, accountability in governance and management of institutions of learning, and thus embody creativity and innovation in all disciplines.

1.1.2 Interpretation and Implementation of Terms of Reference

1.1.2.1 The appointment of the Board was a welcome initiative, as it was perceived not only to provide *a window of opportunity* to accelerate and deepen the process of reforms, but also as a historic moment to raise fundamental questions on the nature and direction the university education should pursue. Though called an Inspection Board, the terms of reference made it abundantly clear that the spirit and basic thrust of the Board's work were not so much to ''scrutinize'' in order to find fault and criticize but to review, offer responsible critique and make good implementable recommendations. This was borne out by the operative verbs in the terms of reference. These include ''to review''. ''to conduct a critical appraisal'', ''to critically appraise'' and ''to make any other reviews''. In short, the Board understood its work in terms of ''review or ''constructive engagement''. In particular the Board noted that time had come to question how the institutions of higher learning relate and engage the society where they are located. The terms of reference indicated below underscore the wide range of issues that need to be addressed if higher education is to be reformed and revitalized.

THE PUBLIC UNIVERSITIES INSPECTION BOARD:
TERMS OF REFERENCE:

(a) To review the statutes establishing the respective Public Universities, the subsidiary legislation as well as Universities Act Cap 210B, and recommend any amendments it may find appropriate;

(b) To review the objectives and operations of the Commission for Higher Education (CHE) and make recommendations with a view to improving its relationship with individual universities;

(c) To conduct a critical appraisal of teaching and research activities in all Public Universities;

(d) To critically appraise the infrastructure available for teaching and research, including laboratories, libraries, documentation centres, and other similar facilities and the sourcing and management of the resources required to support teaching and research;

(e) To critically appraise the welfare and discipline of academic staff of the universities, including salaries and allowances;

(f) To critically appraise the scope and distribution of administrative and support staff in public universities, including their welfare and discipline;

(g) To appraise the criteria for appointment and promotion for both the academic and administrative staff;

(h) To conduct a critical review of the procedure for appointment and the tenure of the office of the vice-chancellors, deputy vice-chancellors and principals of colleges;

(i) To conduct a review of matters related to welfare and discipline of students;

(j) To review the general trend in national development and make recommendations on the relationship between current academic programmes and projected needs for human capital in the private and public sectors; and

(k) To make any other reviews, appraisals and recommendations as it may find to be consistent with the support of the objectives of university education in Kenya or as the chancellor may direct.

Gazette Notice No. 3089 of April 22, 2005.

1.1.2.2   In the initial interactions and discussions with the Ministry of Education, the Chancellors of public universities, the Vice-Chancellors and Principals of private and public universities, organized university unions, student leaders, parents and other stakeholders in higher education sector, the Board recognized the need for interpreting the final term of reference (k) in such a way that its focus encompassed the public universities and the entire higher education sector. This included private universities, middle level colleges, and supportive institutions like Higher Education Loans Board (HELB). Hence, the Board defined higher education broadly to encompass post-secondary education and training institutions. The Board was of the view that the private universities do provide a "public good" to Kenyans, and need to be recognized for the contribution they are making in the expansion of higher education opportunities. The intention was to take cognizance of the imperatives of the knowledge economy that requires the know-how and technological skills developed in the entire tertiary sector.

1.1.2.3   Second, the Board recognized that the issue of access to post-secondary opportunities was a driving force in the expansion of higher education. Tied to this, there are issues of equitable access on the basis of gender, region, socio-economic class and special needs. Hence, this interpretation of the terms of reference of the Board. The need for a diversified tertiary education that encompassed new frontiers of knowledge and skills is a national priority. Besides visiting all the public and chartered private universities in the country, the Board also physically reviewed the activities of tertiary institutions such as Kenya Agricultural Research Institute (KARI), Kenya Medical Research Institute (KEMRI), the Directorate of Industrial Training (DIT), Kenya Polytechnic, Mombasa Polytechnic and Kenya Science Teachers College (KSTC) and Kenya Technical Teachers College (KTTC). These are among Kenya's "hidden treasures" because of the soundness of their infrastructure, equipment and quality of training.

1.1.2.4   Third, the Board recognized that the transformation of higher education cannot be undertaken without addressing the critical issues pertaining to existing financial challenges. The Board has addressed this by looking into questions of resource mobilization, diversification of funding sources and efficient and accountable utilization of available resources. Building a sustainable partnership amongst key players in funding higher education is a challenge that the Board has identified and addressed.

1.1.3 Methodology of Work

1.1.3.1   To address the above issues, the Board adopted an inclusive and participatory approach which gave stakeholders ample opportunity to share their views, ideas and suggestions. In this way, a broad partnership was created to facilitate sharing of the concerns and eventually ownership on the final product. Meetings were held with Chancellors, Chairpersons of university Councils, and Vice-Chancellors of all public universities. The Board had also an opportunity to interact with Vice-Chancellors and Principals of private universities. Presentations were received and discussions held with staff and students unions in public universities. Deliberations were held with CHE and HELB. The initial discussions were followed by visits to public and private universities and middle level colleges where further presentations were made by university governance and management bodies, staff unions, students, parents and alumni. Public hearings were held in all provinces. The Board also held discussions and consultations with officials in key ministries and parastatals.

1.1.3.2   Two stakeholders' workshops were held in Nairobi where draft reports was discussed and comments and additional suggestions were made. The Board made two presentations to the Chancellors of public universities. The interim findings were shared with the senior officials of the Ministry of Education and CHE.

1.1.3.3   To gain in-depth knowledge and data of various aspects of development and status of university education, and validate some of the Boards initial

observations and findings, research studies were commissioned from a number of higher education experts. The Board also received memoranda from the public, students, and educators and studied the experiences of other countries undertaking reforms of higher education.

1.1.3.4   On the basis of the knowledge and data obtained in the above process the Board has organized this report into seven broad areas. These are: increasing access and equity; quality assurance and infrastructure; student welfare and discipline; staff welfare and discipline; meeting demand for knowledge, relevant skills and competences in human resource development; resource mobilization and financing; governance and management of higher education; and implementation of reforms.

1.1.4 The Past, Present and the Future

1.1.4.1   Since independence, Kenya has experienced a remarkable expansion of higher education that has made a major contribution to the development of our human resources. The current demand for expansion in this sector results from the success the country has made in the last four decades. Despite this scenario, there have been major constraints and shortcomings that have a strong bearing on future development of higher education. One of the major challenges of the transformation of the sector is how to overcome the legacy of the past while affirming positive elements of that heritage, recognizing the current contributions, and seizing upon opportunities of re-engineering the universities and other tertiary institutions to be in tune with the demands of the twenty-first century. Looking back to the past four decades, one can perceive that higher education in general, and public universities in particular, have gone through three critical phases in their development. These phases are closely intertwined with the socio-economic and political developments in the country.

1.1.4.2   The first phase revolved around intense discourses on what kind of university was appropriate for a country emerging from colonialism. This

phase was not unique to Kenya as this phenomenon was common to African countries that were emerging from colonial domination. The search entailed building a consensus on the nature and orientation of university education. The emerging consensus pointed towards the concept of a "development university" that was to spearhead the process of decolonization and overcoming the legacies of foreign domination while making a major contribution to nation building efforts. In particular, the universities had a major role to play in the production of human resources for Africanization and development in general. This was a period of high expectations. Hence, the idea of a development university gained wide acceptance in Africa and had strong state support and involvement. The phase lasted between 1960 and 1975.

1.1.4.3   The second phase witnessed a process of politicization, tight state control and repression of students and staff in institutions of higher learning. This was not unique to universities as civil society organizations underwent similar experiences from the state apparatus. This period was marked by decline in economic growth and the introduction of structural adjustment policies. At any rate, this was a period of phenomenal expansion of higher education in Kenya, with the establishment of Moi University in 1984 as the second public university, and the subsequent elevation of Kenyatta, Egerton and Jomo Kenyatta University of Agriculture and Technology (JKUAT) to university status. The establishment of the Commission for Higher Education in 1985 and the emergence of private universities also occurred during this period. This phase was characterized by political tension, constrained academic freedom, decline in government funding for research and infrastructure such as libraries.

1.1.4.4   The third phase is characterized by expansion of democratic space in the Kenya as a whole. During this period, the universities have undertaken reforms and innovations in response to both internal and external pressures. Some of the reforms at the university level include appointment of Chancellors, competitive recruitment of senior administrators, unionization of teaching and non-teaching staff and

improved remuneration, and the widening space for students to organize and articulate their concerns through recognized unions and associations. Measures have also been taken to increase access and mainstream gender. Public universities have diversified funding through admission of self-supporting students to meet the growing demand for professionals in the country. This has led to expansion of facilities and programmes closer to the clients in various parts of the country. While this has widened access to university education, it has accentuated concerns for quality, relevance and equity in provision of higher education.

1.1.4.5   Despite the expansion of democratic space for change, public universities have been slow in creatively utilizing the existing opportunities to bring the necessary changes. The presentations made to the Board appreciated most of the changes that have occurred. The Board was informed of the continuing challenge to systematize, deepen and sustain the momentum for reforms and innovations.

1.1.4.6   The third phase started in 1996 and it is continuing. The work of the Board falls into this exciting phase of accelerating the process of reforms and searching for an appropriate model and strategies for the development of higher education in the country to meet the challenges of the century.

1.1.4.7   In reflecting on the three phases of development of higher education in Kenya, the Board has observed a sense of nostalgia for the first phase, a sense of pain for the second phase, and high hopes and anticipation for the current phase. The main achievement of university education for the whole period has been its contribution to the development of human resources starting from the transition from colonialism to the current era of knowledge society.

1.1.4.8   The Board was confronted with the critical issue of defining what kind of university the country needs in order to meet current and future challenges. Through interaction with all stakeholders, the Board

discerned that Kenyans want a university which is engaged in socio-economic and cultural endeavours and provides a broad liberal education that exposes students to an appreciation of arts, humanities and sciences. An education system that promotes critical thinking and inculcates skills, creativity, entrepreneurship and an appetite for learning among the learners. The envisaged university is one which is at the cutting edge of research and knowledge, and one that enables the country to acquire and utilize the benefits of scientific and technological development in its struggle against poverty and generation of wealth. Kenyans want a university education that is synonymous with quality and which prepares the individual and the country to be competitive in the knowledge economy.

1.1.4.9   Kenyans expect higher education to exert a positive influence on all their social institutions including governance, ethics, family, economics, recreation and social relations. Education has a pivotal role to play not only in influencing governance in Kenya. It follows from this that it is a paramount duty to invest adequate time, money and energy in the education of Kenyans.

1.1.4.10 It is, therefore, necessary to evolve an education that is conscious of the need of forming citizens capable of contributing and shaping good governance in society. It is inescapable that from his/her rational attributes and endowments, the human person is a political being. (Aristotle defined man as a political animal over 2000 years ago). One of the corollaries of the assertion that we are political beings is that there must be a place for freedom and responsibility in our society. Values of self-determination, freedom and duty to the community should be nurtured, among other places, in the universities and other institutes of higher learning. The university is one principal place to train present and future leaders in the art, skill and practice of good governance.

1.1.4.11 It is true that many of the skills taught, learnt and improved in the universities have a practical and pragmatic end. These skills often have

the utilitarian aim of achieving tasks in an efficient manner. While the acquisition of practical skills is one of the objectives of education, the Board has received pleas for providing an education that imparts human values and encourages its participants to seek truth and integrity. Our education system should not limit itself to merely solving proximate problems. There are long-term needs to be envisioned and values to be cherished and promoted. Our education plans are therefore challenged to take cognizance of these as well as being imaginative. There is a case to be made that university curriculum should be practical, with some of the aspects being broad and long range to encompass distant probabilities and possibilities. It has been argued in some academic circles that knowledge is capable of being its own end, as asserted by John Henry Newman, the eminent English educationist in his classic, *The Idea of a University*, just over 150 years ago.

1.1.4.12   The search for integrity and ethics should be the concern of an education system that is truly humanistic and holistic. The quest for integrity is of specific relevance to Kenya. This country comprises many ethnic groups and races. Here is an opportunity to celebrate our diversity. If properly utilized our ethnic diversity should be a source of strength, not a cause of fear and suspicion. In this endeavour, our universities have a unique role to play in nurturing this national consciousness. Without creating political programmes that brainwash or condition students, it is vital to evolve an academic milieu in our universities that encourages the community of scholars to celebrate unity in diversity.

1.1.4.13   Our universities should encourage an attitude that views education as a lifelong and continuous process. Indeed, this is one of the meanings of a liberal education. In a world where knowledge is changing and accumulating very rapidly, this takes even a deeper and more practical meaning.

1.1.5 The Context of the Development of Higher Education

1.1.5.1   The development of higher education in Kenya needs to be analyzed in the context of both national and international pressures. Locally, universities have to address the national agenda responsively while at the some time paying attention to international changes and discourses in teaching, development of ideas, research, science and technology. For this reason, institutions of higher learning have to maintain a delicate balance of being engaged in and relevant to the endeavours of the societies where they are located while maintaining their international character and standards.

1.1.5.2   Higher education in Kenya is faced with a complex web of rapid population growth, increasing poverty and multiplicity of diseases (malaria, tuberculosis, HIV/AIDS, bird flu etc). In the past, Kenya was among the countries that recorded the highest population growth. In the last two decades, family planning programmes by the government, civil society and grass root communities with the support of the international partners, coupled with programmes aimed at containing the HIV/AIDS pandemic have reduced the rate of population growth. It is estimated that about fifty six per cent of Kenyans live below poverty line. The majority is below 25 years of age and depends on peasant agriculture for their education and livelihoods. Hence, society faces an enormous challenge of providing basic and higher education in the context of rising demand at all levels of education, limited resources and persistent poverty. This reality exerts tremendous pressure on the government to implement initiatives such as free primary education, while enhancing equitable access to education at all levels.

1.1.5.3   Higher education in Kenya, particularly in the last three decades has experienced loss of highly trained and skilled personnel to institutions in other countries with lucrative incomes and better opportunities. This scenario has led to an exodus of experienced and qualified professionals to greener pastures in North America, Europe and Southern Africa. The

brain drain has impacted on the quality of teaching and research in the universities, and led to shortage of skills in some areas. Despite this, the country and institutions of higher learning need to think creatively on how they can utilize the highly skilled Kenyans overseas to improve the quality of education in national institutions. If well planned, this situation can become brain gain. The Central Bank estimates that Kenya is receiving approximately Kshs. 50 billion per annum in remittances from Kenyans living and working abroad.

1.1.5.4   In addition to internal pressures, international dynamics continue to shape the development of the country and higher education. Globalization, leading to liberalization of trade and commerce has opened the country to competition which is notable in the higher education sector. An equally important challenge is the scientific and technological change that has accelerated in the last two decades and ushered countries like South Korea, China, India and Singapore into the knowledge economy and prosperity. These countries have now become major competitors to North America, Europe and Japan for a share in the global market and wealth. Africa on the other hand has benefited least in the process of globalization. Hence the African continent remains the most marginalized in terms of share of international trade, scientific and technological innovations and economic development. Kenya, and other African countries, are rapidly being turned into "nations of hawkers" of other people's ideas, innovations, goods and services.

1.1.5.5   Globalization has led to breaking down of national boundaries in the provision of tertiary education and training. This poses a serious challenge to the traditional idea of a university. Kenyan universities are caught up in this whirlwind. The major driving force in this whirlwind has been the advancement and utilization of ICT in the delivery of higher education.

1.1.6 Challenges and Opportunities

1.1.6.1 The underlying and cross-cutting challenge facing the higher education sector in Kenya is how to meet the demand in the context of limited resources, competing needs and rising graduate unemployment, while at the same time ensuring equity in provision of quality education. The number of qualified school candidates to enter university has risen steadily over the last ten years and is projected to reach over 100,000 by 2015 when effects of FPE are felt at this level (see Table 2.2). In 2004 the number of candidates qualified was 58,000, rising to about 68,000 in 2005.

1.1.6.2 Future investments in higher education, by the government in particular, should therefore be based on the principles of competition, quality of academic and research programmes, existing and emerging needs in strategic areas, and efficient and accountable management of resources. In addition to articulating policy, the Ministry of Education should set firm benchmarks for institutions of higher education to achieve equity, quality, relevance, and effectiveness, efficiency in governance and management of universities.

1.1.6.3 To meet the twenty-first century challenges, universities should retain and mount academic programmes that will take cognizance of the competition resulting from the process of globalization of knowledge and adjust accordingly. They should, in particular, continue to play a leading role in making higher education more accessible by utilizing new information and communication technologies in delivery of teaching and learning, research and dissemination of knowledge in general.

1.1.7 Towards a Paradigm Shift

1.1.7.1 The Board has listened to Kenyans who made presentations, and has analyzed the documents made available to it. Consequently, it has been established that there is an urgent need for a paradigm shift in this sub-sector. This would interrogate the underlying assumptions and

conceptions of a university, its place, operation and contribution to Kenyan society. The shift entails cultivating a new vision for university and tertiary education, modes of governance and management, reformulating roles of various actors (the state, private sector, households, staff, students, etc), articulating its mission, relationships and engagements in service to society while safeguarding the international character.

1.1.7.2　The paradigm shift entails radical rethinking of the way institutions of higher learning are governed and managed; the way students are initiated and socialized into campus life; the way staff are attracted, recruited, trained, utilized, rewarded and retained; the way universities ensure the quality of learning, teaching and research is maintained and assured; and finally how funding of the sector is organized, managed and accountability secured in the broad context of increasing access and equity. While all these components of higher education are vital, the element of funding is pivotal in that all the others virtually hinge on it. This will necessitate a keen and close analysis of the paradigm shift as it relates to resource mobilization and funding in order to comprehend and assess how this will impact on all the other components to give rise to a transformed tertiary sector. In a word, if you alter the configuration of the financial arrangements and management, everything else in higher education is likely to change, including the underlying values. One of the tasks of the Board is to propose a prudent shift in funding arrangements that have beneficial consequences for the higher education edifice in the long run.

1.1.7.3　The major challenge to the Board is how this paradigm shift can be articulated and eventually realized. This report attempts to show how this shift can be undertaken, and the necessary reforms carried out, and mainstreamed, building on the strengths of higher education institutions (knowledge, research and human resources). At the same time, it seeks to recognize weaknesses and threats that universities need to address. The shift, above all, requires them to seize upon the opportunities and

benefits that accrue from the processes of innovation and transformation. For this paradigm shift to be realized, the ministries of finance, education and science and technology have to play the critical role of championing the changes and innovations, by creating an enabling legal and policy environment for the envisaged transformation. On the other hand, the Chancellors, Vice-Chancellors, Senates and the University Management and Administrators in both public and private universities have to champion internal institutional changes that have to be undertaken. To do so effectively, they have to work closely with their internal and external stakeholders. In the reform process, development partners can play a critical role by bringing in lessons from elsewhere and providing resources to jump-start reforms where needed, and to catalyze the on-going changes.

1.1.7.4   The process of transformation envisaged through this paradigm shift requires student communities to be proactive participants in bringing about changes in the way students transit and participate in post-secondary institutions, through embracing a culture of dialogue, accountability and responsibility as members of a community of learners and scholars. The transformation process also entails active engagement of parents, alumni and the private sector not only in making available financial and other resources necessary for higher education, but also in participating in the discourses intended to chart the future of higher education in the country. This is the essence of the new partnership envisaged in the sector. The cumulative result is that the university would be rooted in and responsive to the needs of Kenyans. The university would ultimately be turned into an autonomous, well-managed institution adhering to the highest standards of corporate governance. Its hallmarks would include shared visions and missions as well as participation of students, who are central to university, households, business and government in financing education.

1.2   CONCLUSION

1.2.1   The development of higher education in Kenya is at a crucial stage of providing a window of opportunity for far-reaching innovations and transformation. However, this transformation has to be anchored within the broad context of the national needs, regional opportunities and emerging global challenges of knowledge society. For institutions of learning to be part of the ongoing transformation of the societies, they have to address the critical issues of leadership, good governance and management. In addition, they have to provide equitable and widened opportunities for acquisition of skills, knowledge and positive values and attitudes, while safeguarding quality and institutional autonomy, ensuring, broad participation and partnerships, and diversifying sources of funding to sustain a dynamic research culture and excellence in teaching and learning. These are some of the essential pillars for envisaged transformation of higher education in Kenya.

Figure 1.1: Pillars for Transformation of Higher Education
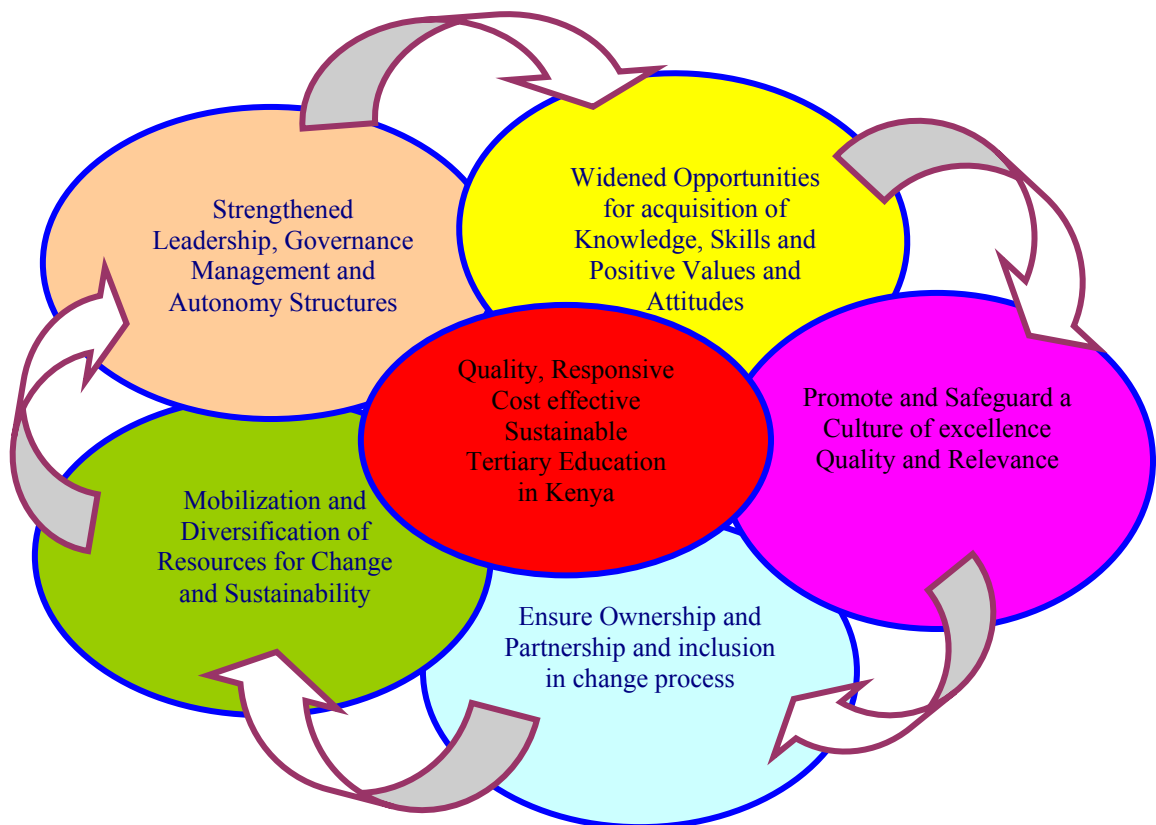
1.2.2   The Board has attempted to address these issues in the report but would like to concede that more work remains to be done at various levels of higher education to realize the full potential of the envisaged changes in the sector. In short, the report recognizes the power and potential of knowledge in the process of liberation and development of the Kenyan society. Hence, the Board provides a broad but critical roadmap for the transformation of higher education to engage society in the process of this challenge.

CHAPTER TWO

INCREASING ACCESS AND EQUITY IN HIGHER EDUCATION

2.1 NATURE, SCOPE AND EXTENT OF THE PROBLEM

2.1.1   The value of higher education lies in its capacity to improve the quality of life through socio-economic, political and technological development of the society. This is realized through advancement of knowledge, intellectual inquiry and research, acquisition of skills and competencies, inculcating appropriate value systems and desire for lifelong learning.

2.1.2   Since independence, Kenya has experienced rapid expansion of education at all tiers. The number of public universities in the last two decades has increased from one to six. Students' enrolment has increased from a mere 571 in 1963 to 7,418 in 1983 and to 18,943 in 1987 to 58,016 in 2004 and about 91,500 in 2005. This latter figure includes all students both in public and private universities but excludes students studying abroad, estimated at 30,000. Students undertaking university education offered by foreign universities through distance learning are not also included in these figures. The establishment and expansion of both public and private universities has also been one of the remarkable features of the development of university education in Kenya. Currently, there are 19 private universities, seven chartered, six with letters of interim authority, and six with certificates of registration. Several institutions have applied for authority to operate while others have applied for validation.

2.1.3   A critical issue facing the country today is how to increase access to higher education to cater for the incessant number of students completing secondary schooling, diploma holders and others who desire university education.

2.1.4   Two types of indicators tell us how well a country is performing in terms of access to higher education. First, the transitional rates to indicate those

completing high school and joining post-secondary institutions and second, the proportion in the age cohort (18-24) catered for in higher education institutions. The Board could not locate accurate data to determine the transitional rates. The figures (Tables 2.1 and 2.2) below are used to illustrate some of the major trends in accessing higher education.

2.1.5   In 1995, only 7.1 per cent of the cohort completing secondary education had access to public university education in the country while in 2005 the proportion had declined to 4.2 per cent (see Table 2.1 below).

Table 2.1: Trends of KCSE Candidates Attaining Grade C+ and above against those Admitted into Public Universities for the last ten years

Year	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
No of candidates	140,506	155,019	156,714	168,398	172,883	181,984	194,993	198,356	205,730	219,405	260,653
Increase in candidature		14,513	1,695	11,684	4,485	9,101	13,009	3,363	7,374	13,675	41,248
% increase in candidature		10.33%	1.09%	7.46%	2.66%	5.26%	7.15%	1.73%	3.73%	6.65%	18.81%
No at C+ and above	22,079	28,174	31,294	30,244	30,667	40,497	42,160	42,726	49,870	58,239	68,030
% of C+ and above	15.83%	18.49%	20.44%	18.16%	17.74%	17.74%	22.25%	21.63%	21.24%	26.54%	26%
No admitted to public Universities	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
No of qualified but not admitted	12,079	18,174	21,294	20,244	20,667	30,497	32,160	32,726	39,870	48,239	58,000

Source: Kenya National Examinations Council, 2005

Table 2.2: Trends in KCSE Candidature (at 6.5 % Increase per annum) and number Scoring an Average of C+ and above (20.69% of total candidature) for the next ten years.

Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Candidature at 6.5% increase per year	260,653 (actual)	277,569	295,584	314,767	335,195	356,950	380,115	404,785	431,056	459,031	488,822
Projected No. at C+ & above at 20.69%	53,929	57,429	61,156	65,125	69,352	73,852	78,645	83,750	89,185	94,974	101,137

Source: Kenya National Examinations Council, 2005

Figure 2.1: A: Linear Projection Based on 2003 to 2015 Students
**   B: Asymptotic Curve from Students Numbers in 1995 to 2015**
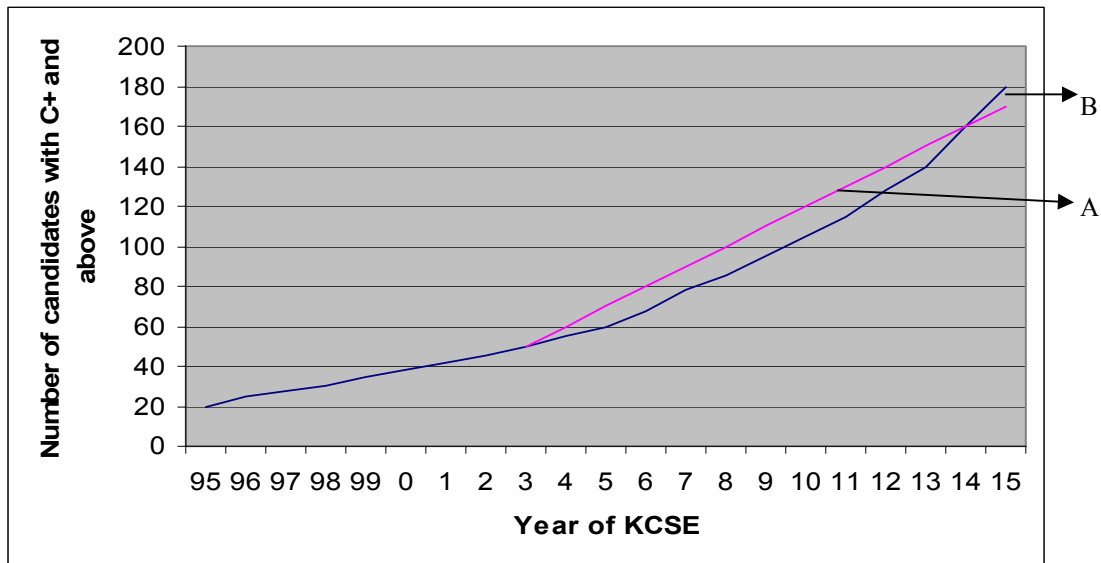
Source: Board Generated Data
Projected students numbers by 2015
A: 160,000
B: 180,000

2.1.6   The Board considers that this declining proportion of 18 to 24 year olds accessing university education is not an acceptable trend if Kenya is to meet its development objectives by the declared target dates. The ideal state is to reverse this trend and increase the proportion to a respectable ratio of at least fifteen percent by 2020. This projected ratio is half of the prevailing figures in the Organization for Economic Co-operation and Development (OECD) countries.

2.1.7   The number of students who are expected to seek university admission by 2015 is estimated to be in the range 160,000 to 180,000. A linear projection based on the number of students who qualified for university admission in 2003, 2004 and 2005 yields the lower figure; while the an asymptotic curve for student numbers for the period between 1995 and 2005 yields the higher figure. The assumption is that the population of the cohort sitting the KCSE will be between 600,000 and 860,000.

2.1.8   There are several factors that influence access to higher education in Kenya, among which are the following:

a)   Limited Resource by Government

In spite of the increasing number of qualified students, the government has continued to sponsor about 10,000 new students every year. This is indicative of limited resources and competing needs in the education sector.

b)   Limited Absorptive Capacity in Higher Education

Since 1970, when the first national university was established – the University of Nairobi (UoN), 35 years thereafter, only five more public universities have been established. Still, the public universities cannot absorb all qualified students. The establishment of private universities has hardly dented the problem because these institutions have very low enrolments. The 19 private universities have a total enrolment of only about 9,000 students.

c)   Unexploited Potential in Distance and Open Learning (ODL)

Experiences from other countries such as Tanzania, Nigeria, South Africa and the UK have demonstrated the potential of Open and Distance Learning (ODL) in increasing access. Kenya has not pursued this mode of delivery in a consistent and aggressive manner. As a result, Open and Distance Learning programmes are the individual initiatives of the local universities with limited government funding.

d)   Low Capacity in Marketable Courses

There exists low enrolment capacity in strategic and marketable courses such as medicine, engineering, computer science, dentistry, pharmacy, and actuarial sciences. This has led to many qualified students being shunted to their second or third preferences, and sometimes to programmes that they never chose, causing them great distress and frustrations. Others look for opportunities elsewhere. The Board has established that most of the students who go abroad do so to access academic programmes they had applied for locally but could not be admitted into. Another group of students go abroad in search of programmes which are not available in Kenyan universities. These

include areas such as aeronautical engineering, oil exploration, and marine engineering etc, (see Chapter 6).

e) Implications of Free Primary Education (FPE)

In January 2003, the government implemented the Free Primary Education programme. This resulted in an immediate increase of 1.3 million pupils in the primary schools. As some of these pupils were dropouts from the higher classes, the effect of this has already been seen in the increase in KCSE candidates and the number qualifying for universities. For example, the number of candidates with C+ in 2004 was about 58,000, while in 2005 this had increased to about 68,000. By 2015, when the first class one cohort of free primary education of 2003 sits for KCSE, the numbers will have escalated to approximately 160,000 to 180,000. The lower figure assumes a linear growth of 6.5 per cent while the higher figure is based on a graphic extrapolation of data between 1996 and 2005. The Board has referred to this phenomenon as ''The Tsunami effect'. This puts the whole issue of access in the forefront planning and development of higher education.

f) Impeded Development of Differentiated and Diversified Tertiary Education

The development of university education in the eighties and nineties was carried out at the expense of middle level colleges, some of which were converted into constituent colleges of the public universities. The Board notes that the emphasis on development of university education has led to the neglect of middle-level institutions at tertiary sub-sector. This has created a major gap in the training of technicians, technologists, sub-professionals and artisans. The country not only needs to increase opportunities for higher education, but also to cater for the acquisition and continuous learning of a wide range of skills and competences required for the development of a diversified and rapidly changing economy. To achieve this, it has become necessary to vary the ''routes'' for progression to higher education, instead of depending mainly on the one-track KCSE path to university (*Sessional Paper No.1, 2005*). This entails

placing emphasis on the development of middle-level colleges and training institutions that had hitherto not been the case two decades ago. This calls for a consistent and comprehensive planning of higher education.

2.1.9 An intriguing question is how to explain the persistent high demand for higher education in the midst of graduate unemployment. This seems to point towards the strong faith Kenyans have in education as a route to escape poverty and increase social mobility. One should also note that the rising qualification requirements (inflation of qualifications) for jobs in the labour market, with the implication that one has to have extra qualifications to have a competitive edge for the limited positions has increased demand for higher education. We may question whether an added higher education qualification by a worker does increase productivity, or is merely intended to enhance competitiveness. We cannot nevertheless fail to recognize instances where further training and qualifications do enhance competencies and acquisition of new skills e.g. ICT thereby increasing productivity of the employee. These qualifications are more important today in view of the need to acquire and upgrade skills needed in the knowledge economy.

2.1.10 The issue of access to higher education should be viewed in the light of its intrinsic value and power to enrich human existence and not just for employment. Currently, education is viewed as a human right; a tool of empowerment and enhancement of human dignity, development of talents and skills, good citizenship and the ability to participate in the affairs of the state.

2.1.11 The expansion of higher education opportunities in Kenya faces numerous challenges. These include; meeting the escalating demand for higher education while the country's national economy continues on the path to recovery; the persistent high levels of poverty; and limited resources both public and household. The dilemma is how to maintain a healthy balance in expenditures not only between basic and university

education, but also between education and other sectors such as agriculture, health, infrastructure and security. Second, there is need to cut down resource outflow and loss of potential talents by minimizing the number of students leaving the country in search of higher education. Third, there is need for public universities to become relevant and to improve on the quality of education they provide. It is also necessary to increase access by utilizing alternative modes of delivery such as distance education. Finally, there is need to provide equitable access to university education for all Kenyans.

2.2   INCREASING ACCESS TO HIGHER EDUCATION

2.2.1 Existing Public Universities

2.2.1.1   Some of the challenges facing the public universities in meeting the escalating demand are to expand access particularly in the highly marketable degree programmes; continuing to de-link university admissions from bed spaces, and integrating government and self-sponsored students so that they are treated as one student body as far as their admission, tuition, and management are concerned.

2.2.1.2   As observed, one of the main features of public universities in Kenya has been rapid expansion in enrolments of both regular and self-sponsored students. While all private universities have been expanding to cater for self-sponsored students, the expansion is much more noticeable in public universities. This expansion of the self-sponsored programmes needs to be critically analyzed in terms of its impact on the mission of the university, quality of education provided, adequacy of facilities, demand for certain programmes, clientele being served, and potential in future. The Board received presentations which expressed concern that public universities have not utilized the financial benefits which accrue from self-sponsored programmes to expand facilities but rather to meet expenditure deficits.

Figure 2.2: Student Enrolment in Universities (2000/01–2004/05)
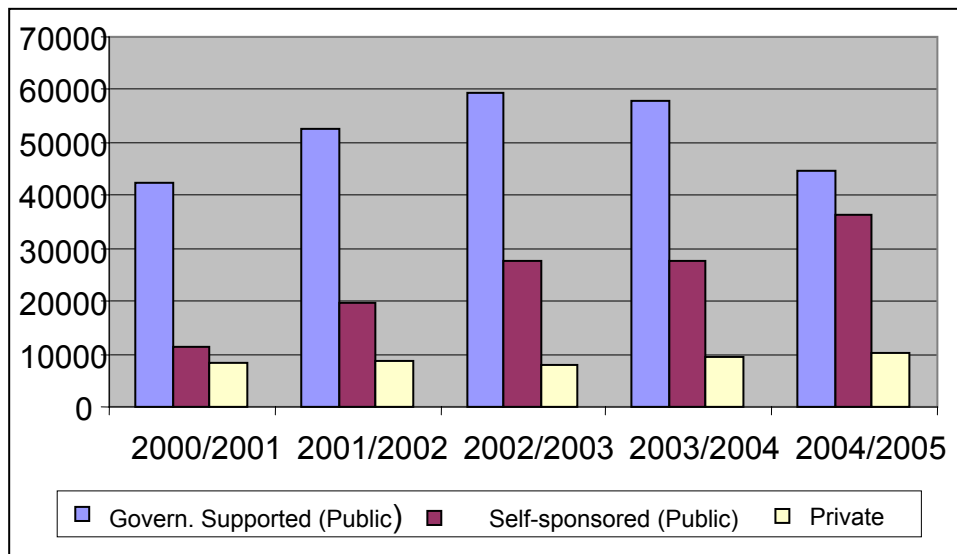
Source: Ministry of Education, Science and Technology, 2004

2.2.1.3   Figure 2.2 above shows comparison of student admission to self-sponsored programmes, government supported and private universities. It indicates that the total number of students attending universities in the country each year is about 90,000. The figure also shows the decline in enrolment in the academic year 2004-2005 as compared to the previous year, 2002-2003. The apparent reason for the increase of students in the academic year 2003-2004 could be that students were taking too long to complete their studies as a result of frequent closures of the universities due to student unrest which affects management of resources in public universities. The universities lose time and money by maintaining lecturers, other workers and infrastructure during periods of long unnecessary closures.

2.2.1.4   The current admission policy to public universities for regular students is based on results of the Kenya Certificate of Secondary Education (KSCE). The Joint Admissions Board (JAB) then sets cut-off points based on the capacity of various programmes offered in public universities. The enrolment capacity in programmes that are in high demand is constrained in courses such as medicine, law, commerce whose admission criteria are grades A and A- only. During the admission process, applicants who

are not able to secure a place into such programmes are offered courses they consider irrelevant to their career aspirations.

2.2.1.5   The admission procedures are not flexible for regular students to enrol in their preferred courses in public universities, on when it is convenient for them to embark on their studies. On the other hand, the self- sponsored students are admitted to courses of their choice and when it is convenient. The admission criterion of self-sponsored students is set by each university, and in many instances has lower cut-off points. Presentations made to the Board point to the need to allow each university to admit its students while CHE sets the policy guidelines on admission criteria (see Chapter 8). Although authority of admission will be vested with each university, there will be need to demonstrate transparency, equity and fairness in each institution. This will allow for fair competition and diversification of students' intake and programmes offered. Currently there are students who feel discriminated against as they can not afford the high fees charged in SSP.

2.2.1.6   Currently, the admission of regular students to public universities is linked to accommodation capacity. This policy is outdated and denies public universities opportunities for beefing up enrolments without major capital expenditure. Presentations made to the Board indicated that this practice diverts resources and energies of public universities from their core business. De-linking of admission from available accommodation would allow universities to expand their intake. On the other hand, the process of de-linking admission from the inadequate accommodation should be programmed systematically to allow for private management of university hostels and the development of private accommodation in the vicinity of universities. Strathmore University is a good example of an institution that has entered into dialogue and partnership with private investors for this purpose. Others could learn and improve on this experience.

2.2.1.7 Public universities are also extending their accessibility by opening other campuses and centres closer to their customers and have entered into agreements with both public and private institutions to offer university education. Their presence is now felt in all major urban areas. The bridging courses offered by the public universities are intended to attract potential students into their programmes. Commercialization of degree programmes by public universities raises the questions of whether the quality of education offered has been affected. To address this issue, the Commission for Higher Education (CHE) has developed guidelines that should be adhered to by all universities in their expansion programmes. These include: - standards for physical facilities and curriculum development for university libraries, lecture rooms, etc. The Board is aware that these standards are hardly followed, as public universities have never been under the scrutiny of CHE for accreditation and quality assurance.

R*ecommendation: 2.1*

a) *The enrolment capacities of the existing public universities should be assessed to establish programmes that may be phased out, retained or expanded without compromising on quality, while unpopular programmes should be rationalized to pave way for the establishment of market-driven programmes.*

b) *The admission of students to public universities should be de-linked from the availability of bed spaces, but linked to availability of academic facilities by 2008.*

c) *The management and maintenance of the available accommodation in the public universities should be privatized.*

d) *Public universities should enter into dialogue with private entrepreneurs to develop appropriate accommodation, taking into consideration student needs, learning, and safety and health requirements.*

e) *Universities should study ways of managing available space for optimal utilization.*

f)   *CHE should set admission criteria and each university should carry its own admissions within the set guidelines.*

2.2.2 Private Universities

2.2.2.1   To encourage private universities to increase their enrolment and diversify their curriculum offerings, a number of issues need to be addressed. First, it is important to acknowledge and appreciate the contributions these institutions are making to the development of higher education in the country. Since these institutions provide a "public good" to the country, incentives should be given to enable them to expand their capacities and facilities for increased access. Second, it is important to create formal mechanisms for their involvement in higher education policy making, planning and resource allocation.

2.2.2.2   Since the enactment of the Universities Act of 1985, private universities have increased in terms of numbers, faculties and enrolment. While they offer alternative channels of access to higher education, they are still, as already pointed out, offering only limited opportunities. However, private universities offer potential for providing new opportunities, diversified curriculum and orientation to the needs of the market. To enhance their capacities, they need support of all education stakeholders. This will enable them to expand their facilities, strengthen their capacities and widen the range of courses offered. This support could take the form of either the provision of services and infrastructure (access roads, initial installation of power, water and communication facilities) or development grants.

2.2.2.3   The Vice-Chancellors of private universities in their presentations to the Board also said that such other incentives as tax rebates and exemptions on loan guarantee and land grants could assist them to develop and expand their institutions and thus enhance access. They also pointed out that a more effective, flexible and enabling regulatory framework would

speed up introduction of new programmes which will in turn attract additional students. The incentives provided could encourage the investors in this sector to establish their campuses and outreach centres in various parts of the country.

2.2.2.4   The growth of private universities in Kenya as in many other African countries has been due to the public system's failure to meet increasing demands for higher education. Private higher education institutions have continued to register steady increase in enrolment as will be shown in Table 2.3 below. The universities grew in number from 3 in 1985 to 19 in just two decades.   These institutions save the country money by supplementing the provision of education at this level. For example, if the government were to support the approximately 10,000 students in the private universities at the current rate of Kshs. 120,000/= per student, it would pay Kshs. 1.2 billion annually. This would be even higher if other costs were taken into consideration. On the other hand if these students had gone abroad the country would have lost much more in terms of foreign exchange.

Table 2.3: Private Universities Enrolment from 2000 – 2005

	2000/2001			2001/2002			2002/2003			2003/2004			2004/2005		
	M	F	% F	M	F	% F	M	F	% F	M	F	%F	M	F	% F
Accredited	3093	4050	56.70	3122	4089	56.71	3476	4163	54.50	3650	4371	54.49	3796	4546	54.50
Unaccredited	876	472	35.01	949	511	35.00	748	742	49.80	763	757	49.80	801	907	53.10
Total	3969	4522		4071	4600		4224	4905		4413	5128		4597	5453	

Source: Commission for Higher Education, 2005

2.2.2.5   With the exception of a few, most private universities in Kenya have a religious foundation and orientation in their core values. As pointed out above, majority of these institutions have limited capacity, with total student enrolment ranging from about 100 to 2500 in each institution.

2.2.2.6   Private universities rely heavily on part-time staff drawn mostly from public institutions. This has a strong implication on quality of delivery of academic programmes in both private and public universities. In addition, the supply of such part-time lecturers cannot always be guaranteed

especially with the expected rapid growth of enrolment at the public universities.

2.2.2.7 The critical point to note and appreciate is the fact that all private institutions in Kenya depend mostly on tuition fees to finance their activities. This strong dependence on one source of income makes these institutions expensive and thereby unaffordable to most Kenyans. There is need, therefore, for these institutions to develop strategies of diversifying their incomes. This will in effect make the tuition affordable to many Kenyans and thereby improve access.

2.2.2.8 The recommendations below are intended to strengthen their resource base for investments in core learning and teaching activities. As already stated, private universities have the potential of increasing access to university education; however, they need to be supported to realize their full potential.

Recommendation: 2.2

a) *Private universities should be supported by the government to realize their full potential, with the following possible incentives; initial provision of grants, infrastructural development, land, sewage system, access roads, water, electricity and communication systems. The provision of the infrastructure and land would be incentives for the location of private universities outside the main cities.*

b) *Where public facilities are provided to private universities, the expectation from them would be, in turn, to increase the number of students admitted and introduce new courses that are relevant to the economic needs of the country.*

c) *Private universities need to be accorded the same treatment as public universities in terms of access to public research funds and staff development funds.*

2.2.3 Middle-Level Colleges

2.2.3.1   Post-secondary technical and vocational training in Kenya is provided through four public national polytechnics namely Kenya, Mombasa, Kisumu and Eldoret, and through technical training institutes and institutes of technology. There are other public education and training institutions which are not under the auspices of the ministries of Education and Science and Technology but are managed by the relevant line ministries according to the type of training they provide.

2.2.3.2   While university education system has expanded by opening new universities and increased intakes, the same cannot be said of the vocational and technical education and skills training system in general. After the establishment of Harambee institutes of science and technology and the conversion of technical secondary schools into institutes of technology in the 1980s, no new public institutions have been established. Facilities in these institutions have hardly been modernized in the last two decades, making them inadequate for training in modern skill requirements. Expansion and modernization of these institutions are not only paramount to increasing access but also in making the training offered relevant to skills demands in the economy.

National Polytechnics

2.2.3.3   Kenya has four national polytechnics which have been providing middle level training and skills linked to industry. Since some were established in the sixties, they have played a critical role in meeting professional and technical training needs of both public and private sectors. An immediate concern is how these institutions could become degree granting institutions in the field of technology while still maintaining their core business of training technicians and middle level professionals.

2.2.3.4   The Board observes that while there is great clamour for these institutions to be upgraded to provide technical degrees for those who have achieved higher level diplomas, they do however lack capacity and mechanisms of

ensuring quality academic programmes and appropriate governance structures expected of degree awarding institutions. There is need for a new legal framework to cater for the new changes and allow them to disengage their management and governance from the Ministry of Education and expand recruitment beyond Teachers Service Commission (TSC) as is currently the case. The polytechnics would then have the responsibility of competitive hiring of qualified staff and where necessary upgrading the knowledge and competencies of staff needed in the degree programmes.

2.2.3.5   The Board has learnt that the Ministry of Education in cooperation with the Government of Italy has initiated the upgrading of both Kenya and Mombasa Polytechnics to offer Bachelor of Technology degree programmes. The Government of Italy has provided equipment for this purpose and experience. Kenya can also learn a great deal in this field from India whose India Institutes of Technology (IIT) have played a major role in the technological innovations for the development of the knowledge economy of that country. On the other hand, for these institutions to face the challenges that come with the provision of degree programmes, more resources will be required for upgrading their facilities such as laboratories, ICT and libraries and for human resource capacity building. The Board has noted that some resources have been allocated by the Ministry of Education to enable these institutions to prepare for the transformation of their status.

National Technical Universities

2.2.3.6   With upgrading of the programmes of the two polytechnics to offer degrees in technology, these will join Moi University and Jomo Kenyatta University of Agriculture and Technology to form a national platform for the development of universities focusing mainly on technology and innovations.

Recommendations: 2.3

a) *A high level technical committee be appointed immediately (2006) to guide the upgrading of Kenya and Mombasa Polytechnics into degree granting institutions. The technical committee would also provide a roadmap to be followed by other institutions (Kisumu and Eldoret Polytechnics and Kenya Science Teachers College etc.) that wish to move to degree awarding status.*

b) *The government should promote technical co-operations with countries such as India, Italy, South Africa, France and United Kingdom to enable these Institutions to establish linkages with foreign institutions that have gone through similar processes of transformation. This would enable them to learn from the experiences of others and at the same time get exposure and hopefully technical assistance that would enable them to fast track the envisaged changes.*

d) *Targeted support to national polytechnics should continue until the institutions have matured and become viable with capacities to offer technical degrees, while retaining their status as polytechnics.*

Other Middle-Level Colleges

2.2.3.7   Apart from the polytechnics, there are other training institutions that play critical roles in producing middle-level professionals, technicians and artisans. For example, there are 30 primary teacher training colleges (20 public and 10 private), three diploma level colleges (KSTC, KTTC and Kagumo). Other notable institutions include: the Kenya School of Monetary Studies, the Kenya College of Communication Technology (KCCT), Utalii College, Kenya School of Insurance, Kenya School of Law, the Kenya School of Aviation and a number of agricultural training institutions. There are also many private providers that train in diverse fields such as computer science, accountancy, aviation and mechanical engineering. Recognition of their qualifications as criteria for admission to degree programmes would make middle-level colleges a channel for

access to university education. There is an urgent need for assessment of the infrastructure in these colleges, relevance of the courses offered and the human resource capacity available.

2.2.3.8   As the government grapples with the challenges of increasing access to universities, long-term strategies should be worked out to see how opportunities at tertiary level are not only expanded and enhanced, but that there is, also, vertical and horizontal mobility of students in the sector to acquire skills and competences wherever they are available and are qualified to do so. The proposed credit transfer under the auspices of CHE (*Sessional Paper No. 1, 2005*) is intended to facilitate these movements. Hence, the Board would like to underscore the need for a comprehensive and diversified, but interactive development of tertiary education.

Table 2.4: Enrolment to other Tertiary Institutions: 2001 –2005

Institutions	2001		2002		2003		2004		2005	
	M	F	M	F	M	F	M	F	M	F
National Polytechnics										
Kenya	4523	1385	4586	1984	4488	2016	3,272	1,528	3,352	1,629
Mombasa	3567	1092	3149	1401	2647	1390	2,778	2,436	2,136	1949
Kisumu	785	240	947	410	937	421	937	433	998	520
Eldoret	647	515	1527	660	1523	684	1,675	752	1,759	820
Sub Total	9522	3232	10209	4455	9595	4511	8662	5,149	8,245	4,918
Other Institutions										
Technical Training Institutes	5295	4160	5547	4539	5436	4448	9,653	8,350	9,846	8,684
Institutes of Technology	4674	3672	4898	4007	4800	3927	4,715	3,755	4,904	3,943
Sub Total	9969	7832	10445	8546	10236	8375	14,368	12,105	14,749	12,627
Public Primary Teachers (P1)	8310	7399	8140	7590	8279	8515	8380	9238	8540	8864
Private Primary Teachers (P1)	1243	1268	1089	1133	1044	1178	1117	1213	1340	1456
Diploma Teachers	1213	916	1313	912	1185	935	1063	828	1170	910
Total	10766	9583	10542	9635	10508	10628	10560	11279	11050	11230
Grand Total	**30257**	**20647**	**31196**	**22636**	**30339**	**23514**	**33590**	**28533**	**33044**	**18775**

Source: Ministry of Education, Science and Technology, 2005

2.2.3.9   Technical institutes and colleges should have opportunities of offering technical degrees without compromising their capacities to provide

middle-level professional training for which they were established. For this to happen, institutions that desire to move through this route should undertake detailed studies and planning. Such institutions should be initially affiliated to the existing universities. This will enable them to put in place their academic programmes and mechanisms for quality control. Regulatory framework should be in place to enable the CHE to grant the necessary authority for polytechnics to move in this direction. This should involve changes in governance, academic programmes, staffing and budgetary allocation.

2.2.3.10 The persistent challenge to tertiary public institutions is to become innovative and creative in providing skills required in the rapidly changing market. The Board notes that there is a danger of these institutions being caught up in the race to acquire degree granting status rather than providing Kenyans with requisite opportunities for acquisition of skills and know-how demanded in the market place. Hence, the Board strongly recommends a balance between non-degree and degree courses in tertiary institutions.

Recommendation: 2.4

a) *A systematic, planned and demand-driven development of middle-level colleges to provide education and training required for modernization, innovation and industrialization of the country should be carried out.*

b) *Existing middle colleges should be upgraded in terms of facilities and curriculum modernized and staff development undertaken to respond to emerging needs.*

c) *For every university opportunity in the country, there should be a minimum of five middle-level training opportunities provided by both public and private tertiary institutions.*

d) *The training provided in these institutions should be taken into consideration for university admission as well as entry into other tertiary programmes through an institutionalized credit accumulation and transfer system at all levels (see Figure 2.3 below).*

e)   *A regulatory framework under a Higher Education Act should be put in place to grant the necessary authority for polytechnics and other institutions to offer technical degrees through affiliation with existing universities.*

Figure 2.3:   Accessing Higher Education in Kenya.
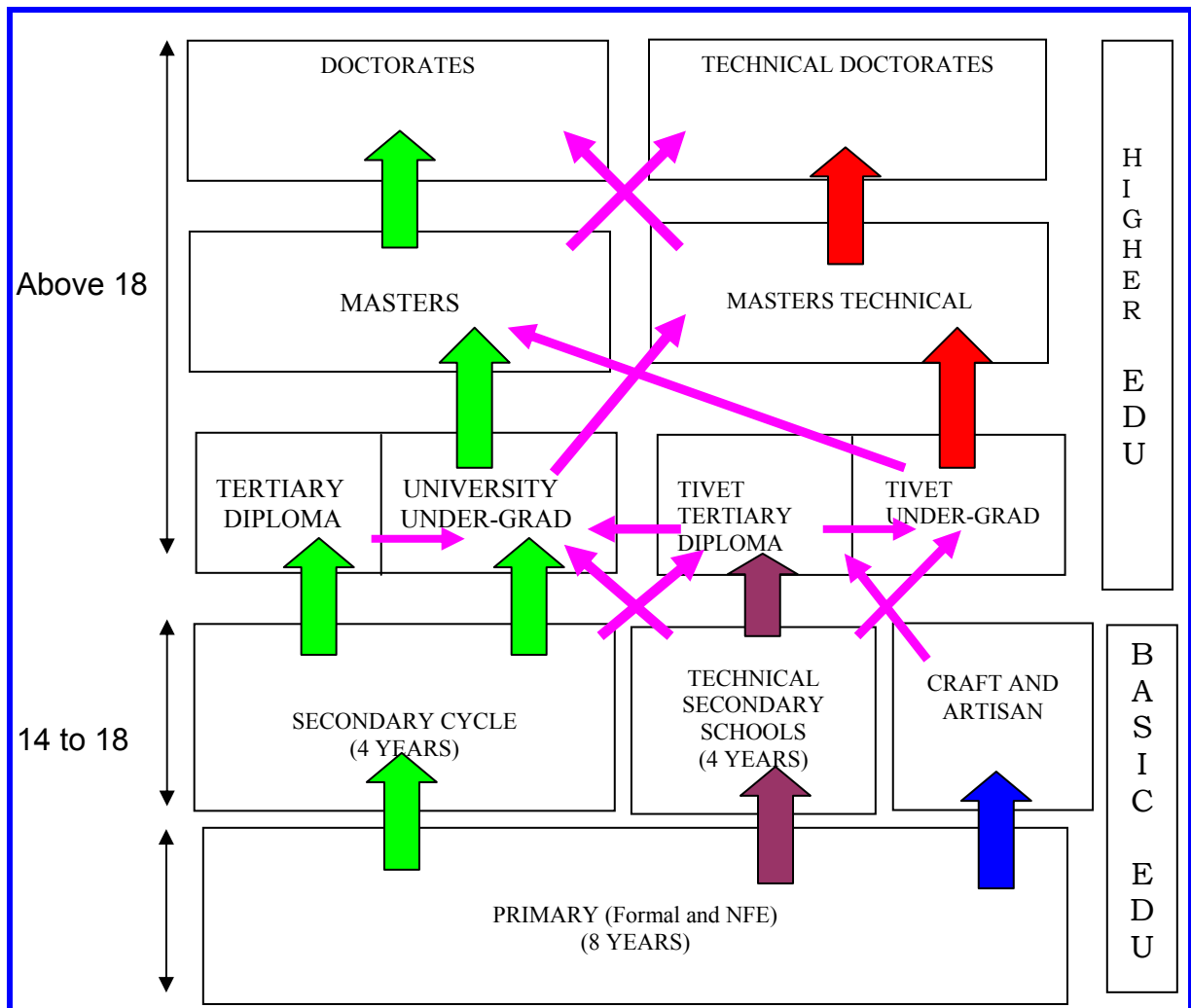
Source: Adopted from the Ministry of Education, Science and Technology, *Sessional Paper No.1 of 2005,* p. 34.

2.2.3.11 The figure above indicates the much needed openness for increased access to tertiary institutions. The Board appreciates the idea, but would like to see more openness of access at this sector, to accommodate a wide range of population that seeks to improve their skills, knowledge and competencies. This is particularly necessary to incorporate the concept of lifelong learning and up-skilling. This calls for a more open system to provide opportunities for continuing education at all levels. The Board

would like to suggest that a definition and measurement of learning achievement, skills and competencies needed to enter each level of education, and to be attained on completion of that level be worked out to allow those who do not go through the formal education system access tertiary education. Currently, access to each level of education is done mainly through passing formal education examinations.

Recommendation 2.5

Access to tertiary institutions should be opened to those who have acquired knowledge, skills and competencies in non-formal settings in addition to the current practice of admitting students who have gone through the formal school system and attained the required academic admission criteria.

Community Colleges and Institutes

2.2.3.12   Access to and equity in higher education can also be increased through the establishment of community colleges and institutes. Kenyans have a long tradition of establishing and managing education institutions through self-help efforts. Initiatives of this kind should be encouraged and supported where possible by communities, local authorities, municipalities with support from central government. Such institutions would provide education and training in areas of economic and technological needs of the region where they are situated. Such institutions can become vehicles for improving rural productivity, improvement in health, education, water and sanitation, energy and sustainable environment. These colleges/ institutes can be public or private and may be affiliated to institutions of higher learning. They should be accredited and validated by the Commission for Higher Education. These types of colleges would provide opportunities for able students who are not admitted to other tertiary colleges and universities thus increasing opportunities through partnerships. Students who excel at this level can use credit transfer mechanisms developed by CHE to access other institutions (see Figure 2.3 above). As colleges accredited by CHE, those pursuing courses in them would qualify to compete for HELB loans

and bursaries that may be available for strategic training and acquisition of technical and technological skills.

Recommendations: 2.6

    a)   *The Board recommends that the proposed concept of community colleges and institutes be studied thoroughly before being promoted to the local communities. The study should include learning from past experiences of institutes of technology as well as experiences of other countries such as India, North America and the Peoples Republic of China.*

    b)   *Guidelines on the establishment, government support and what is expected of those initiating community colleges should be spelled out.*

    c)   *The ministries of Education and Science and Technology should spearhead the implementation of this concept.*

    d)   *Resources allocated under Constituency Development Fund (CDF) could be utilized to supplement community and individual initiatives in the development of such institutions.*

2.2.4 Establishing and Locating New Public Universities and Colleges

2.2.4.1   Institutions of higher learning are viewed as not only increasing higher education opportunities, but are also as magnets for local development in areas where they are located. They create employment but also give Kenyans of different cultures opportunities to interact, thus creating harmony and unity for national development. The clamor and demand for establishment of universities in each province have been noticed in almost all the areas that the Board visited. The Board notes that each province in the Republic has unique contribution to make in enriching national common good in terms of material and human resources.

2.2.4.2   The Board is convinced that creation of new universities in the various provinces will raise educational achievements and promote regional development. The 2005 UNDP Kenya Human Development Report shows that the national education attainment index stood at 0.667. The

provinces that ranked below the national average included Coast at 0.593, Eastern at 0.625 and North Eastern trailing all the provinces at 0.480. None of these provinces has a public university. Provinces ranking above the national average are Central at 0.837, Nairobi at 0.763, Nyanza at 0.720 and Western at 0.710. The provinces that rank better had a head-start in education during the colonial and immediate post-colonial periods.

2.2.4.3   To foster equitable growth, national cohesion and solidarity, the promotion of education in the Coast, Eastern and North Eastern provinces requires careful, deliberate and sustained planning and attention. The emphasis on neglected sectors (marine science, sea transportation and dry land farming) will spur economic growth at the local and national level. Pursuant to this objective, the Board considers the following principles to be taken into consideration to guide the process:

    a)   Geographic location to spur economic, infrastructural and social development and strengthen the human capital of the region;

    b)   Promotion and development of strategic resources such as the ASALs paying attention to dry land farming, renewable energy, livestock production, tourism, marine resources, and mineral exploration etc and broaden participation in the national, regional and global economy;

    c)   Increase in overall access to higher education especially in programmes that are not adequately provided for by existing institutions, and for areas that have had low representation in admission;

    d)   In planning of new colleges and universities, consideration should be given to building on existing institutions, and, where possible, transferring some mature departments to the newly established institutions instead of starting from the scratch. For example, the fisheries and tourism departments currently based at Moi University could be relocated to the Coast.

Recommendation: **2.7**

a) *On the basis of the above criteria, a public university in Coast Province should be established focusing on fisheries, oceanography, tourism and marine studies. Another university should be established in the Eastern Region focusing on dry land farming, environmental and water studies; and another one at North Eastern focusing on livestock development, renewable energy (solar and wind) and environmental studies.*

b) *New public universities should be established on the basis of proper planning, availability of resources, opening new frontiers of knowledge and research and be a catalyst for human capital and infrastructure for national and regional development.*

c) *New universities should be well-planned, appropriate and where possible utilize available facilities.*

2.2.5 Alternative Delivery Mechanisms

2.2.5.1 The demand for access to tertiary education and in particular university education will continue to outstrip available supply: Consequently, the country has to explore alternative methods of extending opportunities to a diverse range of Kenyan learners. With the development of ICTs, Open and Distance Learning (ODL) offers the promise, flexibility and potential which need to be explored and exploited.

2.2.5.2 In formulating suitable strategies, Kenya should learn from experiences from other countries where ODL programmes have been successfully implemented. Commonwealth countries have in the past, utilized the services and expertise from the Commonwealth of Learning (COL) in Vancouver, Canada. Kenya could also make better use of available local expertise and local institutions.

Building on Existing Open and Distance Learning (ODL) Programmes

a)   Open and Distance Learning in the University of Nairobi

2.2.5.3   Open and distance programmes at the UoN are offered through the Faculty of External Studies based at the College of Education and External Studies at Kikuyu. The faculty comprises three departments: the Department of Educational Studies (DES), Department of Extra Mural Studies (DEMS) and Department of Distance Education (DDE).

2.2.5.4   The Department of Educational Studies offers: Bachelor of Education (Arts and Science), postgraduate diploma in education, post-graduate diploma in the control and management of sexually transmitted diseases which is co-offered with the Department of Microbiology at the School of Medicine. The faculty has network centres in Mombasa, Kisumu, Kakamega, Nairobi, Nyeri, and Nakuru.

2.2.5.5   The Department of Extra Mural Studies offers postgraduate diploma in human resource management and postgraduate diploma in project planning and management, diploma in sales and marketing, diploma in business management, diploma in human resource management and diploma in public relations. Certificate courses offered in this department include: Certificate in guidance and counselling, public relations, personnel management and purchasing and supplies. Table 2.5 summarizes students' enrolments in these programmes for the academic year 2004/2005.

Table 2.5: Students' Enrolments in the Faculty of External Studies University of Nairobi, 2004/2005

Department	Programmes	Number of students
Extra Mural Studies	Diploma courses	400
	Postgraduate diploma courses	40
	Certificate Courses	1,500
Educational Studies	Bachelor of Education (Arts)	3,500
	Postgraduate Diploma in Education (PGDE)	30
Distance Studies	Diploma in Adult Education	20
	Diploma in Youth Development work	55
Total		5,545

Source: Faculty of External Studies, University of Nairobi, 2005

b) Open and Distance Learning in Kenyatta University

There are two schools that offer ODL at Kenyatta University:

i) The School for Continuing Education:

2.2.5.6 The history of distance learning at Kenyatta University dates back to 1998 when the School for Continuing Education was established. The School mainly runs education programmes for the B.Ed. in Primary, Secondary education and M.Ed. for Primary Teacher Education (PTE).

ii) Institute of Open Learning:

2.2.5.7 The Institute of Open Learning was established in 2003 to offer distance education programmes using courseware from the Indira Gandhi National Open University in India within a collaborative framework. The institute is well-established with a network of 8 regional support centres based in Nairobi, Nakuru, Kisumu, Nyeri, Embu, Garissa, Kakamega and Mombasa.

Table 2.6: Students' Enrolment since 2003-2004 in All Centres

School	Nairobi	Nakuru	Kisumu	Kakamega	Nyeri	Embu	Garissa	Mombasa	Total
SPAS	264	82	53	19	103	23	4	58	606
SHSS	512	53	110	67	131	70	26	197	1,166
SE	451	183	187	132	142	183	40	162	1,480
Total	1,227	318	350	218	376	276	70	417	3,252

Key: SPAS: School of Pure and Applied Sciences
    SHSS: School of Humanities and Social Sciences
    SE: School of Education
Source: Board Commissioned Paper, 2006

E-Learning Initiatives at the Universities:

2.2.5.8 Public universities are increasingly utilizing modern technology to enhance e-learning initiatives. E-learning refers to instructional content or learning experiences delivered or enabled by electronic technology. In practice, e-learning incorporates a wide variety of learning strategies and technologies, from CD-ROMs and computer-based instruction, to videoconferencing, satellite-delivered learning, and virtual educational networks. It includes a range of ways in which students and teachers interact and communicate. It involves the delivery of course materials, tuition, or assessment and can be either: asynchronous (one-way)

learning, which is defined as learning in which teacher/student interaction occurs intermittently with a time delay; or synchronous (two-way) learning, which is defined as real-time, instructor-led online learning in which all participants are logged on at the same time and communicate directly with each other. E-learning can be either classroom-based or delivered via distance mode.

a) E-Learning Initiatives at the University of Nairobi

2.2.5.9 E-learning initiatives at the University of Nairobi are at embryonic and piloting stages. The Board observes that this initiative has potential of increasing access and spearheading e-learning in the country.

b) E-Learning Initiatives at Kenyatta University

2.2.5.10 E–learning initiatives at Kenyatta University go back to 1998 when the African Virtual University (AVU) was established. At present, Kenyatta University has made great progress in the integration of e-learning as an instructional delivery mode. The university currently subscribes to blackboard learning management system. The use of blackboard was adopted in 2004 and a number of courses that are being developed to be offered through this platform. However, just like the University of Nairobi, no courses are as yet offered through e-learning.

c) E-Learning via African Virtual University (AVU)

2.2.5.11 The African Virtual University (AVU) an idea initiated by the World Bank in 1996 is a distance learning initiative that relies on the use of satellite technology and the Internet to allow cost-effective and efficient delivery of educational programmes and in particular in sciences and engineering. AVU is registered in Kenya and has its headquarters in Nairobi.

2.2.5.12 AVU objectives include, among others, increasing access to tertiary and continuing education in Africa by reaching a large number of students and professionals in multiple sites simultaneously through modern technologies. It has also the task of improving the quality of education

through tapping the best African and global academic resources, and by offering training and coaching academics in African universities. During the pilot phase, AVU sites received courses transmitted via satellites such as introduction to programming, introduction to engineering, computer organization, architecture, introduction to Internet, among others. These are transmitted via satellite from universities in Europe, North America and Australia.

2.2.5.13 AVU has programmes in six Anglophone countries and established contacts in six francophone African countries and locally collaborative arrangements with a number of universities such as Kenyatta, Nairobi, Egerton, and Moi.

2.2.6 Challenges to the Development of Open and Distance Learning

a) National Policy

2.2.6.1 The Board observes that there is no clear national policy to guide and govern Open and Distance Learning in Kenya. Consequently, distance education programmes in higher education are generally disjointed and run on *ad hoc* basis. A national consultative Forum on Open Learning and Distance Education held in September 2004 recommended that a national development plan and agenda be formulated and articulated. A task force for this purpose was established. Despite lack of a clear national policy, the Board appreciates that public universities have articulated in their strategic plans policies to guide the development of ODL.

b) Capacity Building

2.2.6.2 There is an urgent need to invest in human resource development for open and distance learning to expand and for its potential to be realized. Notably, there is a serious shortfall in capacities for curriculum design and course content, (writers, reviewers, editors and curriculum developers etc) for production and development of high quality learning materials. To develop high level human resource in all areas in order to

have adequate national capacities and capabilities such as subject experts, media experts, technical operators and maintenance personnel are required.

2.2.6.3 Capacity building is therefore an essential prerequisite to jumpstart and accelerate developments in this field. Good quality production facilities such as studios should be developed through partnership between the universities, the government, private sector, civil society and development partners in order to unlock the potential that lies in this field.

c) Infrastructure

2.2.6.4 A major challenge is the cost of establishing the infrastructure needed for ODL. The cost is prohibitive as it entails investment in ICT, printing and reprographic equipment, etc. There is also need to install reliable electricity supply. The Board appreciates that several public and private universities have invested heavily in infrastructure such as fiber optic connectivity, equipment, studios and printing houses. Future investment should build on these initiatives.

d) Learners' Support Systems

2.2.6.5 Students who opt for ODL have learning and teaching requirements like any other students, in many instances they are not catered for. In addition, they need to have access to information through Internet, libraries and documentation centres which are traditionally provided in the universities. In planning of ODL, all aspects of students' support systems need to be incorporated and resources provided. This is an area that tends to be neglected and can negatively impact on the quality of education provided.

e) Funding

2.2.6.6 From the above, there is need for major investments in ODL in capacity building, infrastructure and support systems for students enrolled in programmes in ODL. HELB loans could also be accessible on the same basis as other students. Partnership between government, private sector

and development partners is urgently required to bring into operation the necessary innovations and technologies related to ODL.

Recommendations: 2.8

a)   *The Board recommends that a national policy on Open Learning and Distance Education be formulated in consultation and partnership with all stakeholders. Such policy should address capacity building, infrastructure, learners' support systems and funding.*

b)   *The government should also establish Open University of Kenya by 2008 drawing on the experiences and expertise available in the local universities, the African Virtual University, African countries and the Commonwealth of Open Learning.*

c)   *A technical task force for setting up an Open University for Kenya involving all stakeholders should be appointed by the government by 2007.*

d)   *Students opting for this mode of access to higher education should compete for government funding like any other students. Self-sponsored students who undertake national strategic programmes should be eligible for HELB loans (see chapter six on strategic programmes)*

2.2.7   Foreign Universities Involved in the Provision of Higher Education

2.2.7.1   The limited access to tertiary education as indicated above shows that there are many qualified Kenyans who are left out each year. They resort to seeking admission into foreign universities. It is estimated that over 5,000 Kenyans are admitted into overseas universities (Australia, Canada India, Malaysia, New Zealand, South Africa, UK, and USA) each year. This indicates that Kenyan parents are willing to pay for their children to have access to quality education and are therefore ready to part with enormous resources for this purpose. Their main reason for taking this route to higher education is limited opportunities in public universities and the very high grades required.

2.2.7.2   There are also some who seek admission to overseas universities because of the perception that they provide better education than what is provided locally. The cost, to the parents as well as the country, is enormous. For example, an annual fee of over Kshs. 1 million the student pays in the USA or UK could support about ten students on government sponsorship in Kenya. Others want to escape the long duration it takes to complete university education in Kenya because of constant closures. There are also those who attend these universities to access courses and programmes that are not available locally. Others may be attracted by the prospects of being employed upon completion of their studies. Kenyans are spending enormous financial resources and, in some instances, this may result in loss of valuable talents. The Board was not able to generate proper and reliable statistics on the number of Kenyans accessing higher education in foreign universities and was, also, unable to establish the number of those who returned after completion of their studies.

2.2.7.3   Foreign universities offer serious challenges to the country to expand opportunities, improve quality and diversify programmes. It also points towards the need for local universities to be competitive in terms of quality of their programmes and infrastructure, efficient and effective management, and be at the cutting edge of research and generation of knowledge. There is therefore need for local universities to be competitive, innovative, relevant and sensitive to global changes in the knowledge economy. The more education becomes a tradable commodity, the greater the urgency to offer competitive education that will attract the best and the brightest Kenyans to study at home. This also offers an opportunity to public universities to offer education to students from other countries. The latter is ably demonstrated by enrolments in Kenyan private universities.

Recommendations 2.9

    a)   *The Ministry of Education should spearhead the establishment of databases and compilation and systematic updating of statistics on students studying abroad.*

    b)   *The Ministry of Foreign Affairs should facilitate this process through education offices in the embassies.*

2.3. ENHANCING EQUITY IN HIGHER EDUCATION

2.3.1 Existing Inequalities

2.3.1.1   Measures taken to increase access to tertiary education as discussed above have hardly democratized or enhanced equity at this level. On the contrary, patterns of access to both public and private universities tend to reflect increasing regional, gender and socio-economic differentiation in the country. The social differentiation existing in the country is initially reflected in access to basic education. The existing inequalities in access to education at lower levels need critical attention as they tend to be reproduced or exacerbated as one goes up the education ladder. The organization and operation of the schooling system, coupled with the prevailing school cultures, often impact on students in a manner that tends to intensify social inequalities. As students move from one tier to the other, those from disadvantaged backgrounds are more likely to drop out. Consequently, societal inequalities are manifested more glaringly in institutions of higher learning.

2.3.1.2   It is important to point out how these inequalities manifest themselves in higher education institutions and make suggestions on possible interventions at that level. In doing so, it is important to point out that these problems cannot be resolved entirely through the education system. It is necessary to recognize that the root problem is the socio-economic inequalities in the society. Hence the need to give more attention to measures to alleviate poverty, distribution and sharing of national resources. This is the first line of attack on social and economic differentiation. While interventions to correct the prevailing situation in the

education system are necessary, there is need to recognize the limitations of the education system in bringing about equity in the society.

2.3.1.3   As one tries to analyze the various dimensions and magnitude of the problems, one encounters the complexities of coming up with accurate indicators to measure and the dynamics of its manifestation in higher education. Lack of accurate and systematic data, makes it difficult to make definitive observation on the prevailing trends. The prevailing gender, regional and social class inequalities in higher education are discussed in the following sections.

2.3.2 Gender Inequality in Education

2.3.2.1   Research findings indicate that girl-child education generates benefits not only at the personal and family level but is also important for social and national economic development. Educated women make a significant contribution to the labour market and increase national productivity. The education of girls has multiple impacts on the society as mothers, bringing up healthier families and their children have, especially girls, a greater probability of attaining higher levels of education. This makes educating women an important strategy not only for poverty alleviation but also tapping the talents and the potential they represent. Higher education in particular empowers women to participate in the social, political and economic lives of their communities and countries as leaders in business, professions and politics. Women's access to higher education is a prerequisite for gender equity and equality in society. In spite of the value of education, the trend in Kenya is that female students have been under represented at all tiers of education. This imbalance is particularly marked at the tertiary level where current female enrolment stands at an average of 35.3 per cent of the total enrolments as shown in Table 2.7(b) compared to a ratio of about forty-six per cent of secondary leavers in 2005.

2.3.2.2   The performance of girls in KCSE is a key factor to their access to university education and admission to the most coveted professional programmes. The performance of girls in KCSE in 2004 and 2005 indicates that the quality of their performance (see Table 2.7 (a)) was far below that of boys. In 2004, a total of 544 candidates scored an average of grade *A* in KSCE, of whom 34.5 per cent were girls while the proportion of girls achieving the grade was 29.3 per cent in 2005. This means that less number of girls will be able to compete for degree programmes that require high level of performance in KSCE such as medicine, law, commerce and engineering. Hence, they will not only be under represented in institutions of higher learning but more so in the professional programmes.

Table 2.7 (a): KCSE Candidates with Grade C+ and above

Year	Candidature	A	A-	B+	B	B-	C+
2004	Total Candidates Scoring Grade	544	3,025	6,660	10,764	15,859	21,369
	% of Female	**34.5**	**29.65**	**32.0**	**35.62**	**38.9**	**42.3**
2005	Total Candidates Scoring Grade	611	3,947	7,923	12,475	17,712	25,362
	% of Female	**29.29**	**28.63**	**29.72**	**34.81**	**39.06**	**42.6**

Source: Kenya National Examinations Council, 2005.

2.3.2.3   The Board has observed that higher education in Kenya is tending towards reproduction of inequalities in the society, mainly because of performance in lower levels.

2.3.2.4   An analysis of student enrolment in higher education reveals low female enrolment in science and mathematics-based programmes. Females from marginalized backgrounds in general are even more disadvantaged particularly in these critical fields. At post-graduate level, this pattern is not only reproduced but also magnified.

Table 2.7 (b): Total Enrolment in Public Universities by University and Gender
   2000/2001-2004/2005

University	Male	Female	Total	% Female
University	45860	21875	67735	32.29
Kenyatta	24400	16713	41113	40.65
Moi	20609	15943	36552	43.62
Egerton	30196	10487	40683	25.78
JKUAT	7174	3086	10260	30.08
Maseno	11838	7748	19586	39.56
Total	**140077**	**75852**	**215929**	**35.33**

Source: Commission for Higher Education, 2005

2.3.2.5   As regards female enrolment in public universities in the period 2000/2001 to 2004/2005, Moi University had the highest proportion (43.6 per cent) followed by Kenyatta (40.7), while Egerton had the lowest of 25.8 per cent followed by JKUAT with 30.1 per cent (Table 2.7 (b)) The universities with a strong leaning towards science and mathematics programmes (JKUAT and Egerton) have the lowest female enrolment while those with strong leaning towards humanities and education (Kenyatta) have the highest.

2.3.2.6   Currently, universities have started programmes through which primary school teachers and diploma holders from technical institutes and polytechnics are pursuing degrees. Gender imbalances at this level show that fewer women take up these opportunities especially from the polytechnics where there is marked imbalances as shown in Figure 2.4.

2.3.2.7   There are 20 public teacher training colleges that have the responsibility of training primary school teachers, and a few diploma level colleges that train secondary school teachers. Data on Table 2.8 indicate a fair gender balance in these colleges. Since the universities have become the main teacher training institutions for post-primary in the country, the advantage they have at this level will not be lost.

Figure 2.4: Student Enrolment in the National Polytechnics 2000-2004
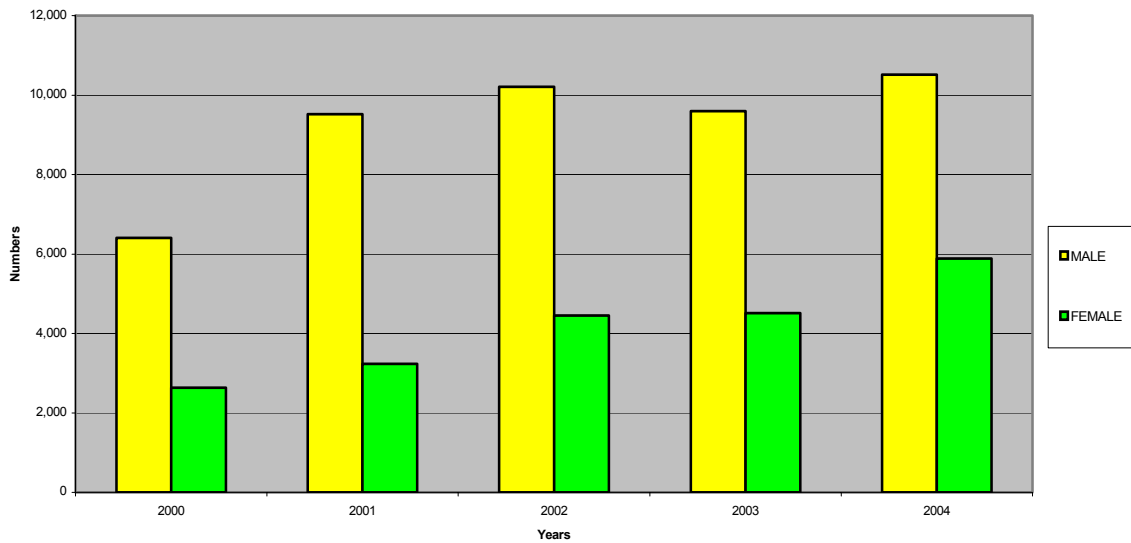
Source: Ministry of Education, Science and Technology 2005

Table 2.8: Student Enrolment in Teacher Training Colleges by Sex - 1998-2003

Year	Secondary			Primary			Special Education		
	Male	Female	% Female	Male	Female	% Female	Male	Female	% Female
1998	789	583	42.49	4,549	4,380	49.05	54	34	38.64
1999	771	666	46.35	3,194	3,484	52.17	71	55	43.65
2000	764	602	44.07	6,947	7,195	50.88	78	60	43.48
2001	1,113	912	45.04	7,573	6,743	47.10	75	63	45.65
2002	1,268	1,028	44.77	8,140	7,590	45.65	65	52	44.44
2003	1,435	1,087	43.10	9,323	9,693	50.97	54	65	54.62
Total	6140	4878	44.27	39,726	39,085	49.59	397	329	53.10

Source: Ministry of Education, Science and Technology, 2005

2.3.3 Gender Dimension in Private Universities

2.3.3.1 With respect to private universities there are no issues on female enrolments as they have attained gender parity. Between 2000/2001 to 2004/2005 female students' enrolments stood at fifty-four per cent in accredited universities and fifty-three per cent in chartered universities. A study of four accredited private universities by Wesonga, et al (2005), found that more women are enrolled in humanities and social sciences

than in the more marketable courses of science and technology, just as is the case with public universities as shown in Table 2.9 below.

Table 2.9: Percentage Enrolment in Private Universities by Gender and Area of Specialization 1999

University	Business Studies		Humanities & Social Sciences		Science and Technology	
	% Male	% Female	% Male	% Female	% Male	% Female
United States International University	51	49	32	68	Not offered	Not offered
Catholic University of Eastern Africa	48	52	37	63	61	39
Daystar University	48	52	30	70	Not offered	Not offered
University of Eastern Africa, Baraton	54	46	48	52	52	48

Source: Wesonga et al, *Private Provision of Higher Education in Kenya*, 2003.

2.3.3.2   A number of explanations are given for the high female enrolments in private universities. First, it is argued that since many of these universities have strong religious orientation, parents consider them to be more secure for their daughters than in public universities. Second, owing to the high fees charged in these universities, only the well to do families that are committed to women education tend to send their children there. Third, the courses offered are those most preferred by female students.

2.3.3.3   On the other hand, lower enrolment figures for women in the public universities have been blamed on: girls' lower participation and retention at primary and secondary levels; poorer performance by girls in KCSE; lack of a large constituency of women leadership to provide role models; social cultural values, beliefs and practices and gender socialization that has led to girls' low self-esteem.

2.3.3.4   The Board appreciates the introduction of affirmative action for girls by lowering of admission cut-off points for female students. This initiative has opened access to about 200 girls annually. However, much more needs

to be done if this imbalance has to be reduced. For instance, this can be done through the application of one point advantage in admission to specific programmes such as medicine, engineering, computer sciences etc.

Recommendations: 2.10

a) *The development and implementation of appropriate gender policies at national and at the ministry levels, and customized in each institution of higher education as well as at programme level. The policy should focus on gender mainstreaming and affirmative actions.*

b) *Higher education institutions should incorporate gender sensitization programmes in the orientation of both students and staff. This should however be a continuous and well-planned process and entail development of institutional gender policies.*

c) *Each institution of higher education should set and work out clear benchmarks for achieving gender parity targets at both undergraduates and postgraduate studies.*

d) *Establishment of targeted scholarships and bursaries by HELB, Ministry of Education, universities, private sector, for example the J.B. Wanjui Education Trust and other benefactors at both undergraduate and postgraduate levels to address gender disparities in higher education.*

e) *Establishment of a monitoring and evaluation unit to assess implementation of policies and actions intended to realize gender parity. The unit to produce annual progress reports on status and achievements realized towards gender parity. This report should be submitted to the CHE and the University Court.*

f) *Establishment of at least one girls' secondary school as a centre of excellence in each district, especially in arid and semi-arid areas.*

g) *Remedial/bridging courses in science and mathematics.*

h) *Make higher education institutions women friendly by developing and implementing policies necessary for dealing with sexual harassment*

i)   *Mainstream gender studies in the curriculum from 2007 so that all students are introduced to gender issues either in separate courses or integrated in existing courses.*

2.3.4 Regional Imbalances

2.3.4.1   Regional imbalances in access to educational opportunities in Kenya have strong historical, cultural, economic and political roots that have been the subject of various historical and educational studies. The patterns of colonial economic penetration and settlements, and the African response to the encounter; the evangelizing and educational activities of the Christian missionaries; and the policies of the colonial government towards the colonized, have left an indelible mark on the mosaic of uneven development of education in the country. Regions and communities that had concentrated missionary attention, government schools and active local authorities have had a definite headstart in provision of education. The centralization of education provision on attainment of political independence did not alter the initial advantages, but rather consolidated earlier gains by these regions through their access to economic and political power. The initial advantages were also supplemented and reinforced by Harambee movement initiatives undertaken in the first three decades of independence.

2.3.4.2   While in the past some groups' cultural attitudes and practices led to limited participation in formal education, low completion rates and poor educational achievements among pastoral communities and especially in arid and semi arid districts, the continued political neglect of these areas, the high level of poverty coupled with slow pace of economic development, ethnic and clan conflicts and occasional droughts and famine, have perpetuated low enrolments. These factors have accentuated regional and gender imbalances in access to and provision of basic education opportunities that is reflected in subsequent levels.

2.3.4.3   Additionally, the existing pockets of poverty in high potential districts and urban areas (slums and squatter settlements) have also severely

curtailed access to basic education of poor and orphaned children from these areas. The available opportunities to them are often of poor quality making it difficult to achieve high level performances needed to compete for education and training opportunities at the next level of education. Hence, students who come from poor households irrespective of the socio- economic ranking of their regions and districts tend to perform poorly in KCSE examinations, and are therefore unable to compete fairly for the limited opportunities in higher education.

2.3.4.4 The cumulative effects of policies of the colonial and post-colonial governments in Kenya are thus manifested in the limited number of students from North Eastern Province, Coast Province, some districts in the Rift Valley and Eastern provinces who have access to higher education institutions, and in particular professional programmes offered at public universities. The Table 2.10 and 2.11 below is intended to indicate how regional inequalities are reflected at university level, and specifically in the highly demanded professional degree programmes.

2.3.4.5 To illustrate the existing regional inequalities, as manifested in the admissions to selected and high demand courses, we have used data from the University of Nairobi and Moi University given in the tables below. In the two tables, it should be noted, that national schools in various provinces are not separated as such but are treated as regional catchment schools. We know this is not the case as they admit students from all over the country. National schools, it can be argued, provide a relatively open avenue for students coming from all regions and social backgrounds to access quality secondary education, and improve their chances to enter universities and prestigious professions. However, the ability to pay for high quality nursery, primary and secondary education has tended to exclude, mainly, low income groups. This brings into focus the complexity of how the dynamics of historical regional imbalances and current realities interplay to impact on access to secondary and tertiary education. For this reason, we must appreciate that children from poor

households are more likely to miss tertiary education or high valued programmes.

Table 2.10: Admission to Selected Programmes at University of Nairobi 2004/05 by Province

Programme	Coast	Central	Eastern	Nairobi	Rift Valley	Western	Nyanza	North Eastern	Total
Civil Eng.	4	8	4	8	15	11	12	0	62
Electrical	3	15	4	11	7	3	16	0	59
Mechanical	1	7	5	10	8	8	6	0	45
Dentistry	1	2	2	5	2	0	3	0	15
Pharmacy	2	5	4	10	2	7	7	0	37
Medicine	8	29	6	56	14	8	14	0	135
Law	3	20	10	33	20	2	12	0	100
Actuarial	0	3	8	8	2	2	8	0	31
Computer	1	13	2	8	2	2	3	0	31
B.Com	4	77	33	73	46	10	13	0	256
Total	27	179	78	222	118	53	94	0	771
Per centage	**3.5**	**23.2**	**10**	**28.8**	**15.3**	**6.9**	**12.2**	**0**	**99.9**

Source: JAB Admissions, 2004/2005

Table 2.11:   Admission to Selected Programmes at Moi University (2004/05) by Province

Programme	Coast	Central	Eastern	Nairobi	Rift Valley	Western	Nyanza	North Eastern	Total
B.Sc (Comp.Sc)	0	6	4	2	7	0	2	0	21
B.Tech(Electric)	0	7	2	2	4	1	6	0	22
B.Sc	2	26	17	13	38	15	36	0	147
B.Med.	4	13	5	11	3	2	2	0	40
B.Law	0	4	14	7	9	3	7	0	44
B.Bus.Mgt	1	8	11	17	10	0	4	1	52
B.Tech(civil)	2	5	5	7	8	2	2	1	32
B.Tech(Chem)	0	5	2	5	10	4	4	0	30
B.Sc(Hortic.)	3	7	9	1	3	0	2	0	25
Total	12	81	69	65	92	27	65	2	413
Per centage	**2.9**	**19.6**	**16.7**	**15.7**	**22.3**	**6.5**	**15.7**	**0.5**	**99.9**

Source: JAB Admissions, 2004/2005

2.3.5 Social Class in Higher Education

2.3.5.1   While educational inequalities tend to be expressed and understood in terms of ethnicity and regions, there is a strong emerging perception that access to higher education in Kenya benefits the rich more than the poor. This is manifested through the way in which the increasing competition for access to university and tertiary education is mediated. The Board

was informed that the ability to pay for high quality education in nursery and primary academies is giving students from these schools a competitive edge for entry into high quality public secondary schools and eventually entry into higher education institutions. This is tending to exclude almost completely students from low income groups and poor areas from high value professionals. It was observed that the existing social differentiation and stratification in the society is reflected in the educational system, thereby reproducing and reinforcing societal inequalities. The tendency is thus towards deepening and entrenching historical, regional, ethnic and social class imbalances in access to education at all levels. It has been argued that in the past when the government fully supported 'A' level and the university education, the system was perceived to be much fairer, and relatively open to students coming from rural areas irrespective of their social backgrounds. This may explain to a large extent the predominantly peasant backgrounds of the early elites in Kenya. Today, the ability to pay for high quality education at lower levels and in some instances private tuition excludes low income groups from opportunities to pursue higher education, and has become a process of social reproduction. For these reasons, the quarter system and affirmative action undertaken during the selection into form one intake to national schools is a positive intervention for inclusion of children from underprivileged areas.

2.3.5.2   The Board has learnt that entry into professional degree programmers has become the domain for a few well-resourced secondary schools which are located in Nairobi and the more developed regions of the country. It is also a well-known fact that national schools were among the best performers in KCSE irrespective of their location in the country. The Board was informed that an increasing number of well performing students come from middle income families and urban households where one or both parents have a good educational background. These households usually give their children a headstart in private nursery schools and private academies leading them eventually to join quality government supported secondary schools that improve considerably their

chances of getting good grades leading to entry to public universities and government sponsorship. Concrete, systematic and up-to-date data to back up these observations are not readily available to the Board and past research studies on educational inequalities do not provide useful data that can be extrapolated to the current situation. However, some of the admission data that we have analyzed tend to point strongly to these tendencies. A preliminary analysis of data from a recent cohort indicates that a high proportion of students being admitted to professional and highly competitive degree programmes were drawn from about twenty top secondary schools in the country, forty per cent of them being within or around Nairobi metropolis. The Board views that the dynamics of these processes need to be better understood and policies instituted to counter their negative impact on equity.

2.3.5.3   The emerging inequality in access to university education is reinforced by the current self-sponsored programmes which cater for students who can afford to pay the prevailing market fees charged by the universities. The presentations made to the Board expressed serious concerns regarding these trends in access and provision of higher education.

2.3.5.4   The challenge therefore, is to make higher education accessible to all irrespective of region, ethnicity, social class, religion, age or gender. However, due to inadequate opportunities for government sponsorship in public and private institutions, many Kenyans are forced to shoulder the responsibility of financing higher education of their children, a burden that is proving to be too heavy for most households. Kenyans living in poverty are the most likely to be excluded. It is, however, those who are excluded on account of their inability to finance higher education that pose the most serious challenge to government policies and institutional arrangements intended to cater for them (see chapter seven on resource mobilization). The lack of mechanisms to address this problem adequately could perpetuate not only socio-economic disparities but also lead to animosity, conflicts and violence.

Recommendations 2.11

a) *Policy oriented research be undertaken to establish "who gets access to higher education in Kenya". This kind of research should be undertaken every five years.*

b) *The Board also recommends that each institution of higher learning should be required, by CHE and HELB, to keep accurate and appropriate data on each student.*

c) *There should be affirmative action for regions and social groups which are under-represented in higher education enrolment. In particular, ASAL (a concept that needs to be constantly redefined) regions should be given special attention by providing remedial programmes to students from these areas who score close to cut-off point needed for entry to higher learning institutions.*

d) *The establishment of institutional mechanisms and arrangements to provide resources to bright but needy students to access higher education. HELB should create structures and processes to identify these students and allocate full scholarships that will cater for their tuition and maintenance needs. These structures and processes should be transparent and accountable to avoid being subverted by the powerful and privileged.*

2.3.6 Students with Special Needs

2.3.6.1 Students with special needs are disadvantaged right from the primary school level where enrolments are low as many parents do not send such children to school. Even after they enrol, the participation and retention rates are low due to lack of support in terms of fees, medical care and user friendly learning environments and appropriate curriculum. Furthermore, special needs students' access to secondary schools is extremely low as demonstrated by Table 2.12 below. As a result, the opportunity for these students to proceed for higher education is extremely limited.

Table 2.12:   Enrolment in Special Secondary School, 2006

S/no.	Special Secondary Schools	Boys	Girls	Total
1.	Kuja School for the Deaf	66	20	86
2.	St. Angela's Mumias School for the Deaf	-	167	167
3.	Rev. Charles Muhoro Secondary School	42	41	83
4.	Mombasa Secondary School for Physically Disabled	119	117	236
5.	Joyland Secondary School	48	58	106
6.	Joytown Secondary Schools	63	73	136
7.	Thika School for the Visually Impaired	101	103	204
	Total	**439**	**579**	**1018**

Source: Ministry of Education, 2006

2.3.6.2   The planning of higher education facilities has not in many instances taken into consideration the needs of persons with disabilities and other challenges. Lack of these considerations is tantamount to exclusion of these persons from accessing opportunities provided by higher education institutions. This situation results from past attitudes towards people with disabilities as demonstrated by the way buildings, pathways, classrooms, laboratories, etc are constructed. The methods of teaching and available equipment disregard and discourage people with disabilities who wish to pursue higher education. Some of the needs of special students have been highlighted in the chapter on student welfare.

Recommendations 2.12

> a)   *Higher education institutions should develop deliberate policy framework to support students with special needs, paying serious attention to transformation of prevailing attitudes among staff and fellow students.*
>
> b)   *In situations where appropriate facilities are not available, institutions concerned should invest in adaptation of buildings, classrooms, laboratories, libraries, and services. Future development of institutions of higher learning should take these requirements into consideration in planning and implementation.*
>
> c)   *Special scholarships and bursaries for special students should be provided at levels that takes into consideration their specific needs.*

2.4   POSTGRADUATE TRAINING PROGRAMMES

2.4.1   While expansion of undergraduate opportunities is receiving increasing attention, public universities are not allocating adequate resources to the development of postgraduate programmes. Currently, graduate enrolment in public universities is less than ten per cent of the students' population, a situation that is deemed to be unacceptable in view of the country's current and future needs. Table 2.13 below indicates the enrolment in graduate programmes at various levels in the public universities. Furthermore, the Board notes that there is no national policy on postgraduate training and as such there are no guidelines on budgeting, students' loans, admissions and priorities on programmes and research.

Recommendation 2.13

The government should formulate a national policy on postgraduate education and training that is informed by inputs from stakeholders (Ministry of Education, universities, research institutions and networks and the private sector).

2.4.2   Enrolments in Masters and Ph.D. programmes have not only remained relatively low but the processing of graduates from the time of registration to graduation takes too long, and the quality of preparation and supervision of graduate programmes on the whole have been weak. Hence, the rate and numbers being produced are inadequate to meet the national needs of replacing aging faculty, expanding higher education, and the professional cadres required in government, private sector, international agencies and NGO community, leave alone mitigating the effects of the brain drain.

Table 2.13:   Postgraduate Enrolments in Public Universities, 1999 – 2004

University of Nairobi	1999	2000	2001	2002	2003	2004
2nd Degree(masters)	278	265	256	414	694	709
PhD.	21	20	26	22	32	35
Total	**299**	**285**	**282**	**436**	**726**	**744**
Kenyatta University	1999	2000	2001	2002	2003	2004
2nd Degree(masters	75	103	76	177	205	2987
PhD.	11	9	10	21	30	82
Total	**86**	**112**	**86**	**198**	**235**	**3069**
Moi University	1999	2000	2001	2002	2003	2004
2nd Degree(masters)	78	62	81	58	61	182
PhD.	5	10	6	7	9	10
Total	**83**	**72**	**87**	**65**	**70**	**192**
Egerton University	1999	2000	2001	2002	2003	2004
2nd Degree(masters						167
PhD.						11
Total		**1829**	**1717**	**1781**	**2279**	**178**
JKUAT University	1999	2000	2001	2002	2003	2004
2nd Degree(masters)	21	32	5	37	29	48
PhD.	4	3	3	7	7	4
Total	**25**	**35**	**8**	**44**	**36**	**52**
Maseno University	1999	2000	2001	2002	2003	2004
2nd Degree(masters)			2	8	Nil	34
PhD.			8	6	Nil	4
Total			**10**	**14**		**38**

Source: Commission for Higher Education, 2004

2.4.3   The Board was informed of some practices that discourage students from pursuing postgraduate studies and thus impacting negatively on access to higher education at this level. For example, some academic supervisors take too long to review students' work and give feedback. This is what leads to students taking too long to graduate.

2.4.4   The Board was also informed that many professors preferred carrying out research and consultancy with international agencies rather than supervising their postgraduate students. This diminishes their critical role

as supervisors, mentors, intellectual role models and trainers in writing and research. The kind of treatment outlined above has led to quite a good number of talented postgraduate students leaving the country to study abroad.

2.4.5   The fact that our universities have continued to produce many masters and PhDs is an indication that there are still dedicated and committed scholars, lecturers and intellectuals who, at great cost to themselves, continue to supervise, mentor, inspire and produce graduate students. This is also a credit to international funding agencies, regional bodies and networks such as the Council for Development Social Science Research in Africa (CODESRIA) and African Economic Research Consortium (AERC) which have continued to support training and research at this level.

2.4.6   The government needs to put up substantial investments for postgraduate training to meet high demand for faculty, new programmes and cutting edge research.

2.4.7   The enrolment patterns in graduate programmes should be viewed in light of critical trends in high level human resource needs in the country. First, an analysis of the age structure of the academics in public universities indicates that most of the professors are aged above fifty years which means most of them will reach retirement age in the next fifteen years. Hence, the challenge is to train for succession and replacement due to other reasons such as internal and external brain drain as well as deaths resulting from natural attrition, including HIV/AIDS, and other causes.   Second, as higher education sector expands, targeted and systematic staff development programmes are necessary to meet the increasing demand and to avoid current dependence on a few who are circulating amongst universities (academic nomads).   Third, there is an urgent need to address the current glaring gender imbalances in higher education. On the other hand, the targeted and increased number of scholarships for women in postgraduate training

programmes is required. Fourth, for Kenya to be competitive in the global and regional knowledge economy, persons with postgraduate training in strategic areas such as ICT, financial management, mining, engineering, biotechnology, marine sciences, research, etc are essential and need to be trained. This is an area where talented students from the region can enrich research and development in the country.

2.4.8   Increased access to postgraduate training is necessary to build a reservoir of high calibre personnel that are needed in research and learning institutions, policy-making bodies, and in the development of knowledge economy. The limited postgraduate training reduces the country's ability to retain and attract talented graduate students. Strong and vibrant graduate programmes are critical in any society, in breaking intellectual and knowledge dependency and creating necessary symbols of intellectual independence, human dignity and national confidence. A case in point is the Noble Peace Laureate, Professor Wangari Maathai, and outstanding scholars and writers such as Professors Ali Mazrui, Calestous Juma and Ngugi wa Thiong'o.

Recommendations: 2.14

a)   *The Board recommends that a critical and comprehensive study be undertaken on graduate programmes in the country in light of current and projected needs, and concerted efforts made to address the shortcomings and necessary investments made by the government, private sector and funding for this purpose secured from development partners.*

b)   *The shortcomings identified may be addressed by establishing or building on existing regional graduate programmes, which are managed within or outside the universities, such as the African Economic Research Consortium (AERC) and collaborative programmes with foreign universities.*

c)   *Universities in Kenya must reclaim the initiatives to undertake graduate training that are currently being taught outside the universities by building the necessary infrastructure (ICT, laboratories, libraries, etc) and facilities and provide incentives to students and faculty. A few universities in the country should strive to become centres of excellence in postgraduate training in their respective areas of specialization.*

d)   *Local universities and research institutes should forge linkages and partnerships amongst highly trained Kenyan professors and foreign researchers and scientists working abroad for them to participate in postgraduate training and research in the country. A fund to facilitate this kind of exchange and visiting programmes for Kenyans working in foreign institutions should be established in each university.*

e)   *A portion of research funds should be allocated for postdoctoral training critical for faculty succession and national development is essential for the advancement of knowledge, research and acquisition of specialized skills. These funds should be accessed competitively.*

f)   *Establishment of a national databank on all aspects of tertiary education should include keeping accurate and up-to-date inventory of postgraduate training and research.*

g)   *The government should increase its funding for postgraduate training and set up a fund for high level manpower training in strategic areas both for the university and the economy.*

2.5 STRENGTHENING KENYA AS A REGIONAL EDUCATION PROVIDER

2.5.1   Since the colonial period, the development of higher education in East Africa has had regional and international character in terms of student body, faculty and research programmes. When Makerere College in Uganda was established in 1926, it opened its doors to students from Eastern and Central African territories. The staff was foreign, mainly British, and the degrees awarded were those of the University of London. The end of colonial rule in the sixties witnessed the establishment of the University of East Africa, with its three constituent colleges in Dar es

Salaam, Kampala and Nairobi. The international character associated with the university education remained intact, as the student body was predominantly East African, while staff became even more diversified in terms of their nationalities. This tradition continued even with the breakup of the University of East Africa in 1970 and the establishment of national universities in Kenya, Tanzania and Uganda.

2.5.2   The public universities in Kenya have to some extent lost some of their strong regional and international makeup in terms of proportion of foreign students enrolled, international staff employed and overall attraction. Since the eighties, the number of foreign students has declined and the teaching staff has become predominantly Kenyan. While some elements of this development may be viewed positively, one cannot fail to underscore that whereas a university should be national in its attachments, organization and focus, it should maintain strong international orientation. This would enrich scholarship and diversity, invigorate intellectual inquiry and research and foster international understanding.

2.5.3   The Board notes that Kenyan universities need to reclaim and strengthen their regional and international character in terms of their enrolment, faculty and research programmes. This will enrich the quality and the diversity of the students and faculty and have positive impact on learning, teaching and research programmes. This objective may be hard to realize in view of the unmet demands for higher education in the country. Despite this, the country needs to recognize the long-term benefits that accrue through a deliberate and well planned strategy for its implementation to ensure international engagement.

2.5.4   As indicated elsewhere Kenya should become the hub of university education in the region. To achieve this, some mobility of students and staff is necessary. In this regard, recognition of qualifications in the region through the Inter – University Council for East Africa (IUCEA) needs to be strengthened. Further, the recognition of education as a marketable

service by the World Trade Organization (WTO) underscores the urgency for Kenya to position itself as a competitive and preferred provider of higher education within Eastern and Central African region and beyond.

2.5.5   By its very nature, education is interactive and dialogical and therefore enriching. In a regional education market, it is necessary that a healthy balance in the exchange of knowledge, skills and human resources be maintained. Thus, Kenya needs not only to "export" some students and faculty (brain drain), but also to "import" much of these resources (brain gain) if it is to remain globally competitive. However, as this exchange takes place, it is vital to maintain a solid foundation of knowledge and skills that is truly homegrown and pivotal (brain circulation).

Recommendation: 2.15
   a)   *The country should target to enrol international students in all institutions of higher learning. The target should be between ten to fifteen per cent of the total enrolment. To realize this objective, we recommend that the ministries of education and foreign affairs market Kenya as an education destination for students emanating from the region.*
   b)   *The efforts of the East Africa Inter-university Council to exchange students in the three countries should be accelerated and in particular postgraduate training at faculty and department levels.*
   c)   *All universities should market themselves through trade fairs, and websites, both locally and internationally.*
   d)   *Public universities in Kenya should be encouraged to open campuses in the neighbouring countries.*
   e)   *Kenya should formulate policies to mobilize resources and identify strategic areas for education and training of professionals from neighbouring countries (Southern Sudan, Somalia and Democratic Republic of Congo) to enhance reconstruction, peace building and security.*

2.6   CONCLUSION

2.6.1   As demand for higher education escalates annually between thirty to fifty per cent of secondary school leavers, pressure will continue to mount for expansion of tertiary education. This will call for multiple and innovative approaches, and partnerships to deal with the challenge. Use of ICT in expanding access to higher education will become a feature of Kenyan education. Hence, a comprehensive approach to the development of sub-sector is needed, with participation of the multiplicity of the players in the sub-sector. The role of the state should nevertheless remain dominant, but more focused on policy, coordination, setting standards and setting future direction. It will also be required to undertake critical investments in strategic and priority areas of national development.

2.6.2   Inequalities that are observable at this level will persist and in some cases intensify. Nevertheless, they will have to be addressed systematically. However, while action at this level is necessary, critical and urgent interventions need to be taken at the basic and secondary education levels.

2.6.3   Access to postgraduate education and training is needed to cater not only for the human resources needed for expansion of higher education and other sectors of the economy, but also to meet the challenges of development of scientific and technological research capability, generation of knowledge and its application in the society. As the country faces competition and the complexities of expanding opportunities for higher education for Kenyans, it will also have to take into consideration regional and international engagements and obligations.

CHAPTER THREE

QUALITY ASSURANCE IN THE UNIVERSITY SECTOR

3.1 INTRODUCTION

3.1.1 Quality assurance is the rigorous process used to ensure that institutional systems and strategies for meeting agreed quality standards and requirements are operational, effective, and credible. Quality defines the relationship between idealized expectations and actual outcomes. The critical components which determine quality in a university include the quality of students admitted, staff, infrastructure, governance and management, funding levels and outputs including research, graduates and community service.

3.1.2 The status of quality assurance in an institution is established through a series of audit processes which enquire into the implantation of institution's policies, strategies, programmes, procedures and resource utilization for quality assurance purposes. In the case of universities, the enquiry seeks to assess how specified quality parameters in student admissions, teaching, learning, and research, service to society, culture, and values are complied with, and whether the university has the management capacity to implement and achieve its quality targets. Quality assessment and measurements consist of a series of programmed actions targeting determination of inputs, infrastructure, systems, processes and outputs in the institution. The assessment is benchmarked against explicit standards and expectations.

3.1.3 The critical inputs necessary for quality assurance are students, staff and infrastructure. However, the quality of the inputs is often governed by the level of financials resources available and the number and quality of students admitted into each academic programme in the university, and the establishment and maintenance of the credibility of admission process are all critical considerations. The competitiveness of academic

programmes is established using the number of total applicants against actual students admitted into the programme. The second step is to ensure that quality staff are recruited, retained and effectively utilized to safeguard and maintain the highest possible standards of teaching, research and mentoring. Third, resources mobilization and especially, the sustainability of financial resources, coupled with the level of efficiency, effectiveness and accountability in their utilization need to be measured using agreed benchmarks and best practices.

3.1.4   University curricula should address road national goals and specific developmental challenges effectively and clearly. As such, they should be relevant, up-to-date, and internationally accreditable. The contents of the curricula and their delivery should be up to the established and accepted standards. The numbers, quality, training levels, and performance of academic and other staff form an essential part of the academic infrastructure. The learning, teaching, research and examination processes are part of the quality assurance system. The criteria for staff recruitment, training, promotion and appraisals, as well as delivery of student and staff welfare services and disciplinary processes constitute reliable base-lines for the determination of quality. Critical physical infrastructure includes lecture theatres, offices, laboratories, workshops and libraries as well as ICT. The level of ICT investment and other support services such as water, power, roads and sewage are important components of physical infrastructure. The number of learner support programmes such as resource centres, halls, extra-curricula and career centres is also a useful measure of the quality of infrastructure.

3.1.5   Institutional vision and mission, culture, traditions, normative values, and attitudes are reliable determinants of quality, although they are not easy to measure. However, these are critical because the institutional image derived from students and staff conduct shape public perceptions of quality of the university.

3.1.6   The final cluster of quality indicators comprises of the institutional outputs. These include the quality of the graduates as determined by graduate employability and potential for further training and the values system they uphold. The number and quality of academic papers published, books, consultancies, patents and innovations by the institution's staff is a reflection of the university's productivity.

3.1.7   Internal quality assurance mechanisms indicated above form a basis for external independent assessment. This is usually done by an external body in co-operation the institution being assessed. The indicators and parameters utilized are agreed upon between the institution and external assessors. This report has recommended that CHE becomes the external quality assurance authority in Kenya. The Board recognizes that international comparisons and ranking are also mechanisms for quality assurance and that to remain globally competitive; our institutions must participate in the ranking processes.

3.1.8   In addition to the above it should be recognized that the quality of higher education is intricately intertwined with the quality of basic education in the country where university students come from.

3.2   THE IMPACT OF INCREASED DEMAND ON QUALITY IN HIGHER EDUCATION

3.2.1   The demand for university education in Kenya exceeds the capacity of local universities to accommodate all the qualified local candidates. Public universities in Kenya are usually pressurized to admit more students than they can accommodate. The past admission of more students beyond the inelastic carrying capacity of the universities, and without expanding the universities' resource base, has been perceived by many stakeholders to have led to a significant decline in the quality of university education in Kenya. The underlying and cross-cutting challenge facing universities in Kenya is, therefore, to balance the demand with the imperatives of maintaining high standards of education.

3.2.2   The most decisive factor in determining how effectively universities achieve their objectives is the quality of academic programmes and management systems. The overall quality of the university is reflected in the quality of the curriculum, teaching and learning, research, students, staffing, infrastructure, and institutional culture and values. Public universities in Kenya are expected to offer quality and relevant academic programmes. Such programmes would make universities assume leadership in providing solutions to problems of society by generating intellectual products based on sound research outcomes and ideas. Public universities and universities in general are expected to utilize management systems that are effective, efficient, and credible and based on good practices. Universities should, therefore, maintain good public images and serve as positive role models for other institutions of higher learning in the region.

3.3   CHALLENGES OF QUALITY IN KENYAN UNIVERSITIES

3.3.1   Several academic programmes in the public universities do not attract critical number of students and are therefore not economical to run (see Table 3.6). Other programmes are duplicated across several universities without taking into account the resources available in the respective universities. This duplication of academic programmes without expansion of the resource base poses a serious challenge to the quality of education in Kenyan universities.

3.3.2   The constraints to the provision of academic programmes and services of high quality arise from the universities' inability to mobilize sufficient financial and human resources. Access to sufficient and appropriate academic infrastructure, including tuition facilities and suitable equipment, are, largely, limited by the prevailing and unrealistic government capitation, procurement policies and weaknesses and unethical practices in management. The basis upon which the government determines the quantum of financial allocation to the universities (the unit cost) is far below the true value. Furthermore, there is no suitable institutional framework for value-adding academic collaborations between Kenyan

universities. For example, a framework for accumulation or transfer of academic credits among Kenya's public or private universities and other tertiary institutions does not exist. This limits opportunities to judge quality on the basis of comparison.

3.3.3   Another set of challenges confronting higher education in Kenya includes systemic imbalances and unrealistic expectations. There exist imbalances between the number of science-based and arts-based students, between regional and gender enrolment levels within the student populations, and between skill demands and skill supply. The public expects university scholars to undertake practical research and apply their skills and knowledge in addressing real life problems. Unfortunately, this public expectation is not met due to limited research funding and underdeveloped mechanisms for the application and utilization of research findings.

3.3.4   Finally, public universities have an unfortunate image problem to contend with. The poor image arises from the frequent unreasonable conduct and behaviour of some students and staff in public universities. However, the Board noted some recent signs of change, but more is required in this area. The public extrapolates the few incidences of antisocial behaviour to encompass the whole university community, and goes on to interpret the behaviour as an indicator of low quality in the universities' academic programmes.

3.3.5   Public universities in Kenya have responded to the challenges they face by adopting innovative and enlightened ways of raising funds while expanding access through the introduction of self-sponsored students' programmes. Some universities have opened campuses in local tertiary institutions while others have mounted school-based programmes for teachers. A few universities have established autonomous companies to manage income-generating activities and initiatives. Universities have also opened access by adopting new academic delivery modes through open and distance learning techniques. Some of these responses have,

however, generated other secondary challenges, such as deflecting the focus of the universities from their true and core mission and functions; and how to ensure quality in the regime of alternative modes of delivering academic programmes.

3.3.6   Public universities in Kenya are endowed with unique strengths which they can exploit to overcome the challenges and crises they face. The potential of the critical mass of prominent and influential alumni serving in the public and private sectors has not been exploited in fundraising, while the vast portfolios of valuable fixed assets, physical resources and land which the universities own remain locked up.

3.3.7   Public universities, generally, have highly qualified and competent lecturers who are specialists in their professions. Goodwill from government is substantial, with assured commitment for ongoing and future support from this source. Public universities also possess relatively high quality professional programmes (medicine, engineering, business, education, dentistry, etc), produce competitive graduates and often report seminal research findings. The major strength of the universities arises from Kenyans' undying commitment to continue investing in the future of their children through university education; and the presence of an insatiable pool of potential students who are highly qualified and motivated.

3.4   QUALITY ASSURANCE IN THE HIGHER EDUCATION SECTOR IN KENYA

3.4.1   The necessary and sufficient factor of production in the modern economy is knowledge. A direct correlation therefore exists between the level of investment and enrolments in higher education institutions and the level of economic development in any given country. Empirical and statistical evidence suggests that countries with high standards of university education and research output are more socio-economically advanced since their human productivity tends to be high. A viable strategy for

wealth creation and poverty alleviation is therefore, to open up access to, and upgrade the quality of university education.

3.4.2   Higher education players and stakeholders who made representations to the review Board raised concerns on the quality of teaching, learning, research, staff conduct, staff commitment, university leadership, graduate unemployment, government commitment, and accountability of universities to the public. There was general concern over the relative quality of academic programmes in local universities *vis a vis* other international or local private universities. The quality of programmes was perceived to be low due to the absence of tutorials, inadequate physical facilities, teaching materials and equipment. Students complained of loss of learning time due to shortening of semesters by the public universities, and absenteeism by the some lecturers. There is also inadequate provision for internships and industrial attachments.

3.4.3   Some stakeholders expressed a sense of doubt concerning the relevance of the skills being imparted to students in the local universities with respect to the regional and international needs of the 21st century. The commitment of local scholars to quality, up-to-date teaching and to research which addresses practical needs of the society was not highly rated. Some stakeholders stated that university teaching emphasized theory rather than practical and applied aspects of knowledge. Lack of academic professionalism among some lecturers, reflected by the quality of teaching, absenteeism, and conduct of examinations was raised by students. Students also indicated significant delays in completion of post-graduate degrees. Some supervisors were accused of delaying processing of theses for fear that the newly qualified Ph.D. graduates would compete with them for jobs. Some stakeholders stated that university teaching over-emphasized science-based programmes at the expense of equally important arts and humanities programmes.

3.4.4   Kenya's current policy on higher education as articulated in the *Sessional Paper No. 1 of 2005* recognizes the pivotal role which universities play in

knowledge generation, in human resource development and in the national economy. A veritable framework for implementing the policies stated in this sessional paper must be based on sound quality assurance mechanisms for guaranteeing high standards of university education.

3.4.5   Appropriate policies and functioning quality assurance schemes are essential conditions for responding effectively to any doubts and concerns about the quality and performance of the higher education sector in Kenya. Such policies should consist of devising mechanisms for constructing a highly visible and palpable role for higher education in socio-economic development of Kenya through research and knowledge generation. Suitable quality assurance systems should be established and enhanced at the conception, design and implementation stages of academic programmes. Competitive and demand-driven academic programmes should be crafted, and their quality guaranteed by maintaining verifiable high standards of teaching, learning, research and service. The quality assurance mechanisms should be buttressed by attracting talented students, including international students.

3.4.6   The Kenya Education Sector Support Programme 2005 – 2010 (KESSP) launched in July 2005 reveals that the government will expand public universities, and ensure that the proportion of all students studying science-related courses in public universities is increased by fifty per cent. This is in recognition of the critical role which university science education plays in national development. The government obviously recognizes the imperative of applying higher education and scientific knowledge in wealth creation for poverty alleviation. A policy framework for a sustained university system which offers competitive, relevant and demand-driven academic programmes will therefore be developed during the KESSP programme period.

3.4.7   The university academic programmes will be derived from national goals and priorities, be technologically-informed, research-integrated and globally marketable. They must also address the above-noted skills

mismatch which exists between industry needs and what graduates possess. The government has also undertaken to promote rationalization of academic programmes among universities in order to create centres of excellence, and allow each university to assume some measure of comparative advantage in specific programme areas. The long-term policy will be to provide a framework for a 'sustainable, competitive and autonomous national university system', while the immediate goal will be to reduce the prevailing wasteful duplication in some courses.

3.4.8   The KESSP lays down the strategy of implementing the policies on education, training and research articulated in *Sessional Paper No 1 of 2005.* The expected outputs from KESSP will be enhanced quality and relevance of university education. The outputs will be measured *inter alia* by the relative investment per student, academic staff credentials; student performance; number and magnitude of university-industry linkages; research output; level of incubator activities in the universities; the relevance of research informing universities academic programmes; and the level of obsolescence of equipment and facilities in universities.

3.4.9   Future investments in higher education in Kenya should therefore focus on selected strategic areas, and be informed by the need to expand access and equity, enhance quality and relevance, and improve effectiveness and efficiency in governance of universities. The key areas of focus will include designing, monitoring and evaluating of curriculum, enhancing research development, establishing centres of excellence in specialized programmes, recruitment, training and retention of qualified staff, upgrading and maintenance of equipment and facilities.

3.4.10   Attainment of the enhanced quality environment outlined in this chapter will reduce the number of local students seeking to study off-shore and local scholars being attracted to practise outside the country. Furthermore, fee-paying international students will be attracted into Kenya's local universities, while the regional and global marketability of graduates from Kenyan universities will increase.

3.5 QUALITY ASSURANCE OF UNIVERSITY INPUTS

3.5.1 Student Admissions

3.5.1.1   Quality as a process starts from the admission of students and up to their graduation. The admission of candidates into public universities in Kenya is based on their qualitative performance in the KCSE results. The Board has noted that there is an emerging trend to open access to higher education through assessment of learning and competencies gained through non-formal experiences. This is a positive trend that will need the development of diversified admission criteria. The process developed should be fair, transparent and recognize credits and learning gained elsewhere.

3.5.1.2   Currently, some of the students are admitted to unpopular programmes which they consider neither competitive nor strategic, and hence a drain on public resources.   Basically, JAB allocates students to these programmes in order to utilize the available facilities and keep the permanent and full-time lecturers attached to the programmes gainfully occupied. Such courses are poorly subscribed since they are not demand-driven. Retention of unpopular programmes in the roll of academic programmes available in public universities should be re-examined. .

3.5.1.3   The policy of channeling qualified students to unpopular courses can lead to lowering of standards, since the universities do not need to compete for students on the basis of the quality of their programmes. In such cases universities are not compelled to design and implement quality assurance systems and enhancement schemes. There is, therefore, no incentive for the universities to enhance quality in order to attract talented students, since such programmes are guaranteed government-supported students whether their programmes are fully-subscribed or not.   The rigorous, though inflexible admission process into public universities often directs a large number of candidates into academic programmes which they did not choose. Admission procedures also peg admission levels of

government-supported students to bed capacity available in the universities, instead of pegging them on available academic facilities.

Recommendation 3.1

To the extent possible, students should be admitted to the degree programmes of their choice subject to the availability of teaching resources.

3.5.1.4   The self-sponsored programmes (SSP) opened alternative paths of access to higher education, and enabled public universities to raise critical funds by doing what they know best. The programmes were established at the University of Nairobi in 1997/8, while the other public universities established self-sponsored students' programmes soon after 1998. These programmes have been managed as distinct entities, separate from the already established regular programmes for students who are sponsored by the government.

3.5.1.5   The public expressed concern on the quality and fairness in managing SSP, especially during the stages of admissions, teaching and processing of examinations. Expansion of the self-sponsored programmes has been in some cases been undertaken with zeal because of the lure to generate additional funds. Some university staff members were concerned about the manner of spending and accounting for the funds generated in the SSP. There is a potential threat of these programmes excluding poor students from accessing university through this alternative route. The Board has identified the need for each university to formulate ways and means of supporting students from poor families in order to avoid their marginalization.

3.5.1.6   Unchecked expansion has not taken the programmes' impact on the academic standards in the universities into account. For example, the number of lecturers, lecture theatres, laboratories and libraries has not increased to be commensurate with the additional number of students. Consequently, some self-sponsored degree programmes are perceived

to have outstretched available facilities thus threatening quality. Also, funds accruing from the programmes have in some cases been perceived to be utilized without adequate accountability.

3.5.1.7   The perceived less rigorous admission criteria and preferential treatment of the self-sponsored students may compromise quality, thus leading to imminent threats to higher education in Kenya. Students admitted to the self-sponsored programmes are mainly selected from the schedule of candidates that remains after JAB selections. Furthermore, some students who have been selected through JAB and can afford to pay the required fees may register in their chosen academic programmes one full year ahead of the other JAB candidates. These programmes have, therefore, distorted and skewed the principle of equity and fairness, since students from well-to-do households can access competitive programmes for which they may not have qualified under JAB criteria. These students also have a headstart in embarking on their degree programmes earlier than their age-mates. These problems will persist as long as the time lag between leaving secondary school and entering university remains two years or more (see Chapter Four).

Recommendation 3.2

   a)   *Public universities should declare to the public their total admission capacities on the basis of academic facilities.*

   b)   *The universities should not admit more students than those who can be effectively supported by the human and physical infrastructure in order not to violate the agreed staff to student ratios or distort the programme-based Full Time Student Equivalents (FTSE).*

Recommendation 3.3

   Government-supported and self-supported students should be amalgamated for admission and teaching purposes in order to maximize on the utilization of available capacity and resources in the universities.

Recommendation 3.4

> *The income generated from fee-paying students should be consolidated with the normal government grants and used to enhance the quality of academic programmes and provide staff incentives by supporting research, operations, staff salary supplementation, teaching and student support as decided by each university.*

Recommendation 3.5

> a) *Public universities should formulate and implement schemes for progressively recruiting up to fifteen per cent of their total number of students from outside Kenya within the next four years.*
>
> b) *International students should be charged fees at premium rates above the full fees charged to local students in order to cover capitation expenses. The level of fees chargeable to students within East Africa will be based on the prevailing rates negotiated within the framework developed by Inter-University Council of East Africa.*

3.5.1.8 Implementation of the recommendations in this section will lead to optimum utilization of available human and physical resources, harmonization of teaching programmes, competitive admission policies, and internationalization of syllabi and university life. The recommendation on progressive internationalization of public universities will enable local students to gain inter-cultural experiences and develop skills for functioning in a globalized environment. Furthermore, the nation will be assured of leadership role in the future socio-economic and political affairs of the region through education. Kenya should, therefore, aspire to be one of the hubs of higher education in the region.

3.5.2 Staffing Criteria and Norms

3.5.2.1 The number of teaching staff in a university is established by taking account of the total number of students and applying the appropriate staff -to- student ratio (SSR) applicable to the specific degree programme. The

applicable staff-to-student ratio is normally internationally accepted, and depends on the complexity of the degree programme. Professional degree programmes such as Medicine, Dentistry, Veterinary Sciences, Engineering and Architecture have lower ratios because there is a critical need for more intensive contact between staff and students.

3.5.2.2   The number of full-time staff for a given degree programme is determined by dividing the number of full-time students by the applicable ratio. At the institutional level, a gross staff-to student ratio is obtained by dividing the total number of full-time students by the number of full-time staff in post. Significant deviations from the appropriate standard ratios give an indication of the degree to which programmmes conform to established standards. Indicative staff-to-student ratios at the national level may be obtained by dividing the number of all full-time-students in all national institutions with the number of full-time-staff in the institutions.

3.5.2.3   Table 3.1 below gives the national gross staff-to-student ratios for various countries, including Kenya. The figures indicate that, on average, the national gross staff-to-student ratio in Kenya is 14.6, which is the median between countries high and low staff ratio. In general, the trend of SSRs can be increased without compromising academic quality by application of teaching tools which enhance delivery such as ICT.

Table 3.1: Average Staff –to-Student-Ratios in Selected Countries for all Academic Programmes

Country	Year	Ratio
China	2000	8.5
Sweden	2000	9.3
Canada	2000	9.8
Germany	2000	11.7
Norway	2000	12.7
Japan	2000	12.9
United States	2000	13.5
Kenya (public universities)	**2002**	**14.6**
Indonesia	2000	15.0
New Zealand	2000	15.8
United Kingdom	2000	17.6
France	2000	18.6
Netherlands	1998	18.7
Malaysia	2000	20.2
Australia	2002	21.0
Italy	2000	24.1

Source**:** CHE Unit Cost Document, 2004

3.5.2.4   The applicable staff-student-ratios in Kenya upon which the staff needs have been calculated are given in Table 3.2 below. It is noted that the ratios have substantially changed since the introduction of the self-supported student programmes. However, these programmes have skewed the staff-student ratio because the number of students has increased while the number of staff has remained constant.

Table 3.2: Current and Proposed Student to Staff Ratios for Selected Academic Programmes in Public Universities

Academic Programme	Student Staff Ratio		
	Benchmarks	Current	Proposed
Cluster I A: Dentistry – Pre-Clinical	6	10	14
Cluster I B: Dentistry - Clinical	6	8	10
Cluster II A: Medicine (MB ChB) – Pre-Clinical	6	12	15
Cluster II B: Medicine (MB ChB) – Clinical	6	9	11
Cluster III A: Veterinary Medicine – Pre-Clinical	7	13	17
Cluster III B: Veterinary Medicine - Clinical	7	9	11
Cluster IV: Architecture, Engineering, Surveying, Computer Science, Information Technology	8	12	15
Cluster V: Pharmacy	6	12	16
Cluster VI: Nursing	8	13	17
Cluster VIII: Mathematics, Natural Sciences	12	12	16
Cluster IX: Agriculture and Agricultural Sciences, Forestry and Wood Science and Technology, Food Science and Technology, Range and Wildlife Management, Environmental Science, Environmental Health, Ornamental Science and Landscaping, Biomedical Science and Technology, Education (Science and Technology), Appropriate Technology, Communication and Media Technology, Information and Library Sciences	8	14	18
Cluster X: Building Economics, Construction Management, Land Economics	10	14	18
Cluster XI: Law	13	17	23
Cluster XII: Business Management, Commerce	15	17	23
Cluster XIII: Education (Arts and Social Sciences), Environmental Studies (Arts and Social Sciences), Home Science and Technology, Hotel and Hospitality Management, Travel and Tours Operations Management, Recreation and Leisure Studies, Tourism, Sport Technology, Music	15	20	27

Source**:** CHE Unit Cost Document, 2004

3.5.2.5   The proposed SSRs are shown in column four of table 3.2 above. It is clear that as teaching intensifies through the introduction of alternative teaching infrastructure , the need to hold gross national SSRs to within an average of fifteen (15) would be desirable in the next ten years. Based on this ratio, and the projected growth in student numbers, the number of staff is expected to grow from the current figure of 4950 to 6000 by the year 2010. Using the current SSRs and the projected students numbers and growth levels, the number of teaching staff required to serve in public

universities will need to grow by twenty percent over the next five years. This increase will take account of the requirement for enhanced research and public service expected from staff in future. It also assumes that each academic staff will be required to spend thirty per cent of his/her time on research and community service. The number of additional academic staff required by 2010 will be 900, meaning that staff growth will be in the region of 180 for public universities per year for the next five years. However, this does not take into consideration new universities, Open University and private universities.

Recommendation 3.6

For planning purposes, the gross national SSR for public universities in Kenya should be pegged at a ratio of 1 to 15 for the next ten years, while the applicable cluster SSR should be those proposed (see Table 3.2)

Recommendation 3.7

An academic staff development programme should be put in place to ensure that the number of additional staff required over the next five years is trained in a phased manner of at least 180 staff per year over the next five years. This should be supplemented by a programme to attract Kenyan and foreign lecturers to come to the country.

3.5.3 Succession Programming: Staff Attrition and Replacement

3.5.3.1 Currently, the age distribution of teaching and non-teaching staff in most local universities tilts towards the older brackets as shown in Table 3.3 in the case of the University of Nairobi. This calls for careful planning of recruitment and staff development programmes geared towards replacement of those about to retire and to bring in new talent in the teaching force.

Table 3.3: Age Profile of Academic Staff at the University of Nairobi

Designation	Age group						
	20-29	30-39	40-49	50-59	60-69	70-75	TOTAL
Professor	0	0	1	39	48	4	92
Associate Professor	0	0	36	105	29	3	173
Senior Lecturer	0	4	143	126	29	3	305
Lecturer	1	111	320	133	18	0	583
Assistant Lecturer	3	93	29	2	0	0	127
Total	10 (1%)	239 (18%)	538 (40%)	409 (31%)	126 (10%)	10 (1%)	1332

Source: Submission from University of Nairobi, 2005

3.5.3.2 Strong postgraduate programmes are essential for building capacity for replacement of scholars, researchers and mentors for undergraduate students. Succession programming is, therefore, best achieved through strong postgraduate training and research programmes. Universities should therefore strive to expand postgraduate training programmes for purposes of capacity building. Furthermore, since most innovative research is usually done by postgraduate students, strengthening these programmes will enable the universities to assume a significant role in the knowledge economy *via* the generation of new knowledge. Finally, the physical expansion of facilities for opening up access to higher education should be matched by corresponding human resource development programme to output of critically needed lecturers in the future.

3.5.3.3 The Board also observed that some academic staff members are appointed to administrative positions in the universities for more than five years, and due to the nature of their responsibilities they are not able to undertake teaching, supervision and research. Universities need to utilize these personnel upon completing their terms of office as administrators. A transitional programme should be established to re-tool and update them for purposes of teaching and research in their respective departments.

Recommendation3.8

    a)   *Public universities with a strong training and research tradition in professional academic programmes (e.g. education, medicine, engineering, etc) should strive towards achieving the status of 'centres of excellence' by reserving at least ten per cent of the student population in the professional programmes for postgraduate students. Fee-paying postgraduate students should be attracted from the region.*

    b)   *The quality of the postgraduate programmes should be enhanced by ensuring availability of sufficient research funds and timely completion of research theses. The performance/quality of postgraduate training programmes should be audited/ supervised by CHE and the relevant university organs every four years.*

Recommendation 3.9

    a)   *Academic staff should be trained in pedagogy, modern delivery modes such as ICT, and the skills of writing marketable research proposals which are internationally competitive. The opportunities for the support proposed in the Blair Commission for Africa report and other agencies should be capitalized on.*

    b)   *A suitable formula for funding postgraduate programmes from the public, private and donor sources should be developed, however, provision of seed funds should be spearheaded by the government in the first instance. The government allocation of Kshs. 65 million for research in 2005/2006 financial year will motivate and inspire academic research. Part of these funds should be used to fund postgraduate research and training as well.*

3.6 INFRASTRUCTURE

3.6.1 Instructional and Research Facilities

3.6.1.1   Quality and quantity of teaching and learning materials particularly information technologies impact in a very significant way on the quality of teaching and research. However, the Board notes that accelerated growth in student numbers in the public universities has not been

matched by expansion of physical facilities and academic infrastructure. Some of the existing physical infrastructure is inadequate, dilapidated and in bad state of disrepair. The state of some of instructional and research facilities in public universities are, therefore, not conducive to high quality teaching and competitive world-class research. The shortcomings which have been noted in this area include:

- Inadequate and obsolete teaching and research equipment,
- Inadequate laboratory and office space,
- Poorly stocked libraries,
- Insufficient incorporation of modern ICT into university teaching due to limited ICT infrastructure,
- Limited staff-support with instructional tools, and
- Insufficient lecture theatres.

Recommendation 3.10

An inventory of the number, type and status of teaching and research equipment in public and private universities, as well as in national and locally based international research institutes should be undertaken to establish the available scientific research infrastructure in Kenya. Additional new scientific and instructional equipment should then be acquired for teaching and research, while existing non-functional equipment should be rehabilitated.

3.6.2 Stalled Projects

3.6.2.1 All public universities embarked on ambitious projects to expand their physical infrastructure in 1989/1990. Unfortunately, some of these projects stalled before completion. Some of the stalled projects are an embarrassing eye sore on the landscape of public universities in Kenya. Further delay in completing these projects is simply a postponement of the problem. All the public universities have a total of 56 stalled projects whose completion at current costs would require a total of Kshs. 8.7 billion. There are 26 new and proposed projects with approximately Kshs. 2.36 billion required to complete these (Table 3.4).

Table 3.4: A Schedule of Stalled Projects in Public Universities as of 2005

University	Stalled Projects		Ongoing Projects	
	No. of Projects	Amount to complete (x 10^6 Kshs)	No. of Projects	Amount to Complete (x 10^6 Kshs.)
Nairobi University	9	947.0	-	-
Kenyatta University	12	419.9	14	1.14
JKUAT	5	587.0	3	435
Moi University	8	1.93	-	
Egerton University + Laikipia Campus	13	3.08	9	787
Maseno University	9	1.7	9	787
Total	**56**	**8.7**	**26**	**2.36**

Source: Board Commission Study, 2006

3.6.2.2   A substantial number of the stalled projects are primarily those which were designed to expand access for training and research in the sciences. Estimates for completing the three stalled science complexes at Nairobi, Egerton and Moi universities was approximately Kshs. 0.75 billion in 1990. In addition, Kenyatta University is embarking on a major physical and applied sciences project, while Maseno is scheduled to embark on a critically needed university library. The completion costs of these pending projects and the projected new ones using the original designs, before furnishing and equipping the facilities, would be about Kshs 3.0 billion today (Table 3.5). Completion of these science projects should reduce congestion and increase access in the science disciplines which are critical for development.

Table 3.5: Status of Stalled Science Projects as at 2005

University	Facility	Status	Estimated Cost of Completion (X 10^6Kshs)
Egerton University	Physical Sciences Complex	65%	953m
JKUAT	Science Complex	Ongoing	153m
Moi University	Faculty of Science	9%	720m (Claims of 180m + 240m pending in court
University of Nairobi	Faculty of Science	75%	188m
Maseno University	Library	Proposed	535m
Kenyatta University	Physical and Applied Sciences	Proposed	187m
	Anatomy Library	Proposed	207m
Total			**2.943b**

Source: Board Commissioned Study, 2006

3.6.2.3   In addition to the stalled projects in public universities, the Board noted that there were many other stalled projects within the ambit of the ministries of education, transport and health. Underutilized facilities and capacities were also identified at some tertiary institutions such as KTTC, KSTC, Kilifi Institute of Agriculture, Bandari College, Teachers Training Colleges at Voi, and Kitui, and research institutes under the Ministry of Science and Technology.

3.6.2.4   The Board noted that some of these underutilized and idle physical and human capacities have already been identified by public universities who have converted some of them to external and regional campuses. The exploitation of these idle capacities can be maximized by coordination of their utilization by various universities in order to open them for additional access to higher education.

Recommendation 3.11

Stalled projects should be re-evaluated, rationalized and prioritized for completion in realistic phases. They should be re-designed in order to fit the available funding levels.

Recommendation 3.12

> *Funds for completion of the stalled projects and acquisition of appropriate equipment should be sourced from government, the private sector or the development partners as appropriate. Recent commitments by the G8 partners within the context of the Blair Commission for Africa should be vigorously followed up by the universities.*

Recommendation 3.13

a)   *The status of stalled projects within tertiary institutions should be established and assessed for possible use to open access to higher education.*

b)   *An inventory of underutilized capacities in various public institutions should be undertaken with a view to making them available to increase opportunities for higher education.*

3.6.3   External Civil Infrastructure

3.6.1.1   With respect to universities which are situated in peri-urban areas, the absence of suitable access roads, water, sewage disposal facilities and power will limit their future growth. The main private universities which are constrained by these civil infrastructures include Daystar, University of Eastern Africa, Baraton (UEAB), and African Nazarene. Public universities far from the urban areas such as Egerton and Moi universities are seriously constrained by lack of adequate water and suitable sewage and waste disposal facilities. Service lines for sewage facilities, water and electricity were also noted to be inadequate in some areas due to the rapid increase in student enrolment.

Recommendation 3.14

> *The government should facilitate provision and rehabilitation of essential civil infrastructure such as roads, water, power and security in order to encourage investment in private universities in peri-urban and rural areas in order to enable them to admit more students.*

3.6.4 Communications Infrastructure

3.6.4.1   The Board commissioned studies on the ICT status in the public universities which revealed that there were serious inadequacies in the provision of library and ICT facilities, science laboratories and engineering workshops in some of the public universities. The Board noted that such capacities are however available in the national and international research institutes located in Kenya such as KEMRI, KEMFRI, ILRI, ICIPE, and ICRAF. The Board noted that these institutes comprise Kenya's hidden treasures, since they have access to research facilities of international standards. Furthermore, some universities had invested heavily in the provision of modern ICT training facilities. The new state–of–the art ICT laboratories at the School of Computing and Informatics at the University of Nairobi affirms the commitment of public universities to employ modern technologies in teaching and research. The capacity in these institutes can be used to strengthen postgraduate research in the local universities.

Recommendation 3.15

a)   *Teaching and learning facilities (laboratories, libraries, documentation centres, ICT and relevant equipment) should be expanded to match increased number of students in public universities and to comply with established international benchmarks.*

b)   *A joint equipment procurement scheme should be established to guide public universities in purchasing the much needed laboratory facilities and equipment cost-effectively. This should be spearheaded by CHE in collaboration with National council for Science and Technology (NCST).*

3.6.4.2   Implementation of recommendations in this section on infrastructure will expand the route for attracting and admitting more fee-paying local, regional or international students to Kenya's public universities. In addition, a sustainable quality of education will be guaranteed, competent and committed staff will be attracted and retained, and a larger number of Kenya's best students will opt to study locally. This will enable the

country to meet the many challenges of the 21st century. Any unmarketable and non-competitive academic programmes will therefore need to be phased out or rationalized by locating them in one university with the requisite resources. Universities will also apply modern delivery methodologies supported by up-to-date library resources for teaching and research.

3.6.4.3 With respect to curricula, universities should incorporate experimental and experiential learning and internship in their curriculum. The most visible external quality assurance framework is that of external examination. The external examination system should be augmented through the use of other systems such as professional accreditation or a comprehensive evaluation by consultants on behalf of CHE. Such evaluations would consider factors such as the sufficiency of staff in terms of quality and quantity, the available facilities for learning, curriculum, the methods used in teaching and research output.

3.7 EXTERNAL QUALITY ASSURANCE FRAMEWORK FOR PUBLIC UNIVERSITIES

3.7.1 The Need for External Quality Assurance Mechanism

3.7.1.1 Currently, there is no effective external quality assurance regulator of public universities in Kenya. Public universities are, therefore, perceived to be non-accountable to the public in academic matters. A credible external quality assurance agency should ensure that public universities comply with established standards and quality assurance criteria.

3.7.1.2 The law establishing public universities in Kenya gives them power to decide what should be taught, who should teach it, and how it should be taught. With respect to accredited private educational service providers, CHE provides supervisory oversight on infrastructural standards and the courses offered. The establishment of new academic programmes in these private institutions is also accredited by CHE.

3.7.1.3   Public universities are not currently subjected to any formal evaluation or accreditation by an external quality agency. For all practical purposes, they are self-accrediting, and not rigorously under the quality assurance mandate of CHE. Whereas the CHE has the mandate to coordinate the expansion of higher education in Kenya and to rationalize academic programmes, CHE has mainly focused its attention on private universities. Public universities have, therefore, been primarily left to their own with respect to modalities of starting new academic programmes, or continuing with clearly unpopular, poorly subscribed, non-strategic and unmarketable programmes. .

Recommendation 3.16

a)   *CHE should be strengthened to enable it to effectively discharge its mandate of serving as the external quality assurance agency in higher education sector in Kenya. The Quality Assurance obligations should be discharged through the following proposed quality assurance expert committees which should be enshrined in CHE's legal structures.*

1.   *Arts, Humanities and Social Sciences (AHSS) committee*

2.   *Economics, Mathematics and Commerce (EMC) committee*

3.   *Basic and Information Sciences (BIS) committee*

4.   *Applied and Engineering Sciences (AES) committee*

5.   *Health and Human Sciences (HHS) committee*

b)   *There should be provision for establishment of other quality assurance committees or mechanisms as need arise.*

3.7.2 Duplication of Academic Programmes

3.7.2.1   The introduction of new courses in response to internal and external factors has generally been uncoordinated since each university responds from its own perspective and institutional perception of its mission. This haphazard response has generated a major duplication of courses and programmes in the universities, and introducing several redundancies which lead to inefficient allocation of national resources. For example, while most public universities offer Bachelor of Arts BA (General)

degrees, a large number of them have desegregated the BA degree into over 17 subject specializations. Similarly, universities have dissected the Bachelor of Science (B.Sc.) degrees into over 88 subject specializations, each with its own capacity, admission criteria and cut-off points. Table 3.6 below provides a list of all degree programmes offered in public universities in 2005. The table also indicates the enrolment in each degree programme.

3.7.2.2   Table 3.6 shows clear duplication and scattering of academic resources. For example, there are three Music degree programmes offered in three universities, with each degree programme admitting less than ten students. Interestingly, the related/similar programmes have different admission cut-off points. Mounting of such poorly subscribed programmes is a clear duplication in the face of limited resources. There are similar duplications in the Languages and Fine Arts degree programmes. There are other degree programmes that need close scrutiny in terms of, duplication, spread and utilization of the available teaching staff. The Board is of the view that the continuing process of admitting students to duplicated programmes should be rationalized with respect to admission capacities, infrastructure and human resources. Consideration should be given to pooling these duplicated programmes to at least one public university to form a centre of excellence. It is noted that there is some duplication in the most popular courses, in which the demand exceeds capacity by over five times for many of them.

3.7.2.3   Many new academic programmes continue to mushroom in public universities, leading to serious duplications especially those which do not require heavy capital investment or outlay. This has defeated the concept of 'centres of excellence', by which each university was expected to specialize in certain academic programmes. Furthermore, there are programmes in some universities that continue to attract very few applicants but manage to continue operating on the goodwill of the Joint Admissions Board (JAB) which allocates a critical but unwilling number of students to these programmes annually (Table 3.6).   There are no

convincing academic or economic reasons to continue offering such programmes in the public universities.

Table 3.6: Intake and Degree Programmes Offered in Public Universities, 2005

DEGREE PROGRAMMES	UNIVERSITY							TOTAL
	UoN	Moi	KU	E U	JKUAT	Maseno	WUCST	
BACHELOR OF ARTS	602		358	210		120		1290
1. Building and Economics	30							30
2. Land and Economics	29							29
3. Design	28					30		58
4. Planning	27							27
5. Anthropology	130							130
6. Music			6			4		10
7. Fine Arts			8					8
8. Kiswahili		29						29
9. Social Studies		120				24		144
10. Language and Literary Studies		122						122
11. Economics		49						49
12. Geography		50						50
13. Cultural Studies		119						119
14. Creative Arts – Theatre Arts		30						30
15. Communication and Media Tech						41		41
16. Urban and Regional Planning						31		31
17. History				30				30
BACHELOR OF EDUCATION								
1. Arts	299	232	404	153		84	49	1221
2. Science	20	57	211	161		85	51	585
3. Special Education			42			31		73
4. Home Economics (Arts)			21					21
5. French (Arts)			50					50
6. Fine Art (Arts)			5					5
7. German (Arts)			21					21
8. Music (Arts)			7					7
9. Early Childhood Education			35					35
10. Guidance and Counselling		37						37
11. Technology		46						46
12. Early Childhood and Primary Education		28						28
13. Primary Education							10	10
BACHELOR OF COMMERCE	246		136					382
BACHELOR OF LAWS	109	53						162
BACHELOR OF DENTAL SURGERY	21							21
BACHELOR OF MEDICINE								
1. Pharmacy	51							51
2. Surgery	132	46						178
BACHELOR OF SCIENCE	235	150	265	158	200	84	11	1103
1. Environmental and Biosystems Eng	30							30
2. Agriculture	84			35				119
3. Food Science and Technology	27	13		26				66

DEGREE PROGRAMMES	UNIVERSITY							TOTAL
	UoN	Moi	KU	E U	JKUAT	Maseno	WUCST	
4. Range Management	30							**30**
5. Agriculture Education and Extension	27							**27**
6. Agribusiness Management	26			73				**99**
7. Food Nutrition and Dietetics	16		41	25				**82**
8. Civil Engineering	61				31			**92**
9. Electrical and Electronic Engineering	67				32			**99**
10. Mechanical Engineering	46				34			**80**
11. Geospatial Engineering	27							**27**
12. Nursing	34	20	20					**74**
13. Actuarial Science	22					31		**53**
14. Industrial Chemistry	13		31					**44**
15. Mathematics	11							**11**
16. Meteorology	32							**32**
17. Biology	20						11	**31**
18. Geology	39							**39**
19. Statistics	11							**11**
20. Wildlife Management	10	38						**48**
21. Biomedical Laboratory Technology	13							**13**
22. Computer Science	31	26	42	35	32	30	26	**222**
23. Biochemistry	13	42	44					**99**
24. Analytical Chemistry			29		16			**45**
25. Biotechnology			32					**32**
26. Computer Engineering			24					**24**
27. Software Engineering			31					**31**
28. Water Technology			30					**30**
29. Energy and Engineering			31					**31**
30. Manufacturing and Engineering			30					**30**
31. Environmental Education			40					**40**
32. Environmental Health		22	43					**65**
33. Family and Consumer Sciences			9					**9**
34. Textiles Sciences and Design			13					**13**
35. Hospitality and Tourism Management			40					**40**
36. Medical Laboratory Science			25					**25**
37. Exercise and Sport Technology			54					**54**
38. Recreation and Leisure Management			41					**41**
39. Telecom and Information Tech			26		14			**40**
40. Crop Protection					15			**15**
41. Computer Technology					22			**22**
42. Biomechanical and Processing Eng					31			**31**
43. Food Science and Post-harvest Eng					22			**22**
44. Mechatronics Engineering					17			**17**
45. Electronics and Computer Eng					19			**19**
46. Geomatics Engineering					16			**16**

DEGREE PROGRAMMES	UNIVERSITY							TOTAL
	UoN	Moi	KU	E U	JKUAT	Maseno	WUCST	
47. Soil, Water and Environment Engineering					20			**20**
48. Construction Management					21			**21**
49. Horticulture				45	35	30		**110**
50. Food Science and Nutrition					9			**9**
51. Ornamental Science and Landscaping					20			**20**
52. Agriculture and Biosystems Eng		18						**18**
53. Microbiology		44						**44**
54. Agricultural Biotechnology		14						**14**
55. Food Service Technology		10						**10**
56. Seed Science and Technology		12						**12**
57. Forestry		39						**39**
58. Wood Science Technology		39						**39**
59. Information Sciences		51						**51**
60. Fisheries		40						**40**
61. Agriculture Biosystems and Management		9						**9**
62. Soil and Land Use Management		10						**10**
63. Agro-Forestry and Rural Development		29						**29**
64. Agriculture, Economic and Resource Management		56						**56**
65. Horticultural Science and Management		29						**29**
66. Apparel and Fashion Technology		8						**8**
67. Earth Science						31		**31**
68. Applied Statistics						32		**32**
69. Ecotourism2593, Hotel and Institute Management						42		**42**
70. Biomedical Science Technology						31		**31**
71. Disaster Management and International Diploma							11	**11**
72. Disaster Mitigation and Sustainable Development							8	**8**
73. Disaster Preparedness and Environmental Technology							10	**10**
74. Biotechnology							12	**12**
75. Sugar Technology							10	**10**
76. Agricultural Engineering				36				**36**
77. Community Development				25				**25**
78. Environmental Science				35				**35**
79. Water and Environmental Engineering				27				**27**
80. Applied Aquatic Science				20				**20**
81. Manufacturing Eng and Tech				26				**26**
82. Instrumentation and Control Engineering				26				**26**
83. Animal Production				30				**30**
84. Agricultural Education				80				**80**
85. Agricultural Economics				77				**77**
86. Natural Resources				52				**52**
87. Cloth, Textile and Interior Design				8				**8**
88. Biomedical Science Technology				34				**34**
BACHELOR OF ARCHITECTURE	32				22			**54**

DEGREE PROGRAMMES	UNIVERSITY							TOTAL
	UoN	Moi	KU	E U	JKUAT	Maseno	WUCST	
BACHELOR OF VET. MEDICINE	90							**90**
BACHELOR ENVIRONMENTAL STUDIES								
1. Environmental Res. Conservation			42					**42**
2. Community Development			64					**64**
3. Science			27					**27**
4. Planning and Management			35					**35**
BACHELOR OF MUSIC			9					**9**
B. LANDSCAPE ARCHITECTURE					23			**23**
B. TECHNOLOGY								
1. Electrical and Communication Engineering		27					28	**55**
2. Production Engineering		32					26	**58**
3. Computer Engineering		32						**32**
4. Chemical Process Engineering		31						**31**
5. Civil and Structural Engineering		30					27	**57**
6. Textile Engineering		32						**32**
B. TRAVEL AND TOURS OPERATIONS MNT		21						**21**
B. BUSINESS MANAGEMENT		53		65			54	**172**
B. TOURISM MANAGEMENT		33						**33**
B. HOTELS AND HOSPITALITY MNT		27						**27**
B. BUSINESS ADMINISTRTION						94		**94**
B. ENVIRONMENTAL SCIENCE						30		**30**
B. CRIMINOLOGY							11	**11**
B. SOCIAL WORK							9	**9**
B. JOURNALISM AND MASS COMM.							10	**10**
TOTAL 148	**2,771**	**2,055**	**2,422**	**1,492**	**629**	**885**	**374**	**10,675**

Source: Board Generated Data from JAB Admissions, 2005

3.7.2.4 Over fifty per cent of the students admitted to the following academic programmes in 2002/2003 had not preferred them in their choice of university programmes (Table 3.7). The performance in the programmes dominated by lukewarm applicants would be expected to be below expectation. The figures in Table 3.7 are numeric indicators of the relative popularity of the respective degree programmes. The figures represent the ratio of candidates with first choice to the actual number of candidates admitted. Programmes rated at 100 are the most popular while those with lower figures are less popular. Figures higher than 100 are rounded to 100.

Table 3.7: Relative Popularity of Degrees by Entering Students (100 = Most Applicants)

Programmes	University of Nairobi				Moi University				Kenyatta University				Egerton University				JKUAT				Maseno University			
	99/0	0/01	01/02	03/04	99/0	0/01	01/02	03/04	99/0	0/01	01/02	03/04	99/0	0/01	01/02	03/04	99/0	0/01	01/02	03/04	99/0	0/01	01/02	03/04
B.A	74	75	77	25					45	42	52	100	12		18	18								04	32	49	82	*60*
B.Sc.	99	92	100	100	65	48	73	78	67	66	71	100	37	23	26	27	94	92	93	100	17	20	31	*32*
B.Ed.(Arts)	91	83	74	100	57	45	50	32	91	82	66	100	27	24	25	13					13	17	28	*12*
B.Ed. (science)	0	100	100		100	97	70		100	100	93		28	24	49						17	19	18	
B.Sc. (Computer)	100	82	100								02		20	07	07		100	81	100					
Law	100	98			47	29															25	09	25	
Medicine	100	100			27	24															08	17		
B.Ed (Music)									96	46	53	42	12		18	18		04			32	49	82	*60*
B.Ed. (French)									92	84		78	37	23	26	27					17	20	31	*32*

Source: Board Generated Data from JAB Annual Statistics, 1999-2004

Recommendation 3.17

> *CHE, in consultation with the university senates, should identify academic programmes that do not attract enough students, are not cost-effective and are not responsive to market demands for restructuring or gradual phasing out. However, existing strategic programmes that may not be attractive to students should continue to be offered, while new ones are introduced in selected universities.*

3.7.3 Rationalization of Academic Programmes and Creation of Centres of Excellence

3.7.3.1   Public universities currently operate within a global environment whose inherent driving force is competition and response to market forces. In this global context, a university should offer relevant and quality academic programmes. It is not essential or desirable to have public universities in a country competing with each other in similar academic programmes. A national strategy to rationalize and share   university resources, based on competition and cooperation, should be formulated. This will lead to academic specializations at institutional levels and generate centres of excellence at national level. A centre of excellence does not necessarily imply that an institution monopolizes programmes which are not offered by any other institution. The idea is to underscore the market principle that excellence emerges when kindred institutions compete for resources or for clients on the basis of the quality of their programmes, services, or values. Higher education institutions should identify their unique, innovative and strong research programmes to compete for students, staff and funding.

Recommendation 3.18

> *University training and teaching programmes should be rationalized so that each public university in Kenya is recognized as a provider of some specialized training, research and consultancy services in specific area(s) of enquiry. This rationalization should be undertaken by all universities and be coordinated by CHE.*

Recommendation 3.19

> a) *CHE should spearhead the establishment of comprehensive guidelines for mounting new academic programmes in the public universities. Any new programme to be established in the public or private universities should undergo thorough testing on its relevance and capacity to advance national economic goals.*
>
> b) *CHE should also liaise with professional associations and get their views on new programmes before accrediting them. This would serve as an additional quality control system.*

3.7.3.2 Creation of centres of excellence in the public universities will ensure sustained provision of high quality university education in Kenya, which will have the potential for attracting students regionally and internationally.

3.7.4 Teacher Training Programmes

3.7.4.1 Faculties of education in Kenya's public and private universities produce graduate teachers for secondary schools and tertiary institutions. Education students study two teaching subjects, professional courses in education, and undergo at least one term of teaching practice. Postgraduate diploma and degree courses are offered in most faculties of education. A recent development involves the provision of training to enable non-graduate teachers to obtain

education degrees through school-based programmes. Secondary school teachers for science and technical subjects are also trained at professional teacher training institutions such as Kenya Science Teachers College and the Kenya Technical Teachers College.

3.7.4.2   In addition to teaching, trained graduate teachers are required to take up expanded roles and responsibilities as curriculum developers, education managers, and staff development facilitators.   Teachers, therefore, need to be equipped with knowledge, skills and competence, and attitudes to engage in the additional challenges that they encounter in the education sector. The Board received evidence that some graduate teachers from public universities do not have the expected depth in content of their teaching subjects and were not well-grounded on teaching methodology.

3.7.4.3   Many education stakeholders felt that graduate teachers were inadequate because there was no sufficient time to cover their teaching subjects in sufficient breadth and depth. The length and management of the teaching practice component were also challenged.   There was a shared feeling that supervision was inadequate and available expertise at the school level was not used during teaching practice. The production of inadequately prepared graduate teachers was perceived as a reflection of poor quality teaching and preparation at the university level.

3.7.4.4   The Board noted that teachers employed in public schools were accredited by the Teachers Service Commission (TSC), which is the main employer in the country. It was not established whether there was any statutory provision to require private schools to employ accredited and certified teachers by TSC.

3.7.4.5   The Board is of the view that a professional gate-keeper should be created to provide for national certification and registration of teachers who may be allowed to teach in the nation's schools.   Such a registration body would be most effective if it is independent of TSC and is professionally managed such as the Kenya Law Society, the Association of Architects, and the Medical and Dentists Practitioners Board.

3.7.4.6   The Board considered two proposals for addressing the noted inadequacies in training of graduate teachers. The first alternative is for the universities to craft postgraduate teaching diploma of high quality to be open to undergraduates who have fully covered the basic subject areas. The diploma in professional training would cover aspects of pedagogy, ethics, administration, curriculum development, and emerging teaching/delivery methodologies. The second alternative is to continue the current curriculum, but to extend the degree programme for at least one year in order to ensure that the graduate teachers have covered the requisite subject content and professional courses.

3.7.4.7   With respect to the inadequacies of lecturers responsible for teacher education programmes in public universities, there is need to mount a crash programme for training them in pedagogy. The Board views the inadequacies noted in training of education graduates are traceable to inadequacies in the organization and structure of the programmes provided and partly to the quality of the university teaching and the dominant values in the institutions. In addition to enhancing their teaching competencies, lecturers should also be expected to provide leadership and inspiration to the future graduate teachers.

Recommendations 3.20

    a)   *The current four-year B.Ed. programmes should be restructured to focus primarily on subject content and depth for four years, followed by at least one-year of professional teacher training course. This be implemented from 2008.*

    b)   *All primary and secondary schools in Kenya be required to employ teachers who are appropriately certified by a National Teachers Accreditation Board which should be established.*

    c)   *The TSC be de-linked from teacher certification and should instead concentrate its efforts on employment, discipline and deployment of teachers certified by the proposed independent Board.*

3.8 QUALITY ASSURANCE MECHANISMS IN KENYAN UNIVERSITIES

3.8.1 Development of Quality Standards

3.8.1.1   Quality standards are developed and established collectively with all stakeholders for each of the programmes. These standards are usually based on benchmarks, but also on public and stakeholders' expectations. At each quality control, a cluster of quality elements or indicators are assessed, compared with established standards and benchmarked against the ideal or chosen institutions. Such indicators may include FTSE, research output of lecturers, available equipment per laboratory and library space, and institutional values. High quality is magnetic, while poor quality is repulsive. High quality programmes attract quality lecturers who in turn attract quality students. Quality generates an enriching quality cycle, increases efficient utilization of resources and reduces waste. Poor quality is usually described in equally repulsive descriptors and indicators such as: Yellow notes, half-baked graduates, obsolete equipment, unreliable examinations, irrelevant programmes and limited research outputs.

Recommendation 3.21

> *CHE should coordinate the development of programme-based quality indicators which will be used in all universities for self-assessment and for external validation of the self-assessment data.*

3.8.1.2   In spite of the absence of an effective external quality assurance regulator, public universities maintain suitable internal and external quality assurance mechanisms which ensure that they deliver value to their stakeholders. The design, modification and implementation of curricula are processed through rigorous checks and balances at the departmental, faculty and senate levels. The setting, moderation, administration and processing of examinations are subjected to internal checks and balances, and validated by external examiners. The Board was, however, informed that there were some glaring shortcomings in these quality assurance mechanisms.   The shortcomings include conspicuous absence of industrial input in the development and modification of curricula and the rare but reported adulteration of the examination processes by unethical conduct of some lecturers, administrators and students. The attention of the Board was directed to some allegations of unmarked examination scripts with awarded grades.

Recommendation 3.22

> *The Quality Assurance Unit at CHE should coordinate the development of programme-based quality indicators which will be used in all universities for self-assessment and for external validation of the self-assessment data. A generic guide for generating indicators for various clusters of programmes should be developed.*

Recommendation 3.23

Curricula and content of professional programmes should be assessed continuously, but be rigorously reviewed at least once every five years, in order to incorporate new developments in the profession.

3.8.2 Quality Assurance Lessons from Elsewhere

3.8.2.1   A select number (cohort of ten per cent) of universities in many developed countries are ranked highly and categorized as research institutions, while the rest produce limited research but offer quality teaching.   A core curriculum (liberal education) is offered in such teaching universities. Such a core curriculum is intended to impart a broad education consisting of essential skills and core values which are not time-bound. These core skills include problem solving and communication skills which endure under varying conditions of time and space. This curriculum equips students with knowledge and skills for continuous learning and ability to adjust to changing circumstances.

Recommendation 3.24

Each university should develop and implement a set of common and required core courses which define the university's character and normative values. Such courses should impart enduring and adoptable skills, such as problem-solving and adaptability on the graduates.

3.8.2.2   Successful organization and quality assurance of higher education in developed countries is based on the principles of competition for better students, staff and funding among higher education providers, as the basis for continuing quality improvement. In such a competitive environment, the government plays an increasingly limited role in higher education, while the private sector shapes the academic

landscape. The sector is, therefore, characterized by organic flexibility and diversity. Diversity combines access with excellence, since there is a large pool of competing institutions for students to choose from. The final principle is that application of knowledge is the paradigm which drives higher education at present. This is reflected in the number of patents, science parks, industry links, incubators and innovation and centres which are mushrooming in countries with a mature and successful higher education systems.

3.8.2.3 Successful and prestigious universities make students the centre of their teaching and research. They admit students competitively, and assign students to various programmes through reliable placement tests. Such universities assume responsibility for their own quality assurance, since their primary competitive edge depends on how much confidence the public has on the quality of their academic programmes. They have verifiable institutional frameworks (policies, strategies, systems, infrastructure, culture, and resources) for ensuring that institutional standards are complied with, maintained, enhanced and validated through regular monitoring, review and auditing.

3.8.2.4 The measurement of quality starts with self-assessment. This is then validated by an external quality assurance agency using peer-review expert committees. The results of the quality assessment process are discussed with the institution, and made public by the quality assurance agency for the consumption of stakeholders and for public accountability and scrutiny. The external agency gives confidence to stakeholders that the outcomes of the programme are of acceptable quality.

3.8.3 The Bologna Process

3.8.3.1 Important lessons can be learnt from the practices of universities in Europe and South Africa. Universities in Europe are now part of a

reform programme known as the Bologna Process. The Bologna Process has been implemented in five steps. France, Germany, Great Britain and Italy signed the Sorbonne Declaration setting up a European Higher Education Area in 1998. The following year, 29 countries signed what came to be known as the Bologna Declaration which aimed at a continuous fundamental restructuring of higher education in Europe with clear goals to be implemented by 2010.

3.8.3.2   Participating countries, in the Bologna declaration, issued the Prague Communiqué signed by 31 countries in 2001. Lifelong learning, the social dimension of education and promotion of the European Higher Education Area were incorporated in the declaration. The Berlin Communiqué (2003) recognized the vital connection between European higher education and European research. The latest communiqué issued in 2005 (Bergen Communiqué) was signed by 45 countries. The principal recognition in this communiqué was study structures, quality assurance, and recognition of degrees and competencies.

3.8.3.3   Three universities in northern Germany have introduced internationally recognized quality assurance measures as part of the Bologna Process. The University of Oldenburg has developed rigorous internal structures to evaluate both course (curriculum) and its delivery (teaching). An important lesson from the Oldenburg experience is the evaluation of on-line courses. This is important because on-line courses are challenging to evaluate yet they open a new avenue to expand access. The University of Leipzig is implementing its quality assurance measures in cooperation with the state- of – the- art BMW Plant in the same city. The interface between the engineering programmes at the University and the production of BMW cars are a good example of industrial linkages. Quality is not only assured but

enhanced. A vital lesson to be learnt from the Technical University of Berlin is that the tactics and strategies of an institution begin from within. They are then continuously and regularly validated from outside through outputs.

3.8.3.4   The University of Cape Town and the University of Stellenbosch are among universities in South Africa that have set themselves high standards and have much in common with German universities. Consistently ranked among the top five in Africa out of two hundred universities on the continent by various external evaluators, the input – process - output model is clearly discernible in their quality assurance structures and processes.

3.8.3.5   The evolution of quality assurance in the South African higher education system in the last 10 years has many lessons for countries intent on improving their quality of education. The South African Higher Education Act of 1997 placed the responsibilities of programme accreditation and quality assurance under the Council of Higher Education (CHE). One of the permanent sub-committees of the CHE is the Higher Education Quality Committee (HEQC) which has been given the specific mandate of ensuring and promoting quality of education. The Act is very clear that the quality assurance mandate of the HEQC is carried out within the framework of the Regulations for Education and Training Quality Assurance (ETQAs) of the South African Qualifications Authority (SAQA) whose responsibility is to support the National Qualifications Framework (NQF). The HEQC has organized institutional audits in cycles of six years. During the 2004-2009 cycle, for example, all institutions of higher learning will be evaluated at least once on three specific areas: teaching and learning; research; and community engagement. Institutions of higher learning

include universities, technikons/universities of technology, agricultural colleges and private providers under HEQC.

3.8.3.6   The evaluation by the HEQC is always preceded by self-assessment of the institution. Dialogue between the institution undergoing assessment and the HEQC during the pre-audit period helps the institution prepare for the audit. One of the cardinal principles in the South African audit structure and process is that quality promotion begins with the institution evaluating itself. The famous philosopher, Socrates believed that everybody possessed the truth. Socrates' role was to help the student/learner deliver the truth. Similarly, the South African approach to quality assurance is that institutions have the capacity to produce high quality. The role of the HEQC is to help institutions deliver and nurture that high quality. Consequently, it is another cardinal principle of the HEQC that it will not use the audit judgments to rank higher education institutions. To paraphrase the HEQC, the purpose of the institutional audit is to encourage the institutions to engage in systematic and continuous quality improvement appropriate to their context.

3.9   MAINSTREAMING QUALITY ASSURANCE IN KENYAN UNIVERSITIES

3.9.1 Teaching and Learning

3.8.1.1   The institution or programme carries out a self-assessment based on precise criteria. The self-assessment is next validated by an external quality assurance agency using peer-review committees. The results of the quality assessment process are then discussed with the institution, and released by the quality assurance agency to the stakeholders and public for accountability and scrutiny. Validation of self-audit by an external agency provides confidence to stakeholders

that the outcomes of the exercise meet the levels of quality standards and the compliance which are generally agreed upon.

3.8.1.2   The expected standards are established and sustained on the basis of several principles. The first principle is that universities are established to seek truth, understand nature, and discover the forces of human conduct and aspirations. On this basis, it is understood that inordinate focus on fund-raising or commercialization of academia may easily detour the university from its core mission and threaten the unbiased search for objective knowledge. Consequently, too much focus on ancillary income-generating activities may threaten quality and intellectual standards. The other broad principle is that rapid expansion of universities may compromise quality since the number of available lecturers does not expand at the same rate. The critical principle is that competition for students, lecturers and research grants forms a sound basis for establishing and sustaining quality.

3.8.1.3   The best approach to mainstream quality assurance in Kenya's higher education sector is to develop relevant quality indicators for use in assessing programmes at the departmental/institutional, national and international levels. In case of programme assessment, programme-specific criteria should be developed in consultation with key players in the sector, such as professional associations.

3.8.1.4   Contemporary thinking and practice in respected universities gives pride of place to quality assurance indicators that have been developed by the university itself and validated by an eternal quality assurance agency. Having accepted responsibility for the quest, attainment and improvement of quality, the university then presents its internal assessments to an external authority or agency. At this stage, the institution will have shown how it applies its rules and regulations

pro-actively in the teaching/learning process and also in the administration of examinations. Given the incidence of reported cheating by students and laxity in setting and invigilation of examinations in some universities (see 4.4.3), universities will need to strengthen quality assurance measures that give guidance on the proper administration of examinations and other forms of educational measurements.

3.8.1.5 Philosophy of education stresses the multi-dimensional nature of the teaching/learning process. True pedagogy, like a multi-faceted gem, not only imparts information but it also forms the practitioners of education. It trains critical-creative minds, produces innovative practitioners and society gains the benefit of dialogical citizens. Yet a vital task remains for higher education in Kenya: the place of examinations as a quality assurance feature of the teaching/learning process.

3.8.1.6 It is vital that the curricula of the various university faculties, schools, institutes and departments articulate clearly the way in which the teaching/learning process is related to examinations and other measurements of educational achievement. This is important because some education systems give such weight to end-of-year, end-of-course, end-of-programme examinations that the teaching/learning process becomes examination-oriented to the detriment of other objectives of quality and broad education. There is also evidence of other education systems that de-emphasize examinations so much that it becomes nearly impossible to evaluate and improve the quality of their programmes. Besides the information, formation, innovative and dialogical ends of education, contemporary philosophy of education emphasizes the life-long-learning nature of education. Curricula in the universities have the task of defining the nature and

place of examinations in such a way that examinations do not spell the end of life-long-learning but are an integral part of the learning process. Indeed, this was part of the original rationale of Continuous Assessment Tests (CATs). CATs were meant to remove the weight of examinations from the end-part (tail-end) of the process of learning by spreading it more evenly along the continuum of learning. This is the reason why CATs that have not been marked or evaluated and results returned to students in time defeat their very purpose .The Board was informed that this happened in some public universities. Another reason why the curricula of universities should describe or define the relationship between the teaching/learning process and examinations is that true assessments measure not only the success or failure of the learner but also of the instructor. Thus examinations become an integral part of the teaching/learning process. And good teaching not only gives knowledge but also stimulates learners that seek it.

3.8.1.7 The fundamental quality principle is that the university is responsible for the quality of the educational programmes and services it provides. The university should, therefore, ensure that the systems for quality assurance are in place and are functional. The internal systems must comply with nationally set criteria. In the case of institutional internal quality assurance, the criteria will be based on how the quality expectations have been mainstreamed to ensure broad institutional participation, but with specific responsibilities and authorities. The quality assessment results should be reported to the university council periodically after validation by the national external quality assurance agency. The external quality assurance agency such as the CHE should coordinate quality assurance at the national level. Academic programmes should also be rated on the basis of their level of compliance with agreed standards.

Recommendation 3.25

a) *Enforceable internal quality assurance mechanisms should be introduced to ensure that lecturers cover the course content, attend to lectures, set examinations and mark them on time.*

b) *In drawing up the curricula of its programmes, every university faculty, school, institute or department should articulate, describe or define the relationship that obtains between the teaching/learning process and examinations in their programmes, and the role external examiners as part of quality assurance measures.*

c) *Each university should establish a Quality Assurance Office (QAO) with responsibility for ensuring that academic and management functions are compliant with declared standards.*

d) *Public universities should adopt innovative approaches to teaching such as problem-based learning (PBL), community-based education and service, legal aid clinics, teaching practice, industrial attachments, community attachments, mentoring, counselling and internships.*

e) *There should be periodic reviews of all university curricula by competent expert committees in order to ensure that programmes are consistent with changes in technology and industry and responsive to emerging market demands.*

f) *Universities should only be allowed to offer or start academic programmes for which the necessary capacity, facilities and resources are available.*

Recommendation 3.26

The universities should strive for appropriate international certification such as International Organization for Standardization (ISO) certification on both academic programmes and management systems in order to attain international benchmarks in their quality assurance systems.

3.8.1.8 The applicable quality assessment procedures and outcomes have direct implications on the global deportment of Kenya's higher education sector and the credibility of the country's educational qualifications and certifications. For purposes of credibility, quality assurance audits and validations should be done by a sub-committee of CHE whose membership should include stakeholders such as Federation of Kenya Employers (FKE), Kenya Association of Manufacturers (KAM), Higher Education Loans Board (HELB), Ministry of Education (MoE), Directorate of Personnel Management (DPM), the relevant professional associations, and two senior professors in the discipline. The team of auditors from the external quality assurance agency will validate data through perusal of documents, direct engagement with staff, students and external stakeholders, and the relevant professional bodies.

Recommendation 3.27

The universities should invest much more in alternative modes of making higher education more accessible to the majority of Kenyans through open, distance and virtual learning. All approaches to learning and delivery modes will require innovative quality assurance mechanisms which CHE should develop in consultation with the service providers.

3.9.2 Quality in Research

3.9.2.1 Research is the systematic approach of identifying options for creating wealth by adding value to natural resources, and by developing human resources. It is the best way of mobilizing knowledge and scientific assets to drive economic transformation and reduce poverty. The level of development of any country is correlated to the relative investment in research and development in the public and private sector. It is a means of developing new knowledge and capitalizing on

it for effective competitiveness. The critical component of a successful research enterprise includes strong government commitment (one to two per cent GDP) and private sector investment.

3.9.2.2   Research is undertaken individually or collectively in government institutes, private enterprise laboratories and universities. To ensure undivided focus and maximum returns, it is usually essential to coordinate activities within a defined research policy and objectives. Furthermore, government development policies should be buttressed by sound scientific evidence in order to instill reliability and maximize on investment returns in the productive and social sectors. There is limited capacity for coordination of the national research effort, assessment of research output, and performance measurement on research in Kenya.

3.9.2.3   The quality and standards of any university's academic programmes cannot be determined independently of its research output. To enhance the quality of programmes in public universities in Kenya, the government and the private sector should allocate funds for research, while lecturers must commit themselves to defining the research agenda and by undertaking research projects vigorously. Research enterprise in Kenya is constrained by the poor coordination and harmonization between researchers and research institutes, and the limited funding allocated to research. Lack of a precise research and science policy has hindered the formulation of coherent national research agenda, which in turn has generated very few linkages with the economic sector for utilization of research findings. There is also limited equipment and diminishing motivation for researchers.

3.9.2.4   Full benefits of Research and Development (R&D) are achieved by ensuring that the enterprise is based on strategic national objectives,

and consistent with the national development policies. Since research activities are spread across many sectoral areas, there must be a framework for coordinating these and creating channels of responding to sectoral demands. Universities should develop capacity to play the roles of coordinating and championing research in Kenya by taking up leadership in research initiatives.

3.9.2.5   Universities should play a central role in coordinating the establishment of the proposed national research fund, and spearhead critical research efforts and application of research findings. They should serve as national observatories on global developments and become conduit for acquiring and localizing new research findings from the global arena, and thereby assist the nation in developing a viable scientific policy. Such initiatives should include utilization of scientific and technological knowledge to enhance overall national development, increase food production, create employment, and alleviate poverty.

Recommendation 3.28

A joint secretariat of public universities' science and technology initiative should be established and focus on food diversity and security; infrastructure (roads, dams, construction); renewable energy resources; science and national security and human capacity building as well as serve as the national science and technology observatories.

Recommendation 3.29

The National Council for Science and Technology (NCST) should work with universities to advance the national research agenda, assume a proactive approach in articulating national research priorities, and enshrine research output as a component of staff appraisal.

Recommendation 3.30

Research should be made an integral part of the responsibilities of every academic member of university staff. Academic staff should be evaluated and appraised annually on the basis of research output, in addition to teaching, administration, and mentoring and community service.

Recommendation 3.31

The government should take special interest in research in the universities by enacting a national science policy to formalize mechanisms for funding and utilizing research output.

Recommendation 3.32

Universities should establish linkages with industry in order to ensure that the research undertaken by staff and students meets the needs of society, and that graduates get necessary practical skills through industrial attachments and internships.

3.10 UNIVERSITY LINKAGES AND SHARING OF RESOURCES

3.10.1 Utilization of Scarce Resources

3.10.1.1 A major non-competitive quality enhancement mechanism is sharing of resources and strengths among universities. Besides competition, higher education providers often cooperate so as to contribute to the accreditation and quality assurance processes. A platform for sharing scarce resources such as information library resources, laboratory facilities, and specialized scientific equipment among national universities will need to be developed and institutionalized within the proposed Higher Education Act. Rationalized academic programmes will lead to the creation of centres of excellence in Kenyan universities. This will ensure that each university has its own unique programmes based on comparative advantages over the other universities.

Recommendation 3.33

a) *Universities which share similar academic programmes should not only compete, but also collaborate, by sharing some scarce resources in order to build a national capacity and ensure quality for each of the programmes.*

b) *For purposes of collaboration and related synergies, a legal and policy framework for establishing and managing shared or jointly owned facilities for use by university students and staff in Kenya should be created. Such facilities may consist of:*

- *A National Instrumentation Centre (sharing of expensive equipment),*

- *A National Innovation Centre (collaborative science and technology park), and*

- *A National Library Holding (shared information resources).*

3.10.2 Technology Innovation Centres

3.10.2.1   The proposed platform of technical universities should form a network with innovation centres in other universities to create a route through which institutions of higher learning can play an active role in the technological and economic development of the country. Innovation centres are able to strengthen university links with industry and commerce and attract knowledge-pulled investors interested in Research and Development (R&D). Such centres will support start-ups and incubations, and generate innovation-led, high-growth, and knowledge-based industries. They will also provide opportunities for large scale or international businesses to interact with the specific centres of knowledge-creation for their mutual benefit. The establishment of such discipline-based innovation centres can easily be driven by professional associations such as those of engineers, physicists, geologists and chemists.

Recommendation 3.34

> *Universities should focus much more attention on hands-on and applied technology in addition to academic science-orientation thereby preparing and empowering the country's human resources for production and not simply consumerism. This will transform the country into a nation of innovators and producers and not mere hawkers of goods produced elsewhere.*

3.11 CONCLUSION

3.11.1　In the long term, to strengthen and sustain quality of teaching, research and service to the community competition for students, staff and resources will be the hallmark for the development of higher education programmes in Kenya. Competition is expected to spur attainment all-round quality of output. This will enable the universities to achieve global recognition, and attract fee paying students locally, regionally and internationally. If quality enhancement is well-managed, the current trend of a large number of Kenyan students choosing to study abroad at high costs and financial sacrifices to family and country will be reversed.

3.11.2　Institutionalization of the proposed regular programme reviews will enrich curricula by incorporating emerging technologies and societal needs. The reviews, accreditation and validation of curricula by an external quality assurance agency will ensure that programmes remain relevant and that duplication is limited or avoided altogether. National standards and benchmarks for measuring the level of quality should also be reviewed periodically.

3.11.3　Finally, self-assessment protocols will be developed and the use of peer-review committees for quality assessment be mainstreamed.

These peer-review processes will enrich the regular external examination systems and anchor quality in the higher education sector.

CHAPTER FOUR

STUDENT WELFARE AND DISCIPLINE

4.1   INTRODUCTION

4.1.1   University education is a process that has various objectives for students, including the acquisition of knowledge and skills, character formation, fostering of creative and responsible critique and the challenge to enter into dialogue with others in community and society. Since students often spend up to nine months in the year at the university from their homes, the university should be their new home. During their study and stay at the university, they need to become members of a new family, and a new community. The expanded space of their new environment ought to be accompanied progressively by a greater ability to accept responsibility because true freedom means greater responsibility. Therefore, universities should facilitate the students' intellectual growth as well as the development of other life skills that will enable them to operate effectively within their communities and the world of work.

4.1.1   From public hearings and various memoranda presented, the Board perceived the deep concerns regarding current university education we witnessed the great expectations Kenyans have on the graduates of our national universities. Employers are looking forward to graduates who value integrity, are capable of teamwork, and are well-trained for technological innovation. They should be strong in character as would be evidenced by the conduct of their affairs and interaction with others. Concerns were expressed on the need to produce graduates that have writing and presentation skills; who have communication and time management abilities; practitioners of a strong work ethic and a high self-esteem. Further, the graduates should be job creators and not job

seekers. Those employed should be able to stand out by seizing opportunities and providing leadership in innovation and creativity.

4.1.2   The Board, in its quest to appraise the state of student welfare and discipline, identified the following critical areas as being essential in transforming their input into the desired outputs: admission; orientation; catering and hostel facilities; security; counselling services; internships; recreational facilities; placement; work-study programme; students' leadership and communication channels. Equally important is the Board's concern regarding the welfare of academic and professional progress of postgraduate students to ensure timely and successful completion of their degree programmes.

4.2   ADMISSIONS

4.2.1   The Board notes that so far JAB has managed the process of student admission effectively in spite of limited resources. However, there are a few areas which can be streamlined in order to improve the process. For example, there is poor coordination between JAB and heads of secondary schools. The Board received representations that some students got the university forms late; while some headteachers do not forward the same to JAB, others discourage students from applying for some courses. It was also reported that some head teachers of secondary schools were discouraging candidates from filling the forms by prejudging them as non-qualifiers only for such students to find out after receiving their KCSE results that they have qualified.

4.2.2   Another constraint is that the current position with respect to admission of students to public universities through JAB is that the candidates are in limbo for a period of about two years between the time they sit for the Kenya Certificate of Secondary Education Examinations (KCSE)

and their admission to the universities. This time span leads to idleness and parents pointed out that it could lead to formation of anti-social behaviour. The system also creates non-equity as the children of the rich enter university early on self-sponsored basis whilst the poor have to wait for two years with anxiety, not knowing their fate. The Board notes that earlier on the government had tried to fill this period with the three months of compulsory national youth service; however due to its militaristic nature, it was so unpopular that it was finally discontinued. In developing countries, the year before admission to universities, popularly known as the 'gap' year is used by some students to travel or pursue other interests while they make up their minds about what exactly they want to study.

4.2.3   The situation in polytechnics and other tertiary institutions is that they admit candidates early with lower grades (C+ for example), since candidates with B's would be waiting hoping to be admitted to universities. Many better qualified students are disappointed when the JAB announces that the minimum entry point to the university would be a B+. Consequently, a proportion of candidates qualified to enter tertiary institutions find themselves locked out from both the universities and the middle-level colleges. This problem can be solved if JAB carried out the admission to the universities before or about the some time as middle-level colleges.

4.2.4   In the past, the major constraints have been mainly two fold; personnel and resources available to JAB secretariat and some of the public universities not having regularized their admissions due to limited bed space. As it has been recommended many times before, universities should not tie admissions and academic calendar to bed space. The government would also need to increase its capitation to the public universities to enable them to improve their facilities in order to

regularize their academic years such that all new students whether self or government-sponsored report for registration at the same time.

4.2.5   On the other hand, if the process cannot be speeded up, this period could be used for voluntary community service. Institutions such as schools, hospitals, children's homes and even communities could benefit greatly from voluntary services by form four school leavers. Students would in turn benefit from the hands-on experience of the world of work, and the sense of responsibility that they would gain. The Board is aware that some parents are already facilitating access for voluntary service for their children after form four. Voluntary community services offered in institutions such as USIU and Starehe Boys Centre would be good examples to emulate. Admission to the university would require that a student should have undertaken some form of voluntary service.

4.2.6   The services would then go on until a student gets absorbed into the university or any other tertiary institution. Students who participate in such programmes would be given a certificate to show their performance, including duration of programme and the skills gained.

Recommendation 4.1

The proposed JAB committee of CHE should complete its work within six months after release of KCSE results to eliminate the two-year waiting period.

Recommendation 4.2

Teachers Service Commission should ensure that head-teachers adhere to the universities' instructions on application process.

Recommendation 4.3

> *The Board recommends that the Ministry of Education in consultation/collaboration with civil society set up a Students' Voluntary Service Programme (SVSP) for school leavers before they join the university and other middle-level colleges. This programme be expanded to cater for graduate of the universities before they get into employment.*

4.3 ORIENTATION

4.3.1   Orientation programmes ought to be adequately prepared and cannot be regarded as perfunctory functions that simply need to be disposed of at the beginning of the university calendar year. They should encompass meaningful and memorable moments during which new students are warmly received as members of the university family and community. Induction programmes can be definitive moments both for the university as an institution and for the student. Orientation programmes should offer an opportunity for the university to state what it is offering its students and what it is expected of them. It is the time when the university administration/management and other members of the university community make presentations of the university's history, vision, mission, and core values to new students. The university states what it is, i.e. it literally defines itself and by so doing inspires or lacks to inspire the student to begin to define himself/herself as a member of a great institution. Thus, induction programmes should be formative moments for the freshmen and women of a university and should not be administered as mere rituals.

4.3.2   The Board was informed that, most of the public universities have well structured orientation programmes that new students are taken through during the registration period which conclude, in most cases, by an address from the Vice-Chancellor to all new students. However,

it has emerged that not enough time is given for the process and that students receive instructions from many officers within this short time.

4.3.3   A student coming into the university is full of great expectations that are also shared with his /her family. For these expectations to be fulfilled, the student needs to be given a friendly and stress-free transition into university life. Unfortunately from the submissions made to the Board, many of the public institutions are failing to ensure smooth transition from secondary schools to university life. For example, students are not given adequate information on campus environment and location. The following excerpt, an orientation programme experience of a past student, underscores the need for an effective orientation programme.

My first day on campus was an ordeal that will forever remain etched on my mind. My tribulations began immediately I arrived on campus after travelling from one end of the country unaccompanied for the first time in my life. Exhausted and laden with a suitcase I tried to find my way around similar looking buildings too proud to ask for directions from the strangers around me. Half an hour later I realized that I was moving in circles. This is one of the few times I have regretted dropping geography in high school. Had I done the subject perhaps I would have been more adept at reading my map. Eventually, I swallowed my pride and sought help from someone who misdirected me to the technology workshop where I found old, dusty engines. Frustrated I headed back to the gate and decided to tail other equally confused new students. Talk about the safety in numbers

Finally, I made it at the end of a very long registration queue where I spent the better part of that day minus lunch. Just as I reached the front of the queue, the people who were conducting the registration declared the exercise over for the day as they hurriedly packed their documents

They ignored our pleas and instead offered us temporary accommodation. When I finally got to my temporary room at night I learnt that I would be sleeping in a bed without any bedding. I dropped my bags and went in search of a meal only to find another queue that was moving at a snail pace. Suddenly, it began to drizzle but lucky for me the lady in front of me was kind enough to share her umbrella with me. After waiting forever I finally got to the counter where I learnt that I had to pay before eating. By then I was so disoriented that I deciding what to eat, was a monumental task. I settled for what the cashier recommended. I gulped down the food clearing my plate in no time but my stomach was still grumbling. Dejected I decided to walk back to my room in the dark in pouring rain only to lose my way.

Drenched to the bone and at the brink of giving up, I whispered a prayer and believe it or not I found myself at room C 09 my temporary room. After changing into something warm I jumped onto the metal bed and tried to summon sleep without success. I woke up in the middle of the night to go for a short call but the door was locked. I woke up my room mates seeking for help but they ignored me. I had to settle for urinating through the window

Campus Rover, The Standard, December 8th, 2005

4.3.4   Compared to the secondary school therefore, the new student discovers that a university is a small town in itself. It will take her sometime to find the right lecture halls. The library is another maze, and where computers are provided, the student knows they will have to wait until she has become computer literate, or as they like saying "dot com". And in spite of all the don'ts, she discovers that there is nobody to punish her when she decides to break all the rules. Just as there is nobody to reprimand her when she does wrong, there is no one to offer advice and support for example when she is bereaved, pregnant or simply not coping with her studies. The Board was also informed that universities have taken cognizance of these problems and are taking actions to alleviate the experience felt by students in these circumstances. One university, we were informed, has established a counselling programme to mentor students on drug and alcohol abuse.

Only systematically planned orientation programmes can adequately socialize new students. In addition, tailored orientation programmes need to be put in place for special needs and foreign students as done in universities abroad.

4.3.5 The use of both social and academic mentorship programmes for new students cannot be overemphasized. This is the time students are growing up and searching for role models. It is also a time they are most vulnerable to sexual harassment, involvement in exploitative relationships and peer pressure are likely to be involved in anti-social behaviour. The Board noted that although some of the universities have mentorship programmes, much more needs to be done in this field.

Recommendation 4.4

Student handbooks should be sent out to students admitted together with the admission letters.

Recommendation 4.5

a) *The universities should provide adequate information about their institutions in the documents sent to the admitted students, such information to include the following; accommodation, catering arrangement on and off campus ,the geography of the university and its campuses, specifying locations, facilities, important telephone numbers, and all policies pertaining to the university including sexual harassment policy.*

b) *Public universities should have clearly identifiable receiving officers to usher in new students into the universities.*

Recommendation 4.6

Public universities should introduce both academic and social mentorship programmes for their students.

4.4 THE LEARNING ENVIRONMENT

4.4.1 Learning Facilities

4.4.4.1 The learning environment does not just constitute the libraries and lecture halls; it also encompasses traditions, attitudes and other core values of the institution. Indeed, the orientation period that has just been covered is part and parcel of the learning environment. Public universities should try as much as possible to keep to the accepted international norms and standards regarding the learning environment and develop a culture of maintenance of the learning facilities. A student's first impression of the university, if positive, will enhance his/her learning experience. Provision of adequate and suitable learning infrastructure is crucial for effective and enjoyable learning. In many of the institutions visited, students said that their learning facilities were inadequate, substandard or even obsolete. One student lamented thus; *"I was shocked to find that my high school laboratory had better equipment than what I found here at the university!"* Libraries were said to be overcrowded. Inadequate and substandard equipment leads to frustration and lack of joy in the learning process, and impact adversely on quality of learning as covered by the chapter on quality within this report. A student should not be faced with a ''one star facility'' when they have paid for a ''five star environment!

Recommendation 4.7

Public universities should ensure that tuition and learning facilities comply with the standard specifications prescribed by the quality assurance unit of CHE.

4.4.2 The Learning Process

4.4.2.1   Every public university has clear rules and regulations that govern the conduct and discipline of students in both their social and academic endeavours as will be mentioned under the section on students' discipline and conduct. The Board notes that universities are not secondary schools hence students do not expect to be returned to a secondary school situation and neither is it desirable by any standards. On the other hand, the transition from secondary to university must be manifest through actual growth and maturity; it is like an initiation process where one understands that every obligation goes with responsibility. The Board appreciates the fact that, lecturers in universities are not like secondary school teachers and they expect some acceptable level of maturity, interest, and independence in thought and enquiry from their students in order to operate at an appropriate level and produce university level products. The Board notes that while quality teaching by lecturers lies at the core of producing quality graduates, it regrets the loss of useful teaching time close to three weeks either by students not reporting on time or lecturers not adhering to semester dates that may compromise on quality.

4.4.2.2   The Board observes that many lecturers are recruited without any prior training in pedagogy and that in most departments; introductory lectures are left to either lecturers or tutorial fellows who are not yet authorities in these fields. Further, the fast growth in student numbers as well as involvement in part-time work in private universities has left little time for one-on-one consultations and closer supervision of students by lecturers. Coupled with this, there is lack of close follow-up of students' progress. Many students who gave their submissions complained that several lecturers were impersonal and did not seem to nurture creativity and hard work in their students. The lecturers were

said to be unavailable for one-on-one consultations while others were said to be completely unethical – never reporting for lectures and turning in ghost marks at the end of the semester to cover up their laxity. Other lecturers misplaced examination scripts or failed to mark them. The Board was informed that

> We were checking out one of the university houses that had been rented by one of the lecturers to see whether we could rent it. In one of the rooms we came across a whole bunch of students' unmarked scripts.
> **Comment by an Associate Professor in a public university.**

others compromised female students for high grades. Little wonder then that students now speak of "sexually acquired degree (SAD)". What seemed to be even more unacceptable to the students was that there were no avenues for raising their complaints or redress from such conduct.

Recommendation 4.8

The existing codes of conduct for both students and staff should be reviewed by universities drawing from wide consultations amongst management, students, lecturers, alumni and parents.

Recommendation 4.9

Clear communication channels on examination procedures and grievances and other concerns should be put in place and built capacity for all partners to communicate and dialogue effectively.

Recommendation 4.10

Foundation lectures in all thematic areas should be given by senior experts/professors in the specific areas.

4.4.3 Examinations

4.4.3.1 Members of the Board were informed that, despite the existence of rules and regulations that govern the conduct of examinations, there was laxity in supervision of examinations. This has contributed to increasing cases of cheating (popularly referred to as dubbing) during examinations. Such conduct does not encourage real scholarship which is what universities are all about. Cheating also disheartens honest students, who, after working hard, find themselves with the same or even worse grades as others who had never taken their studies seriously. The Board observes there is laxity in the setting of examination as well as in the invigilation and these are avenues that are usually exploited by both students and academic staff to compromise the process.

4.4.3.2 It is further observed that those caught cheating are not dealt with promptly and there are no clear avenues of redress should one feel unfairly treated. The appeal system is also not well-streamlined and in most cases, it is not student-friendly. A well-defined redress/appeal system could be used to serve as a quality control mechanism in the examination process through which both students and examiners may benefit. Due to the increased number of students in the public universities, the Board notes that there is need to explore and introduce innovative ways of conducting examinations within the universities to curb cheating. Further, the Board observes that cheating at examinations sows the seeds of corruption and other unethical conduct. The students might continue with these undesirable practices in their adulthood and working life. This negates the whole idea of the universities being the first in providing leadership in curbing this vice which has cost this nation so much.

Recommendation 4.11

a) *Each university should strictly adhere to and enforce examinations rules and regulations and demand compliance by both students and staff.*

b) *Each university should take prompt and severe action on both students and staff who break examination rules and regulations.*

4.5 ACCOMMODATION AND CATERING

4.5.1   The living environment must be conducive for academic pursuits as well as the development of well-rounded graduates trained to fit into local, national and global communities. The Board recognizes the tremendous efforts universities have made towards ensuring the development of accommodation facilities. However, due to rapid expansion, members of the Board observed that students were residing in overcrowded hostels where sometimes rooms meant for two were occupied by four. Further, the Board observed that where new hostels were being constructed, the rooms were too small to accommodate two students. In addition, some rooms have poor lighting and inadequate space for studying. Such spaces do not provide for relaxation, sleeping and reading. Another factor that is impacting negatively on students' living conditions is the rampant practice of cooking in hostels. Cooking also puts hostels at the danger of fire outbreaks. In our view, this is a disaster waiting to happen. This is not to mention the high electricity bills arising from cooking in the halls.

4.5.2   The Board was also informed that students who stay outside the campuses live in deplorable conditions as they cannot afford rent for better housing. Board members appreciated the efforts of some private universities which have collaborated with private developers to provide secure, affordable and comfortable hostels. Suggestions have

been made that students' accommodation should be de-linked from the core functions of university. However, even where private providers are invited into partnership with the universities for the provision of accommodation, each institution would still have to set minimum standards and ensure compliance.

4.5.3   The Board observed that public universities do not have accommodation facilities for married students as it is assumed that all students joining these institutions have no families. However, it is a fact of life that some students get into the family way and have either to decline taking up the places in the university, terminate their studies or temporarily withdraw from the university in order to shoulder family responsibilities. Any future development of accommodation facilities should take into consideration the needs of these and other students with special needs.

4.5.4   In some institutions, the Board observed low standards of cleanliness as well as poorly maintained grounds and buildings. Part of students' learning and training should be to inculcate certain standards of cleanliness as well as a culture of maintenance and environmental care. This is in contrast to the situation in all the private universities that the Board visited, where buildings and grounds are well-maintained and each member of the university community has the obligation to maintain a neat and tidy environment. The Board notes that the involvement of students in the daily running of the accommodation facilities by performing duties such as assisting in the kitchens, cleaning, serving as custodians or janitors may give them a sense of ownership and responsibility. This could also be a source of income for students. Such services by students could be incorporated within the work study programmes.

Recommendation 4.12

Public universities should privatize the management their accommodation facilities and partner with private developers/entrepreneurs to provide appropriate, affordable and secure accommodation to all categories of students within set standards. This should take into consideration needs of married students and students with special needs.

Recommendation 4.13

Public universities should ensure that accommodation facilities and grounds are maintained to acceptable standards of health and cleanliness.

Recommendation 4.14

The government, universities and other stakeholders should collaborate in putting up infrastructure such as street lights and roads so as to improve quality of life including enhancement of security for students and the community.

4.6   HEALTH AND SAFETY

4.6.1   The importance of good health for students and the community in general cannot be over-emphasized. Currently, the universities do provide some health services to staff and students while others have hospitals serving both students and staff. Yet others use infirmaries/clinics and only refer more serious cases to hospitals. The expenditure on student health is usually catered for through contributions factored in the fees. These resources are able to cover ordinary ailments while complicated/serious cases need support from households and may become a heavy burden especially for the poor.

4.6.2   The Board observes that such high cost can be mitigated by having insurance cover for all students. However, the Board observes that the insurance premiums might not be individually affordable to students

and universities need to pursue possibilities for pool insurance cover. The Board notes that some universities abroad faced with unaffordable premiums by private sector have pooled their resources and established their own insurance companies for students and faculty with lower premiums than those provided in the market place.

4.6.3   Through visits to the public universities, the Board observed that most of the facilities in the institutions lack adequate safety mechanisms such as fire alarms, emergency exits, and fire extinguishers and designated assembly points. The Board noted that where emergency exits are available, they are not accessible as they are either sealed or blocked by broken furniture or not in working condition. Essential equipment such as fire extinguishers is not regularly checked to ensure their functioning. It was also noted that safety measures such as fire drills are not conducted as required. The Board noted that policies and regulations for disaster management are largely absent in the universities.

Recommendation 4.15

Universities should formulate policies and regulations for disaster management and ensure periodic inspection of safety equipment and alertness among students and staff.

4.6.4   The Board appreciates that HIV/AIDS policies and units are in place in the universities. There is need for more support for the infected and affected persons in the universities. The Board also notes that there is need to take care of students who suffer from chronic diseases. Universities should also have mechanisms for surveillance and reporting of communicable diseases and maintain appropriate health statistics. Above all, universities should at all times encourage preventive care and, in particular, universities should emphasize the

need for the students to take responsibility for their own health and safety.

Recommendation 4.16

    a)   *The existing health facilities such as the hospitals, sick bays and health clinics within universities need to be strengthened and upgraded.*

    b)   *Universities should explore, in partnership with private sector, possibilities for pooled insurance medical cover for students and joint procurement of drugs.*

    c)   *Every public university should comply with the national and international standards for health and safety for all.*

    d)   *All universities should be required by law to maintain statistics on occurrences relating to health and safety on campus and immediate environment.*

4.7 ALCOHOL AND DRUG ABUSE

4.7.1   Both students and faculty reported that there were substantial cases of alcohol and drug abuse in public universities. The problem of alcohol and drug abuse starts at the secondary level. Apart from damaging health, alcohol and drug abuse interfere with students' learning capacity and can lead to serious anti-social behaviour and even dropping out of the university. In addition there are also negative social and economic implications of substance abuse. For instance, a lot of resources are being utilized to stop drug trafficking, usage and its related problems.

4.7.2   The Board observed that universities do not have strong counselling services that could offer preventive education and proactive counselling to assist students who are already enslaved by alcohol and drugs. Some students also complained of lack of confidentiality in

counselling and viewed it with suspicion and low esteem. They referred to the process as "panel beating" highlighting the "reactive corrective" nature of the process. The Board notes that substance abuse not only interferes with a student's academic development, but can have adverse effects even after one has left the university. Those who become addicts to alcohol and drugs cannot hold jobs or nurture strong families. One public university has set up alcoholics anonymous programmes. The Board recognizes that some universities have declared their institutions as smoking and alcohol-free environment, while others have declared some facilities ''No smoking zones''.

Recommendation 4.17

a) *Public universities should set up effective counselling units for prevention, education and rehabilitation.*

b) *Universities should also declare themselves as regards prohibited drugs, alcohol and smoking free environments.*

4.8 SEXUAL HARASSMENT

4.8.1   In all the public institutions visited, students complained of sexual harassment by both faculty and fellow students. Some male students also corroborated these reports. Students reported that some male lecturers awarded high marks to female students who would otherwise have failed in exchange for sexual favours as pointed out earlier. Some of the universities have had to deal with cases of sexual harassment. These kinds of situations compromise serious scholarship, and discredit the whole institution where even "honest" students' results could be cast in doubt. The Board notes that sexual harassment can also involve management and faculty leading to abuse of office by both genders; some students can also manipulate and harass lecturers. The Board observed that in some of the institutions, there were no sexual harassment policies which define proper conduct between female and

male students and faculty, the reporting procedures when and if harassment occurs, and the disciplinary action to be taken against the culprits. The Board further received presentations that often management tries to cover up incidences of sexual harassment in order to safeguard the image of the institution.

Recommendation 4.18

Universities without policies and systems of dealing with cases of sexual harassment should, as a matter of urgency, develop them in partnership with stakeholders for implementation by 2006/2007 academic year.

4.9 SPORTS AND RECREATION

4.9.1 Recreation is an integral part of good health. The Board appreciates that some students in the universities have participated and some cases excelled in sports. This has occurred at the inter-university competitions both at national and regional levels. The Board further notes that Kenyatta University has been offering sports and recreation programmes at undergraduate and postgraduate levels. However, this needs to be expanded to include other universities and in particular Moi University should take this up as its niche. The place to raise a generation appreciative of the importance of sports and recreation is the university. However, this can only be sustained through proper and adequate facilities as well as a tradition of inter house/inter-college and university games. Facilities should, therefore, be provided for indoor as well as outdoor games. The Board members were informed that recreation facilities in most public universities are inadequate and, the few that are available are in a poor state. The Board was further informed that both faculty and students viewed sports as peripheral activities that did not need their attention. Kenya is a great sporting country, and the universities should be able to enhance sporting activities through provision of adequate funding to improve the facilities

by employing qualified games tutors and providing scholarships to outstanding/talented students. Universities should also encourage their students to take sports and games as part of healthy and holistic academic life.

4.9.2   The Board was also informed that many students who had shown special talents do not seem to be interested in sports at the universities and as a result, many of talented sports persons who represent the country in international events come from the parastatals and the armed forces. The rigour of studies at the university level might be impacting on the ability of such students to continue to nurture their talents. There might be need, therefore, to make special supportive arrangements for such students such as individual time tabling to allow time for training and competition. Universities can also initiate sports scholarships for outstanding athletes. Such students should meet the minimum entry qualifications and academic standards set by the university.

4.9.3   Student centres are also important relaxation facilities that can keep students usefully engaged. These centres should be equipped with indoor games such as darts; pool tables; table tennis just to mention a few. They should also have television, and internet facilities. To enhance student and management partnerships, these facilities should be jointly run by both the various student bodies and management.

Recommendation 4.19

a)   *Each University should draw up a recreation policy including capacity building and provide adequate budgetary allocation for it.*

b)   *Universities should ensure the provision of adequate recreation facilities either by establishing their own or through partnerships with other institutions.*

c) *Qualified sports/games tutors should be employed by the universities to manage the sports departments and related facilities.*

d) *Universities should aim to be centres of excellence in sports through specific training programmes, scholarship and investment in equipment by pooling resources.*

e) *Moi and Kenyatta Universities should spearhead sports programmes in the country in collaboration with the faculties of education and medicine.*

4.10 CELEBRATION OF CULTURAL DIVERSITY

4.10.1 The Board notes that appreciation, respect and tolerance of others' cultural practices and shared history enhance understanding and unity between different people. Ethnic suspicions and fear have in many African societies resulted in conflicts and undermined social cohesion and national unity. The Board also notes that culture is dynamic and is often enriched by ideas and practices borrowed from other people's cultures. However, with emerging trends of globalization, there is danger that our youth might lose the positive and embrace the negative aspects of other cultures especially the Western.

4.10.2 Public universities, as national institutions are melting pots as they admit students from every part of the country. A university, therefore, should provide opportunities for dialogue, experience, tolerance, affirmation and celebration of the rich diversity of the various cultures. This diversity of origin and type should be a source of strength rather than a cause for division. The cumulative result of such enrichment should be the celebration and strengthening of national identity, human dignity and international understanding. In this regard, the Board notes that Kenyatta and Moi universities have institutionalized celebration of strong cultural tradition while other institutions there some cultural activities such as good choirs.

4.10.3   The Board noted that in addition to students' membership to cultural and professional associations they also gravitate towards district associations. These organizations have sometimes been used for mobilization of funds for needy secondary and university students. These associations have also been used to volunteer for community service programmes. However, the Board notes that such associations are sometimes misused and abused for political reasons within and outside the institutions. In our view, such associations can be used in future, to lobby for good governance and equitable allocation of resources such as CDF as well as in assisting in orientation and arranging of cultural days. The roles of these organizations could further be enhanced if they were elevated to student organizations with mandates to foster unity in diversity. However, such forums should be guarded against selfish sectarian and political manipulation and abuse.

Recommendation 4.20

   c)   *Universities should facilitate cultural activities by supporting cultural days and performing arts competitions at national and international levels.*

   d)   *Universities should introduce cultural programmes as common foundational units and invest in cultural events.*

4.11 STUDENTS WITH SPECIAL NEEDS

4.11.1   The Board was made aware that the welfare of students with special needs has not received sufficient attention in the past and would, therefore like to appreciate efforts of public and private universities which have tried to cope with a number of disabled students under very difficult circumstances. A survey commissioned by the Board on students with special needs revealed that:

   •   There is lack of special needs policy;

- Special needs students find it difficult to access university education and;

- Equipment and physical facilities are unsuitable for those with special needs.

4.11.2 The special needs students ought to be provided with the requisite sports and recreation facilities. Further, the Board suggests that public universities should establish a fund to support students with special needs, appoint an officer to investigate and document the status of such students and make recommendations to a body responsible for this function in each university.

4.11.3 Special needs students are those students who have visual, hearing, mental and physical impairments. The Board notes that these categories represent only the major areas of impairment and do not include other disabilities such as dyslexia, chronic illness like asthma, sickle cell anemia, epilepsy, albinism and HIV/AIDS, all of which do impact adversely on the learning abilities of students.

Recommendation 4.21
   a) *Public universities should source for funding to increase access and completion rate of students with special needs.*
   b) *Each university should ensure that its facilities are user friendly for all students with special needs.*

4.12 STUDENT LEADERSHIP

4.12.1 The Board interactions with the students and submissions made demonstrated that currently there is a vigorous student leadership in the universities. Student leaders have immense responsibilities placed on them by their colleagues. Much is also expected from them by the society. The student leaders act as a bridge between faculty,

management, society and the student body. They also manage all students' union funds. There are also other students who provide leadership in various clubs and associations. Some student leaders however complained that management never included them in the decision-making processes even when such decisions directly affected them such as fees increases and change of semester calendar dates. In some instances, there were complaints that sometimes management interfered with students' union elections so as to have pro-management students elected. There were also reports of management tampering with minutes and distorting student leader's views on sensitive matters. The Board also observed that most of student leaders had not received any training to enhance their leadership and governance skills. There is need to train student leaders to discharge their responsibilities effectively, manage their affairs in a transparent and accountable manner, and to nurture and strengthen student representation in various organs of the universities. Such training will empower students with skills to mobilize funds through conferences, news letters and proposal writing for grants. These skills once learnt would also serve them well in workplaces.

Recommendation 4.22

a) *Student leaders should be offered training in governance, and management and conflict resolution to assist them in discharging their responsibilities effectively.*

b) *The University management should give the necessary support to student leaders to facilitate their work.*

c) *Student leaders should be included in the decision-making processes where it is appropriate.*

d)   *Public universities should be required to have a leadership training center to train student leaders and any other student on leadership skills; communication and decision-making skills, negotiation skills, writing and public speaking.*

e)   *CHE should organize student leadership training programmes for student leaders from both public and private universities.*

4.13 MECHANISMS FOR DIALOGUE AND CONFLICT RESOLUTION

4.13.1   For many years, public universities have been rocked by students' strikes and unrests that have at times resulted in loss of life, injuries, damage to institutional as well as private property. These riots have led to poor image of students and the public universities. Students' unrest and strikes that lead to closure are also costly in terms of time and resources lost for both students and staff. The latter have to be paid even though no teaching takes place during the strike period or closure of the institution. Submissions made to the Board indicated that some employers preferred graduates from private universities as they had no record of hooliganisms that are often associated with strikes and students' unrests in public universities. Student leaders who made presentations to the Board said some of the reasons why students went on the rampage included poor communication, lack of respect and action on some of their views and outside interference. The Students cited examples where managements had ignored complaints or gone ahead to implement some major reforms without consultations or informing the student body.

4.13.2   Submissions made by students are indicative of systems of governance without effective free and open mechanisms and opportunities for dialogue and conflict resolution. There were cases where students were afraid of speaking out because they feared that

they would be victimized by being deliberately failed in their examinations. One student said:

There is no way I am going to report that so and so comes late or that he does not know how to teach, - if he identifies my number during the marking of examination scripts he will fail me.

Students also reported that they were frustrated when they were referred to numerous officers whenever they had problems. Policies should provide for clear channels of communication, giving guidance of who carries what responsibility and where complaints to be made. The fact that some lecturers' do not attend classes, fail to cover the required coursework and other unethical behaviour go on unchecked, points to a system whereby students' complaints are not given adequate attention. A climate of conflict, leading to strikes and student unrest, does not provide an environment conducive to teaching, studying and scholarship. The Board equally notes that violence is neither conducive nor is it the best way of resolving conflicts. Dialogue and participatory decision-making will provide better results for ownership of major changes and avenue for conflict resolution.

4.13.3   The management, however, is not solely responsible for good practices in decision-making and conflict resolution. The students too bear a great responsibility for patience and rational mature and sensible behaviour during any crisis. Sometimes students may have a justifiable case for protests. But it is also common knowledge that at other times students have gone on rampage for very flimsy reasons. It has been argued that this sort of behaviour is just but a reflection of the erosion of normal rules of decency and courtesy in society. The Board notes that there are alternative and non-violent mechanisms through which the students could put their points across. The universities should allow space where students can exercise critical dialogue such as student parliament. Students' counsellors should also endeavour to

inculcate a culture of respect and tolerance to diversity of views and positive criticism.

Recommendation 4.23

Public universities should review their existing communication channels and mechanisms to enhance dialogue in order to provide for proactive participation by students in decision-making, resolution of conflicts and in dealing with grievances.

4.14 STUDENTS' CONDUCT AND DISCIPLINE

4.14.1 Currently, public universities admit students through the Joint Admissions Board (JAB), based on an agreed cut-off-point without considering character/background. The Board observes that, some character traits portrayed by university students were acquired long before they joined the universities. Public universities have

> **Admission Policy – Heston College USA**
> Hesston College admits those students who will benefit from the educational environment of the college and who will contribute to the shared life of the campus community. Applicants must be graduates of an accredited high school or its equivalent to be eligible to attend. Admission is granted after careful review of the candidate's academic promise, social character and potential for success at Hesston College, but without regard to sex, race, colour, national origin, religious affiliation, or physical handicap.

no mechanisms of vetting the applicants on the basis of character. However, the Board was informed that some private universities have mechanisms for vetting student character for admission purposes. Some universities, in other countries, do take a student's character into consideration before admission.

Recommendation 4.24

a) *In addition to fulfilling the academic requirements, universities should satisfy themselves that every applicant is of sound character.*

b)   *Admission and exclusion criteria, including character assessment, should be developed by the CHE JAB committee, the universities and other stakeholders. Appeal mechanisms should be developed by the same committee.*

4.14.2   Every human community strives for harmony that is brought about by adherence to norms, morals, culture, ethics and regulations. Students, therefore, should be inspired by the codes of conduct in their home and away from home. In formulating the codes of conduct and regulations for students, considerations should be taken on issues such as democracy, human dignity, justice, responsibility towards society, prevention of a culture of polarization and promotion of solidarity. In other words, there should be the principle of good practice within the student community.

4.14.3   The Board recognizes that discipline is not forced on people but rather internally attained through giving responsibility to them. This should work for students just like for other groups. The Board notes that fair, just and consistent policies also enhance discipline. The Board received representations from students in some universities that disciplinary procedures were arbitrary and unjust. Students complained of severe punishment such as long suspensions or even expulsion for what they termed ''minor'' mistakes. Other reports indicated that sometimes some students were punished more severely than others for the same misconduct. Students also complained of a system that did not give them adequate space to present their own side of the story as well as for appeals. At times disciplinary cases took too long to be resolved, leading to loss of learning time for the affected students.

4.14.4   While students complained about poor performance and unfair treatment by some lecturers, the Board was informed that some of

them engaged in anti-social behaviour. For example, there were reports of some students who regularly missed lectures, failed to prepare properly for their examinations and others who handed in assignments late. In some foreign universities, students who hand in assignments late lose marks for each day they were late. Other cases of irresponsible conduct included vandalizing of property, rowdy and drunken behaviour during students' parties and examination cheating. The Board notes that academic excellence and a fulfilling university life will only result from accountable and responsible behaviour by both students and lecturers and indeed the entire university community.

4.14.5   The process of formulating/updating students' rules and regulations should have a mechanism of involving students as a way of creating ownership and ensuring compliance agreed rules of conduct. It is important that any penalty for non-compliance to the rules should be seen to be fair and just. In addition, there is need to recognize that discipline can also be enhanced by appreciating and rewarding achievement and good behaviour. For example, universities could give prizes for exemplary leadership and community service.

Recommendation 4.25

    a)   *The rules governing students' conduct and discipline should be enforced without fear or favour.*

    b)   *Students' disciplinary regulations need to be reviewed to indicate, among others, minimum period of resolving cases and reporting procedures.*

    c)   *Universities should utilize other stakeholders such as alumni and parents in management of student affairs and conflicts.*

    d)   *Mechanisms should also be put in place to reward exemplary behaviour and conduct.*

3.14 PARENTAL INVOLVEMENT

4.15.1   Parents are important stakeholders of universities as they have a fundamental relationship with and influence on the students. As first teachers, they are the ones who have nurtured their development from birth to the threshold of adulthood as they enter university. At the university, these parents continue to provide both material and emotional support.

4.15.2   Parents comprise a diverse mix of Kenyans from rural farmers to urban professionals. With their wealth of experience and knowledge, parents constitute a strong resource in support of the universities and are highly motivated by the desire to see their children succeed. Therefore, universities should create partnerships through which the parents are kept informed of their children's progress, achievements, welfare and disciplinary problems. Some of the parents can be called upon as key speakers during orientation and special counselling seminars/ workshops and other events.

4.15.3   Universities can also create partnerships with parents so that they are informed of universities' achievements and plans. They can also be called upon to contribute to endowment funds and other financial aids schemes to support any development projects of the university. In one of the private universities visited by the Board, the parents were involved right from orientation period and they were informed of their children's academic progress, and institutional events through regular bulletins and meetings. Parental involvement should, therefore, not be seen as a desire to control "adults" who want to experience and enjoy the freedom from strict secondary school life. Parental role is to offer love, advice and support towards the holistic growth of the students and contribute towards high levels of institutional achievement.

Recommendation 4.26

Universities should facilitate the establishment of active parents' fora where they do not exist.

4.16 STUDENTS' FINANCIAL ADVISORY OFFICE

4.16.1   In view of financial constraints that face needy students, universities ought to create students' financial advisory offices that would provide advice and assistance. These offices would, for example, alert HELB on extreme cases of need, mobilize for and manage scholarships, endowment and bursaries such as those from CDF and other organizations and individuals. The offices could also track the number of students who drop out because of lack of fees with a view to assisting them resume studies. The Board was informed that some local philanthropists such as Rattansi Education Trust have provided substantial assistance to students.   The Board appreciates the establishment of trusts such as J.B. Wanjui Education Trust and hopes that other Kenyans will follow these examples.

Recommendation 4.27

Universities should establish students' financial advisory offices and cultivate local philanthropists to support needy students.

4.17 GOVERNMENT AND SELF-SPONSORED STUDENTS

4.17.1   As has been pointed out earlier, the introduction of self-sponsored programmes has been a timely development that has increased access to university education. However, certain tensions have arisen that need to be addressed. Government-sponsored students complained that their self-sponsored counterparts were given better treatment than themselves.   For example, it was reported that while some lecturers could miss lectures for government-sponsored students, they were available for the self-sponsored students

especially in those programmes where the two groups of students were not integrated. There was also deep resentment towards the self-sponsored students by the government-sponsored ones, with the latter complaining that some of the self-sponsored students did not merit admission to some courses, and that they were only there because their parents could afford to "buy' them admission, through fees. This situation was further compounded by the fact that in some universities, self-sponsored students were taught separately from those supported by the government. The Board further observed that in most public universities, in programmes that were not integrated, there was no flexibility for students to choose the time to attend class; rather, they were presented with a timetable that they had to follow.

4.17.2   The self-sponsored students on their part reported that they felt alienated from regular students who perceived them as "children of the haves" and yet for some of the parents, it was a great struggle to keep them at the universities. The self-sponsored students also complained that they were poorly represented in the student unions and that this meant that their voices were not heard and yet they too had a number of issues that they would want addressed. They also reported that sometimes the government-sponsored students would go on strike on issues that only concerned them, and yet when the universities were closed, they were also forced to go home. As fee-paying students they felt that it was costly for them to lose learning time through strikes. They further complained that despite their sponsors paying a great deal of money, they were offered the same poor facilities/services as the government-sponsored students. From the above submissions, the Board is of the view that universities should not view self-sponsored programmes as a source of revenue but rather, an opportunity to increase access for students who would otherwise have missed university education.

Recommendation 4.28

    b)   All academic programmes should be amalgamated and timetabling done in such a way that all students are admitted, taught and examined as one class.

    b)   To minimize resentments, government support should in the long-term be turned into scholarship and support for the needy.

4.18 SECURITY

4.18.1   Increased crime in urban areas, incidents of riots in universities and events such as the 1998 terrorist bomb blast in Nairobi, and 2002 in Mombasa, have brought the issue of security, especially security of public institutions into sharp focus. Students complained that their institutions did not have adequate security as members of the public could walk in and out of lecture halls and hostels without being challenged by anyone. Indeed, reported incidents of rape, assault and even murder of students within the university premises underscore the need to strengthen security of university premises. The Board observed that while the main gates   into the universities were manned by security officers, other areas of the buildings did not seem to have adequate security personnel and lighting. Further, most of the public institutions have extensive grounds. Such extensive facilities can only be secured through adequate security personnel.

Recommendation 4.29

    a)   Each university should have an effective security policy and in particular provide security for strategic facilities, staff and students.

    b)   Universities should outsource security services from reputable firms. However, consideration should be made for establishment within all universities, of University Community Policing.

    c)   Students and staff should display identification budges while on campus.

4.19 ESSENTIAL LIFE SKILLS

4.19.1   The Board notes that more than ever before today's environment calls for a multiplicity of social skills and competences especially in the work place. A strong work ethic, teamwork, a high sense of integrity and self-esteem, etiquette and excellent communication skills are at the forefront of career progression in many professions. Current situation calls for the kind of holistic development of students that the Board observed in some private universities. The Board was informed that many students arrive at the University without the necessary life skills to make informed decisions about some crucial areas of their lives.

4.19.2   The Board was, for example, informed that some students do not know how to handle large amounts of money that they receive when they arrive on campus. Many spend it unwisely on alcohol, music systems and mobile phones even when it is needed for their maintenance and textbooks. Many are also poor at time management, and coping with traumatic experiences such as failed relationships, death of loved ones, examination, failure and serious illness. As a result, a few cases of assault and even suicide have been reported in some institutions.

4.19.3   The Board observed that many of the private universities have strong counselling departments where the ethic of "I am my brother's/sister's keeper" is part and parcel of the institutional tradition. The Board noted that in such institutions, a wide variety of university officials ranging from faculty, deans, wardens, chaplains and student leaders are also utilized to offer support to students. Students were also utilized through peer counselling. The Board has also observed that the newly developed strategic plans of the public universities have articulated the need for strong, proactive, counselling departments. Such counselling must endeavour to inculcate strong work ethics, teamwork, self-esteem and other social skills necessary for holistic

development. These life skills should also include; preparation of curriculum vitae, cover letters, networking, appropriate conduct in interviews and internet and other search skills. With regard to their age bracket, the Board was referred to the following quotation:

''university students are too young to be set absolutely free, and too old to be closely supervised' (anonymous).

A balance has, therefore, to be maintained between, individual freedom and responsibility. The Board notes that life skills imparted in the university can be of immense help to the students not only during the university period but also for the rest of their lives.

Recommendation 4.30

Each university should have a strong student support and counseling centre, providing counselling services and imparting essential life skills.

4.20 WORK STUDY PROGRAMMES

4.20.1   Work study programmes expose students to the world of work, inculcate strong work ethics and also assist needy students to pay for their university education. Work study programmes assist students to gain research, time and resource management skills. The Board observed that while there was strong work study programmes in some of the private universities, this was not the case for the public universities.   The universities have wide opportunities for students work in research departments, libraries, and in hostels where willing students can be offered some work, with reasonable pay. Such opportunities should be advertised within the university and recruitment done in a fair and transparent manner.

Recommendation 4.31

All public universities should establish work study programmes and strengthen them where they exist.

4.21 PREPARATION FOR CAREER / PROFESSIONAL DEVELOPMENT

4.21.1   University education includes preparing the students to lead rewarding and fulfilling lives. For this reason, university education must have an in-built structure that prepares students for career/professional development in the modern workplace. The Board observed that relevant offices within the public universities need to play a greater role through effective career counselling and events where various professionals are invited to talk to students. Full-time career placement centres as those found in universities in Europe and North America seem to be very effective and local universities could emulate some of their practices. Such career centres would provide counselling and assessment, assist students in making career decisions, exploring possible career opportunities, and coordinating job placement services – for temporary, transitional and permanent employment.

Recommendation 4.32

Public universities should establish career/placement development centres to provide mentoring and advice to students entering the world of work.

4.22 INTERNSHIPS

4.22.1   The Board was informed, by students of public universities, that they found internships stressful as sometimes it took a long time for them to find an organization or employer willing to accept them for internships. Some students also complained of poor support by the relevant lecturers during internships. On the other hand, it was reported that some organizations had complained that some universities did not

have a systematic way of internship placement, with diverse requests being made at different times. As these organizations have their own systems, it becomes difficult to accommodate such *ad hoc* requests for students' internships.

4.22.2   The Board noted that some of the private universities had internship officers and policies which assisted students to find placements in appropriate organizations and ensured that concerned lecturers did effective follow-up and supervision.   Alumni of the universities also assist in finding placements. The Board suggests that public universities need to institutionalize and brand their alumni through defining them by the year of graduation e.g. Class of 2005. In so doing the universities will inspire and strengthen the resolve of the alumni to support various university activities including students' internship. The Board notes that internships are requisite mechanisms for providing students with hands-on experience in a real work situation as well as for providing prospective employers with the chance to evaluate the kind of graduates they can expect from the particular institution. It further notes that some of what is taught in the public universities is more of theory and lacks the practical aspect of what happens in industry as lecturers are not exposed to practical situations and hence are not able to relate theory with practice. Internship programmes can be strengthened through formal and non-formal networking, memorandum of understanding between private firms, government and universities utilizing both formal and informal sectors and establishing and maintaining a database.

Recommendation 4.33

    a)   *Each university should have an internship policy.*

    b)   *Public universities and alumni associations should create strong networks that can be utilized for students' internship including students with special needs and employment placement.*

    c)   *Internships required for degree work should be completed before graduation.*

4.23 EMPLOYMENT

4.23.1   The government used to be the largest employer of new graduates. However, due to poor performance in the economy and the structural adjustment policies of the early eighties, the government instituted a freeze in recruitment of fresh graduates into the Civil Service. The Teachers Service Commission which had also been offering direct employment to the Bachelor of Education graduates has stopped doing so. Indeed, it has been often observed that to some graduands, the graduation day is not a time of celebration and joy but rather, a day full of anxiety and a sense of hopelessness as such graduands know that they will have nothing to show for the long years of learning in terms of meaningful employment. Cases of graduates being self-employed as *boda/boda* cyclists and *matatu* drivers have been reported. The Board notes that return on government's investments in education can only be realized if the products end in gainful employment that match their skills.

4.23.2   In addition, lack of employment for graduates is stressful and traumatic and is viewed as a great loss to the families who invest heavily in educating their children up to this level. The Board notes with appreciation that some private universities had employment placement offices as well as strong alumni networks that assist their students get employed. These internal networks would assist students get jobs

through 'volunteerism' which will expose them to the world of work. These also need to be systematically organized. As pointed out in chapter six, there is need for government database on unemployment, employment opportunities and skills areas that need trained personnel. Voluntary services with some organizations have sometimes led to full-time employment, yet many students prefer to remain idle rather than offer their services to such organizations e.g. children's homes, schools, hospitals, refugee camps. The Board also notes that the country's economy is improving and hopes that this will lead to more job openings for graduates. In view of Kenya's relative regional advantage in production of graduates within the East African region, the Board notes that Kenya has provided graduate teachers as well as other professionals to other countries.

Recommendation 4.34

    a)   *Public universities should establish employment placement offices and collaborate closely with government, Alumni, NGO's and the private sector.*

    b)   *Students should be encouraged to take up voluntary services before, during and after their university studies.*

4.24 POSTGRADUATE STUDENTS

4.24.1   Any university that wishes to strengthen its capacity and quality of teaching, research and contribution to the development of high level human capital in society, needs to mount credible postgraduate training programmes. This is because postgraduate training provides the universities themselves with a pool of qualified staff that are necessary for replacing those retiring or learning for other reasons.

4.24.2   In spite of this important role of postgraduate training, the Board was informed that the current post-graduate programmes are poorly

managed and that supervision is weak or non-existent and in many respects, frustrated rather than motivated graduate students. Masters and Ph.D programmes in our public universities take longer than in other universities.   Hence those who eventually complete their graduate studies are hardly inclined to return to university for teaching and research careers. The Board was further informed that some students preferred foreign universities where they complete their postgraduate studies in time. As the postgraduate students are not members of the students union, they should be facilitated to have their own postgraduate students associations where they do not exist.

4.24.3   The Board noted that postgraduate students are also not eligible for a second loan from HELB as they are required to have completed paying their undergraduate loans first. This has led to students leaving the country to study abroad, and thus the country loses talents to other countries especially the USA and Europe.

Recommendation 4.35

Universities that have postgraduate programmes should pay serious attention to the needs of the graduate students in terms of:-

- *Accommodation and learning facilities;*
- *Research funding for Master and Ph.D theses;*
- *Scholarships, and in particular for women, in areas of national priorities;*
- *Mentoring and apprenticeship arrangements to allow learning from scholarly examples and from those professors who have been successful;*
- *Ensuring timely and effective supervision;*
- *Clear timetable for starting and completion of Masters and Ph.D programmes in various departments and faculties;*

- *Providing special attention/facilitation to graduate students from outside the country;*

- *HELB should extend Loan facilities to qualifying postgraduate students who may not have completed paying their undergraduate loans.*

4.25   CONCLUSION

4.25.1   University education should be a rewarding and enjoyable period of physical, intellectual, emotional, and spiritual growth that produce a creative and well-socialized individual who is at peace with both himself/herself and the society; a truly educated person – cultured, well-read, continually learning, intellectually curious and as well as tolerant accepting and appreciative of other cultures. Effective student welfare services as outlined above can play a major part in the production of the 21st century university graduate (see also Chapter. Six)

CHAPTER FIVE

TEACHING AND NON-TEACHING STAFF WELFARE AND DISCIPLINE

5.1   INTRODUCTION

5.1.1   This chapter examines the current staffing levels, policies and practices in public universities in the context of the above key issues and makes recommendations on how they can be improved. Such improvements will provide the universities with qualified workforce composed of creative, proactive and skilled personnel whose contribution is appreciated and valued. Such appreciation will be reflected in adequate financial compensation and other incentives that encourage and inspire individuals to do their best and be proud to be associated and belong to the institutions. The analysis in this chapter is anchored on the environmental context defined by the challenges, strengths, weaknesses and threats in which members of staff currently operate.

5.1.2   The true wealth of any nation is its human resources, and the worth of any organization is its workforce. Indeed, the fast development of some great economies such as those in Asia, Europe and North America have been tied to the quality and efficiency of their human resource whose hallmark has been high levels of education coupled with a strong work ethics.

5.1.3   National universities in Kenya possess one of the most highly educated and intellectually rich human resources in the country. Currently, there are 4650 academic staff and 9400 non-teaching administrative and support staff in public universities. This group of staff is charged with the crucial task of nurturing and developing the

national human capital required to provide the necessary skills and competencies to leapfrog the country's economy so that it can compete with those of developed countries.

5.1.4   It has often been said that teaching is a calling and a vocation. In this regard, persons choosing to teach at the university must have a passion for imparting knowledge and for nurturing young people so that they develop fully their abilities, talents and functional skills. As such, lecturers should inspire their students to have a desire for life-long learning. Furthermore, as prime movers of social transformation, knowledge and skills must be given the requisite attention.

5.1.5   Academic and most of senior administrative and technical staff in national universities are generally highly educated. However, their capacity to carry out their mandate effectively and their recognition as essential assets to society and world class institutions depend on their training, experience, commitment and quality of their productivity. Specific mechanisms must therefore be put in place to address the wellbeing of university staff, to ensure their motivation, retention and productivity. Terms of service and other conditions of work must be designed to assure result oriented performance from the staff.

> The scientific management (stomach) paradigm says, "Pay me well". The human relations (heart) paradigm says, "treat me well". The human resource paradigm (mind) suggests, "use me well". The principle centred leadership (whole person) says, "let us talk about vision and mission, roles and goals. I want to make a meaningful contribution." Covey, 1990

5.1.6   Members of staff in public universities have over the years served under difficult circumstances such as political interferences, poor remuneration and challenging working conditions including frequent student strikes/unrests. Staff should, therefore, be commended for the innovative and significant achievements

accumulated under difficult circumstances. For example, most university staff have remained patriotic (choosing to serve locally and eschewing the greener pastures syndrome), sourced for funds and scholarships for postgraduate students and acquired equipment and textbooks for their respective institutions. They have also carried out research in spite of limited funding and made some breakthroughs such as plant tissue culture (JKUAT), HIV/AIDS vaccine research (UoN) and the development of a waste management process (Moi University).

5.1.7 In addition to academic responsibilities, most professors and lecturers also serve their communities through membership in school boards, NGOs, and community based organizations. Other lecturers have been recruited to serve in some critical sectors of public service such as agriculture, education and health. Another significant achievement is that university management and staff have on their own initiatives embarked on far-reaching reforms, most of which have been articulated in the universities' strategic plans thus underscoring their commitment to modern planning and management practices.

5.1.8 Quality workforce is central to the successful realization of the universities' vision, mission and mandates. To have in place quality staff that can make meaningful contribution, certain supportive incentives and measures need to be put in place. These include better remuneration, conducive working environment (facilities, values, culture), and support for intellectual growth through staff development, fair treatment and respect for one's ideas and appreciation for one's input.

5.2   THE CHALLENGES OF STAFFING

1.2.1   Universities in Kenya have limited number of qualified staff in some critical programmes such as ICT and Engineering. This lack of qualified staff is accelerated by the rapid growth in private institutions, which leads to academic moonlighting by some of the lecturers in public universities.

1.2.2   The Board was informed that in instances where there are inadequate numbers of staff, they often display poor work ethics such as absenteeism, use of out dated class notes, limited research outputs, and unethical management and processing of examinations. A number of lecturers were said to lack pedagogical skills, which leads to lack of clarity in instruction. There are also poor communication channels within the universities.

1.2.3   Public universities are challenged to recruit and retain competent staff, and provide a conducive working environment but they cannot due to the declining funding from government (see Chapter 7 on resource mobilization). Furthermore, there is increased regional and international competition for qualified university staff, which leads to brain drain and loss of some of the most highly qualified staff. In addition to this, the age profile of university lecturers reflects an increasingly high population of aged academic staff, revealing an inadequate succession planning. This situation is compounded by the potential for insecurity within campus during student disturbances, and the threat of high attrition rate of qualified staff due to HIV/AIDS pandemic which constrains universities from attracting and retaining quality staff.

1.2.4   Most academic staff members have continued to serve faithfully in spite of the many challenges which they face. These challenges have in the past included:

    i)   Low and uncompetitive remuneration and benefits;

    ii)   Large class sizes arising from expanded access through the self-sponsored programmes;

    iii)   Inadequate tuition and research facilities,   diminishing availability of the tools of the trade, poor offices and ICT facilities;

    iv)   Limited research funds;

    v)   Lack of institutional and national recognition and award systems;

    vi)   The slow pace the universities are taking in embracing new ideas and processes such as utilization of ICT and innovative managerial practices;

    vii)   Limited opportunities to use their skills, knowledge and social standing to articulate   opinions on important national issues such as voting patterns and practices, the constitution making and corruption. This may arise from the fear of perceived political reprisals encountered in previous political regimes;

    viii)   The challenges of operating above the tribal paradigm, while at the same time reaffirming and celebrating one's cultural background and identity.

5.2.5   Most of the above challenges are dealt with in detail in this chapter and in other sections of this report. The universities' strategic plans have also addressed some of the above challenges. In spite of the staffing challenges and the related threats which Kenyan universities face, there are many opportunities which the universities can take advantage of and improve on their human resource base.

5.2.6   These opportunities include the growing demand for higher education in Kenya requiring more staff to be engaged while those in employment will need to upgrade their knowledge and skills to meet the challenges of the rapidly changing work environment. Opportunities in ICT and new delivery mechanisms encompassing open learning and distance education will continue to expand more rapidly requiring systematic staff development and recruitment.

5.2.7   The actualization of reforms and new practices such as competitive recruitment, establishment of alumni associations and increased linkages with industry and the private sector opens up new opportunities for attracting and engaging .additional academic staff. University linkages with the productive sector of the economy also open up opportunities for research, collaboration and consultancy services and production of quality graduates.

5.3.   TERMS AND CONDITIONS OF SERVICE

5.3.1 Working conditions

a)   Physical Facilities

5.3.1.1 To ensure staff satisfaction and effective utilization of the available human resources for increased productivity, working environment and conditions of service must be conducive and attractive. The Board was informed that public universities have been operating without proper policies, procedures and plans to guide them on the required facilities for effective teaching and research. As a result, facilities have deteriorated over the years due to overuse and without the requisite resources and strategies for continuous maintenance. In many institutions, increase in student enrolments has not been accompanied by expansion of facilities or acquisition of additional equipment.

5.3.1.2   The public perceive this situation as a reflection of the country's lack of appreciation of the enormous contribution that the university community makes to national development. Hence, there is urgent need to address the working environment under which staff members are expected to discharge their teaching, research and service obligations. Unfortunately, this has not been viewed as a priority over the last thirty years, resulting in low budgetary allocation for resources to improve the working conditions of staff. This has, in turn, generated the low morale and wavering commitment that is evident among some staff in the public universities. It may also have contributed to moonlighting and brain drain.

b)   Staff Offices

5.3.1.3   There is limited office space for both teaching and non-teaching staff in all public universities. In some universities up to three teaching members of the teaching staff share one office; while in other situations teaching staff operate from their homes as they have no offices. Furthermore, some of the available offices have no appropriate furniture and office equipment such as computers, printers, photocopiers, telephone, power outlets, and internet facilities because they were not designed as offices initially.

5.3.1.4   Lack of office space, furniture and office equipment such as computers has impacted negatively on staff capacities to adequately prepare for their teaching responsibilities, supervision of students, and to interact with other staff. In many respects, this has affected quality of teaching, student mentoring and research output. There is need, therefore, to offer recreation facilities for staff in public universities to address stress-related challenges and other health issues.

c) Stalled Projects

5.3.1.5 Completion of stalled projects in public universities especially those that will strengthen the science physical infrastructure will enhance the capacities of various universities in science and technology and working conditions for staff. The Board commends the universities of Nairobi, Maseno, Egerton and JKUAT for the investments they have made to complete some stalled projects from internally generated funds. This will enable them to use their time, training and knowledge to enhance teaching, learning and research.

Recommendation 5.1

Public universities should strategize on how to improve the working conditions of staff.

Recommendation 5.2

Members of staff of public universities should be provided with appropriately equipped offices [with working telephones, computers (hard and software) and internet connectivity]. All staff offices should comply with the standards that have been developed by CHE.

d) Tuition Facilities

5.3.1.6 The increase in student enrolment has put a lot of strain on the limited lecture rooms and theatres. As a result, some students were noted to listen to their lecturers through windows of lecture rooms and theatres. Most lecture rooms and theatres have no facilities such as loud speakers for large classes, LCD projectors, power outlets and adequate furniture to support efficient and effective teaching. In some instances seminar rooms are inadequate and are not equipped with the necessary facilities as outlined above.

5.3.1.7   Some of the laboratory equipment need urgent upgrading as many are outdated and obsolete. This compromises the quality of teaching and acquisition of practical skills which are essential in fields such as science, engineering and technology disciplines. Whereas teaching staff are expected to conduct research particularly in science and technology fields, their efforts are hindered by lack of up-to-date research equipment. The Board noted that the potential of computer-based technologies in teaching, training and research has hardly been exploited.

Recommendation 5.3

The provision of teaching facilities such as lecture halls, seminar rooms and laboratories equipped with adequate infrastructure should be seen as a priority in improving the working conditions of staff and as a means of improving the quality of education in the universities.

5.3.1.8   Due to lack of equipment in their institutions, some students have been forced to do their laboratory practical work in other universities. This is inconvenient and discourages both students and lecturers.

Recommendation 5.4

Universities should allocate adequate budgetary support to purchase modern equipment; upgrade and repair broken down equipment and continuously maintain laboratory equipment to enable teaching staff to conduct research.

Recommendation 5.5

Where laboratory equipment is extremely expensive, mechanisms should be explored for joint procurement, use, and management of such equipment by institutions. However, clear guidelines need to be developed on issues such as the location, management, maintenance and replacement of shared equipment.

e) Library Resources

5.3.1.9 The stock and quality of library materials in public universities were reported as outdated, the ratios of books and journal subscriptions for use by readers/students are extremely low and limited to serve the increased number of students. The Board notes that some of the public university libraries do not meet the minimum benchmark ratio of 60 titles per student per degree programme (five titles per unit). The Board further notes that the current level of library resources that are less than 10 years old in the universities is as follows:

- Ten per cent is current for public universities
- Between fifty and seventy for private universities except Daystar University with ten per cent and Kiriri Women University whose collection is inadequate.

The better performance of private universities libraries could be attributed to the regular inspection and evaluation done by CHE. Generally, there is lack of weeding policies for irrelevant stock and volumes in the universities which gives a false picture of stock size and quality.

5.3.1.10 There is no mechanism in public universities for sharing available library materials in their respective libraries and other institutions of higher learning, research institutions and private universities. Although digital libraries provide staff and students with quality, current and relevant information resources and enable them to share resources

and thus cutting down on costs of duplicating, public universities cannot fully utilize them due to inadequate internet facilities.

5.3.1.11 The Board notes that libraries in public universities operate on not more than four per cent of institutional recurrent budget while those in private universities are operating at between five to nine per cent.

5.3.1.12 Public university libraries are hampered by stringent procurement procedures for books and journals. The Board noted that even where some money allocated in some instances it was not spent due to the slow process of tendering, quotations and other procurement requirements. The above problem is compounded by the fact that books often run out of stock, out of print and change prices at least twice a year. It should also be noted that journal subscriptions both in print and electronic forms require pre-payment which cannot be affected due to procurement procedures. The Board has recommended in Chapter Eight that public universities should not under State Corporation Act which inhibits the universities to establish their own procurement procedures to meet their needs.

5.3.1.13 The Board notes that access to information resources in the libraries that were surveyed established that:
- While automation is taking place at varying paces, many libraries still have manual systems for some of their operations and this limits the speed and accuracy in accessing information;
- Low budgets hamper the development of adequate ICT infrastructure and other facilities for easy access to learning resources;
- There is still little inter-library lending as part of resource-sharing because of limited materials and logistics across distances;

- Most libraries do not run library user education programmes and lack support bibliographic resources;

- Generally, signposting in libraries is poor and does not readily enable quick and easy access to various sections and services;

- Existing library policies do not explicitly expound the concept of centrality of library user. Hence library staff dot not exhibit customer friendly approach to the users and often do not market library services to the public.

5.3.1.14 Jomo Kenyatta Memorial Library, the main library of the University of Nairobi can hold 5 million volumes, but actually has less than fifty percent of that capacity. The Board was informed that many of the books are outdated and the more recent publications and journals are not available. The increasing number of students leads to competition for the relatively few books and reading spaces available. Departmental libraries are also over-subscribed. Most of the libraries are congested especially towards and during examination times. This was observed in nearly all public universities. As such the facilities are not catering for the needs of the academic staff and students. The library holdings and budget for local universities are summarized in Table 5.1

Table 5.1 Public and Private Universities Library Stock, Annual Budget, ICT Status and Sitting Capacity

University	Stock	Annual Budget 2004/2005	ICT Status	Sitting capacity
Africa Nazarene University	40,000 Volumes 56 Journals	Kshs. 7,247,200	Automated with on-line catalogue	400
University of Nairobi	5,00,000 Volumes	Not Stated	On-line catalogue	1,330
Aga Khan University	3,500 Volumes	Kshs.1,400,000	Issue system – manual	50
Eastern Africa University-Baraton	56,000 Volumes 320 Journals	Kshs. 55,000	Internet access	484
Catholic University of Eastern Africa	59,270 Volumes	Kshs. 2,000,000	Fully automated	Not Stated
Daystar University	49,876 Volumes	Not Stated	Automation of catalogue in process	230
Egerton University	265,000 Volumes	Kshs. 1,076,674	Limited automation	1,720
Jomo Kenyatta University of Agriculture and Technology	80,000 Volumes	Kshs. 1,600,000	Catalogue computerized but not online	Not Stated
Kabarak University	Not Stated	Kshs. 19,070,000	Automated and 24 hours internet access	607
Kenyatta University	31 titles of journals 6000 journals online	Kshs. 3,000,000	Automated with on-line catalogue	Not Stated
Kiriri Women's University of Science and Technology	600 Volumes	No Budget indicated	Not Automated	18
Maseno University	30,000 Volumes	Not Stated	Inadequate computers	100
Moi University	850,000 Volumes	Kshs. 2,686,080	Automated	4,840
Strathmore University	100,000 Volumes 15 journal subscriptions	Kshs. 38,380,000	On-line public catalogue 24 Hrs internet access	540
United States International University	101,042 Volumes 284 print periodicals 4,669 Non-print media	Kshs. 30, 734,420	On-line database including INASP	Not Stated

Source: Board Commissioned Study, 2006

Recommendations 5.6

a)   *Universities should procure computers and jointly install appropriate infrastructure to enable lecturers to take advantage of digital libraries via the internet. The universities should also develop mechanisms of sharing resources not only within themselves but with other institutions in the country and abroad.*

b)   *A networked catalogue of journals, books and specialized publications should also be set up and made accessible to students and staff from all the local universities and colleges.*

c)   *Adequate budgetary allocation for purchase of up-to-date books and subscriptions to journals.*

5.3.2 Staff Remuneration

5.3.2.1 The academic staff in Kenya's public universities has functioned under conditions of extreme individual sacrifice over the last twenty or so years. The rapid increase in student numbers has not been commensurate with staff numbers, making the staff take on additional loads every successive year.

5.3.2.2 In recognition of this pressure on staff, the government has set up several commissions to review remuneration levels for university staff. The full recommendations of these commissions have not been fully implemented to date. The Vice-Chancellor's Committee in 2001 and the Joint Admissions Board Unit Cost Committee of CHE (2004) variously made proposals and recommendations on staff salaries, but none of these was implemented.

5.3.2.3 The latest attempt to rationalize university staff salaries by the government was in 2004. This was the major remuneration reform in the public universities over the last twenty years. The revised salary scales were generally appreciated by staff in public universities, whose expectation was that this was the first step in a process of making staff salaries and allowances realistic and attractive.

5.3.2.4 The salary scales proposed in the above documents   were generated by taking into account cost of living indices, purchasing power parity, foreign exchange rates, and by comparison of salaries for similar categories of staff within Kenya and in the region. Furthermore, the true and objective figures determined in the KIPPRA document were adjusted by successive factorization by 0.7 followed by 0.8 in order to arrive at the actual proposed figures.

5.3.2.5   The KIPPRA report was the basis of establishing the staff salary scales implemented in 2004. In November 2004, a government circular from the Office of the President provided guidelines for fixing the salaries of Chief Executive Officers of firms and institutions operating within the State Corporations Act. The recommended salary scales of Vice-Chancellors of public universities, who operate within the framework of the act, were provided in the circular. Implementation of new salaries for the Chief Executives has generated a simmering disquiet among staff, since the prevailing salary ratios between the Vice-Chancellor and the other staff has been severely distorted.

5.3.2.6   The government circular further provided that as a guideline, the salaries of other categories of staff in the state corporations such as public universities would be determined and implemented by each university council subject to availability of funds in the specific institutions.

5.3.2.7   The Board was informed that lecturers and other staff involved in teaching and administration of self-sponsored programmes (SSP) in some public universities received additional pay that was popularly being referred to as a second envelop. From the presentations made to the Board, there was a perceived lack of transparency, accountability and equity in the management and administration of this "second envelop". While the Board is of the view that university staff should be adequately and fairly compensated for any increased workload arising from the SSPs but there should be full disclosure and transparency on all the payments made to staff. Second, the implementation of the differentiated unit cost should lead to enhanced and harmonized compensation package that is more equitably distributed among the various cadres of staff.

5.3.2.8   Basic principles to guide salary specification should include, among others the cost of living indices, purchasing power parity and comparison of salaries for similar categories of staff within Kenya and in the region. The criteria should also accommodate salary reviews based on staff performance and good practice of determining the remuneration of staff in an organization's on the basis of the remunerations of the Chief Executive. The ratio between the Chief Executive's salary and that of the highest paid professor before implementation of the current salaries in 2004 was found to be 0.8. However this ratio has not been maintained during the implementation of new salaries and this has resulted to a wide gap between the Chief Executive salary and that of the other staff. This ratio, and those of the other categories of staff, could be used to derive salary scales.

Recommendation 5.7

a)   *Following the implementation of differentiated unit cost, universities should develop a new salary structure to provide for enhanced salary package for all the staff.*

b)   *The ratio between the chief executive's salary and that of other staff before implementation of the increment of Vice-Chancellors' salaries in 2004 should be used to derive rational salary scales of the other university staff by factorizing the government approved salaries of Vice-Chancellors.*

c)   *The implementation of differentiated unit cost as recommended in Chapter 8 will enable public universities to accommodate the envisaged financial burden resulting from the implementation the above staff remuneration package.*

5.3.2.9   The strength of a good university lies in the quality of staff that it has. To provide a good education to their students and to carry out outstanding consultancy and research services, public universities

must strive to attract, retain and develop high quality staff. To do so, public universities should offer attractive terms and conditions of service to their staff. The terms and conditions of service in public universities are divided into the following three categories:-

- Terms of service for academic, senior library and administrative staff.

- Terms of service for senior clerical, administrative and technical staff on grades A to F.

- Terms of service for staff on grades I to IV.

5.3.2.10 Terms and conditions of service cover the appointment, remuneration, allocation of duties, disciplinary procedures and separation and termination of services. They also cover salary scales, retirement benefits, allowances and other benefits offered to employees.

5.3.2.11 The Board received submissions that there was need to develop separate terms of service for academic and non-teaching staff. In addition, the Board has examined the various terms and conditions of service offered in the public universities and it has observed that the terms have not been reviewed regularly. The Board believes that terms and conditions of services should be   revised from time to time so that they remain competitive and dynamic. Furthermore, they should be designed in a manner that attracts highly qualified staff to the universities while at the same time retaining suitable employees.

5.3.2.12 In 2001, the Joint Admissions Board set up a Vice-Chancellors' Committee to consider how the terms of service for staff in public universities in Kenya can be improved and harmonized. Public universities implemented some of the recommendations, but these were insufficient to satisfy the demands of academic staff at the time.

Recommendation 5.8

> *Terms and Conditions of Service of all university staff should be reviewed at regular intervals by a Standing Public Universities Service Committee. The reviews should take into account cost of living indices, inflation rates, national economic performance, comparative salaries elsewhere, etc.; as is the practice in the private sector. One of the duties of the Standing Committee would be to work out a grading and remuneration schemes for all staff.*

Recommendation 5.9

> *Three separate grading and remuneration schemes be established as follows:*
>
> a)   *A scheme for Senior Management staff i.e. Vice-Chancellors, Librarians, Deputy Vice-Chancellors and Principals;*
>
> b)   *A scheme for Academic/Teaching Staff; and*
>
> c)   A scheme for Administrative/Non-Teaching Staff.

5.3.3   Schemes of Service

Staff Appointments, Appraisal and Promotions

5.3.3.1   The Board was repeatedly informed that public universities have no schemes of service for the different cadres of staff. The Board, however, noted that universities had developed comprehensive appointment and promotion criteria which specify the minimum academic and professional standards for each establishment level. These appointment and promotion criteria are equivalent to schemes of service for appointment and promotion of staff. The appointment and promotion criteria in public universities vary from one university to another as shown in table 5.2 below. The Board also notes that public universities do not carry out regular appraisals of staff as in private universities.

Table 5.2(a): Minimum Qualifications for Appointment and Promotion of Academic Staff in Public Universities

Designation	Maseno University	Kenyatta University	University of Nairobi	Egerton University.	WUCST
Graduate Assistant	➢ Upper 2nd class Bachelor's degree Below 30 years old	➢ Upper 2nd class Bachelor's degree	➢ Upper 2nd class Bachelor's degree	➢ Upper 2nd class Bachelor's degree	➢ Upper 2nd class Bachelor's degree
Tutorial Fellow	➢ Master's degree	➢ Master's degree	➢ Master's degree	➢ Master's degree	➢ Bachelor's and Master's degrees
Assistant Lecturer	➢ No direct entry	➢ Master's degree	➢ Master's degree	➢ Master's degree	➢ Bachelor's and Master's degree ➢ One year post-qualification relevant teaching or research
Lecturers	➢ Ph.D. degree or ➢ Master's degree + 5 years of university teaching/research + 3 publications in refereed journals	➢ Ph.D. degree or ➢ Master's degree, + Ph.D. registration with 50% written thesis + 3 seminar papers or Masters + 2 publications in refereed journals or university level book + 3 years university teaching as T/F or A/ lecturer	➢ Ph.D. degree or ➢ Master's degree + 3 years teaching at university level + 2 publications in refereed journals or chapters in scholarly books since last promotion ➢ Evidence of continuing research activity	➢ Ph.D. degree or ➢ Master's degree + 3 years university teaching + 2 publications in refereed journals ➢ Four salary increments after attainment of Ph.D. for university staff	➢ D.Phil/ Ph.D. or ➢ Master's degree + 3 years post-master's university teaching + 2 publications in refereed journals
Senior Lecturer	➢ Ph.D. degree + 3 years university teaching/research as a lecturer. ➢ + 3 papers in refereed journals or one university book since appointment /promotion	➢ Ph.D. degree + ➢ 5 years university teaching , 3 yrs as full-time lecturer post-Ph. D. +2 articles in refereed journal, or 1 book , since appointment as	➢ Ph.D. degree ➢ +5 years university teaching ➢ + 4 publications in refereed journals and/or publication of chapters in books past promotion	➢ Ph.D. degree + 5 years university teaching or research, three of which must have been at Lecturer/ Research Fellow ➢ + 4 articles in	➢ D.Phil. Ph. D or ➢ +4 years of teaching ➢ + 4 publication in refereed journals ➢ 8 publications in refereed journals since appointment as Research Fellow

Designation	Maseno University	Kenyatta University	University of Nairobi	Egerton University.	WUCST
	or ➢ Masters degree + 6 years university teaching as a lecturer extensive + publications in refereed journals	lecturer or ➢ 4 years teaching experience in research institute be accepted in lieu of 2 years' university teaching		refereed journals, ➢ + 6 articles for research fellow ➢ +2 articles equals I book or ➢ Masters degree ➢ + 5 years university teaching ➢ +6 publications or 1 book equiv ➢ should have supervised post graduate students; ➢ Effective teaching.	➢ Masters degree + 5 years' university teaching ➢ taught and supervised post graduate students;
Associate Professor	➢ Ph.D. degree ➢ + 3 yrs university teaching /research as a senior lecturer ➢ +5 papers in refereed journals or ➢ 2 university level books since last promotion to Senior. lecturer ➢ Supervised post graduate students; demonstrated leadership ability and proven ability to attract research funding ➢ The candidate to be peer reviewed	➢ Ph.D. degree ➢ + 8 years university teaching, 4 as full time Senior Lecturer ➢ Supervised 4 Master's students or 2 Ph.D. students since appointment as Senior Lecturer. ➢ +4 articles in refereed journals, or, 1 book since appointment as Senior Lecturer ➢ 4 yrs experience in research institute equals 2 years university teaching	➢ Ph.D. degree ➢ + 8 years university teaching ➢ 3 years must be at Senior Lecturer level ➢ Postgraduate supervision and research. ➢ 5 publications in refereed journals or chapters in books, past promotion.	➢ Ph.D. degree ➢ + 3 years university teaching since becoming Senior Lecturer/ Research Fellow. ➢ +4 articles in refereed journals, or 1 book for 2 articles since appointed as Senior Lecturer. ➢ Supervised post graduate students; ➢ Evidence of effective teaching; academic leadership	➢ D.Phil. or equivalent ➢ + 4 years university teaching ➢ +10 publications in refereed journals since Snr Research Fellow ➢ Taught and supervised post graduate students; ➢ The candidate to be peer reviewed

Full Professor	➢ Ph.D. degree ➢ +3 yrs university teaching & research as Assoc. Professor ➢ +6 papers in refereed journals, or three university level books since last promotion as Assoc. Professor ➢ Supervised post graduate students ➢ demonstrated leadership ability to attract funding ➢ The candidate will be subjected to peer review	➢ Ph.D. degree ➢ + 12 yrs university teaching 5 yrs as Assoc. Professor ➢ Supervised 4 students including 2 Ph.D. as Assoc Professor. ➢ +4 articles in refereed journals or ➢ 2 articles equal to one book ➢ 4 years in research institute equiv to 2 yrs university teaching	➢ Ph.D. degree ➢ +10 yrs teaching, , 3 yrs at Assoc. Professor level ➢ postgraduate supervision ➢ + 3 publications in refereed journals or ➢ chapters in books since last promotion	➢ Ph.D. degree ➢ +4 yrs teaching and research since promotion to Assoc. Professor or ➢ +12 yrs university teaching since appointed lecturer ➢ Must be Associate Professor ➢ + 5 articles in refereed journals, ➢ One book equals 2 articles ➢ supervised post graduate students; ➢ effective teaching; ➢ leadership qualities	➢ D.Phil. or its equivalent ➢ +5 articles in refereed journal since appointed as Associate Professor ➢ +15 publications in refereed journal since appointed as Associate Research Fellow ➢ supervised post graduate students; ➢ To be subject to peer review

Source: Board Generated Data, 2006

Table 5.2 (b): Minimum Qualifications for Appointment and Promotion Administrative Staff in Public Universities

Designation	Maseno University	Kenyatta University	University of Nairobi	Egerton University.	WUCST
Registrar /Director SWA	➢ Must have a Master's degree from a recognized University and have professional qualifications in the relevant field. ➢ Candidates with Ph.D. in the relevant field will have an added advantage	Information not available	➢ Master's degree or its equivalent in either Public Administration or relevant field ➢ CPS I or relevant postgraduate qualification ➢ 15 years administrative experience – 3 years at Deputy Registrar	➢ A Ph.D. in relevant field, plus CPS (K) with 5 years working experience of exemplary performance or ➢ A Master's degree in relent field plus CPS (K) with 10 years of working experience of exemplary work	Information not available

Designation	Maseno University	Kenyatta University	University of Nairobi	Egerton University.	WUCST
			level ➤ Computer literacy	experience	
Deputy Registrar/Deputy Director	➤ A Master's degree from a recognized university relevant field and CPS (K) with 5 years experience in grade 13	➤ Must have Ph.D degree ➤ Must have at lest 5 years administrative experience as Senior Assistant Registrar or serve 2 terms as Chairman of Department or Director ➤ Must have attended a course leading to award of certificate or diploma or degree ➤ Should show evidence of Computer literacy, membership of Professional bodies, leadership/Co-ordination skills.	➤ Bachelor's degree or equivalent ➤ CPS I or postgraduate qualification ➤ 12 years administrative experience – 3 years as senior assistant Registrar ➤ Computer literacy	➤ Doctorate degree in relevant field from a recognized Institution or ➤ A Master's degree in relevant field with CPS (K) with 5 years working experience of exemplary work performance	Information not available
Senior Assistant Registrar	➤ A Master's degree in degree from a recognized university plus relevant professional qualification and at least 5 years' experience in grade 12	➤ Must have Masters Degree or ➤ Ph.D. Degree ➤ At least 3 years Administrative Experience as Assistant Registrar ➤ Must have attended a course leading to award of a Certificate, diploma or degree	➤ 1st degree or its equivalent ➤ CPS I or relevant postgraduate qualification ➤ 9 years administrative experience – 3 years at Assistant Registrar level ➤ Computer literacy	➤ Must have a Master's degree in relevant field with a CPS (K) and a minimum of 3 years working experience of exemplary work performance or A Bachelors degree CPS (K) with 8 years of working experience of exemplary work	Information not available

Designation	Maseno University	Kenyatta University	University of Nairobi	Egerton University.	WUCST
		➢ Should have evidence of computer literacy and may have been acting as Senior Assistant Registrar		performance, 3 years of which should have been at the level of Administrative/ Human Resource Officer at the university or any other public institution	
Assistant Registrar	➢ Must have holders of a bachelor's degree in a recognized university plus relevant professional qualifications such as CPS)K), CPA(K) and at least 5 years relevant experience ➢ Master's degree in relevant field and at least 5 years relevant experience	➢ Must have bachelor's degree OR ➢ Muster's degree ➢ At least 3 yrs administrative Experience as a Senior Administrative Assistant ➢ Must be computer literate or attended a course leading to a ward of a certificate or diploma	• 1st degree for direct entry or • Serving non graduates should have KCSE or its equivalent • CPS or relevant postgraduate qualification • 6 years administrative experience – 3 years at Senior Administrative Assistant level ➢ Computer literacy	➢ Must have a Master's degree in relevant field with a CPS II or ➢ A Bachelors degree in social science with postgraduate diploma in relevant field or CPS II with 5 years of working experience of exemplary work performance ➢ CPS (K) with 3 years experience of exemplary work performance	Information not available
Senior Admin Assistant	➢ Candidates serving at grade 9 are eligible for promotion to grade 10 after satisfactory service of at least 5 years	➢ A Master's degree in Public Administration or any other equivalent degree in Social Science from a recognized university ➢ plus relevant professional qualification and at least 3 years experience	• Direct entry appointees should have at least a lower 2nd class degree from a recognized university • KCE (Non – graduates serving officers with long experience ➢ 3 years experience at Grade D as	➢ Bachelor's degree in social sciences with 3 year working experience as management trainee. ➢) /Certified Public Secretaries Part II or Higher National Diploma (HND) in Business Administration /Human Resource	Information not available

Designation	Maseno University	Kenyatta University	University of Nairobi	Egerton University.	WUCST
			Administrative Assistant	management plus 5 years experience	
Administrative Assistant	➢ Must have to have at least 5 years relevant experience at the level of grade 8 ➢ Bachelor's degree or equivalent plus 5 years experience at the level of grade 8 ➢ Holders of Master's degree or its equivalent will be considered	➢ Bachelor's degree in Public administration or any other equivalent degree in Social science from a recognized university. ➢ plus relevant professional qualification and at least 5 years experience	• Direct entry appointees should have at least a lower 2nd class degree from a recognized university • KCE (non-graduates serving officers with long experience ➢ 3 years at Grade C (non-graduates serving officers)	➢ Bachelor's degree in social sciences with one year working experience as management trainee. ➢ Higher National Diploma (HND) /Certified Public Secretaries Part II with 2 years relevant experience of exemplary	Information not available

Source: Board Generated Data, 2006

Table 5.2 (c): Minimum Qualifications for Appointment and Promotion of Technical Staff in Public Universities

Designation	Maseno University	Kenyatta University	University of Nairobi	Egerton University.	WUCST
Principal Chief Technologist	➢ Must possess Master's (M. Tech.) in relevant field ➢ Candidates with Ph.D. will be considered ➢ Candidates will be required to have at least 5 years experience at level grade 12 ➢ Must have research experience through publications in refereed journals	➢ No establishment	➢ Master's Degree either in Public Administration or relevant field. ➢ CPS I or relevant postgraduate qualification. ➢ 15 years administrative experience – 3 years at Deputy Registrar level ➢ Computer Literacy	➢ A M.Sc. degree in a relevant field of specialization, plus at least 5 years experience in the position of Chief Technologist ➢ A Higher National Diploma /B.Sc. degree plus a postgraduate diploma in relevant field plus at least 7 years experience at the level of Chief	Information not available

Designation	Maseno University	Kenyatta University	University of Nairobi	Egerton University.	WUCST
				Technologist	
Chief Technologist	➢ Candidates will be required to have required to have at least 5 years experience at the level; of grade 11 ➢ Candidates should have also show ability to conduct independent research	➢ Must have master's degree/ higher national diploma. ➢ Professional certificate/diploma in relevant technical field or any other equivalent qualification ➢ Master's degree holders - 3 years and above experience ➢ Bachelor degree holders and higher national diploma plus 5 years experience	➢ Higher diploma in relevant area or B.Sc. in relevant area or equivalent qualification plus 7 years experience as Senior Technologist	➢ Must have a Higher National Diploma or B.Sc. in relevant field and must have served in the position of Senior Technologist for at least 5 years ➢ A M.Sc. degree with at least 5 years working experience as a technologist. ➢ Evidence of involvement in research and publication will have an added advantage	Information not available
Senior Technician D/F/E	➢ Mush posses Higher Diploma or equivalent ➢ Holders of M. Tech or equivalent will be considered	➢ Bachelors degree in relevant technical field with five year working experience as management trainee ➢ 5 years experience as a Technician	➢ Higher Diploma or B.Sc. or equivalent plus 5 years experience as a Technologist	➢ Must have a higher national diploma or B.Sc. in relevant field with at least 3 years at the level of Technologist	Information not available
Technologist CD	➢ Should posses Higher Diploma or equivalent plus at least 5 years experience at grade 7 or equivalent experience in research/academic institution ➢ Those with bachelors of	➢ Must posses KCSE/KCE/EACE academic certificates ➢ Should have Higher National Diploma in relevant field or equivalent ➢ Candidates will be	➢ Higher Diploma or B.Sc. or equivalent plus 5 years experience as a Technologist	➢ Ordinary Diploma or equivalent its equivalent from a recognized institution and at least 3 years experience at the level of technician I ➢ Direct appointment	Information not available

Designation	Maseno University	Kenyatta University	University of Nairobi	Egerton University.	WUCST
	technology degree or equivalent will also be considered	required to have at least 3 years experience		for a candidate with a higher national diploma or B,Sc.	
Technical Assistant A/B	➢ Must posses diploma or equivalent qualification in a technical field ➢ Candidates will be required to have at least 5 years relevant experience at grade 6	➢ Must possess KCSE/KCE/EACE academic certificates ➢ Should have S.L.T (Senior Laboratory Technician) stage I or equivalent Technical Certificate in relevant field. ➢ Candidates will be required to have at least 8 years experience	➢ KCE with credits in relevant subjects and Ordinary Diploma or equivalent plus 3 years experience as trainee technologist	➢ Certificate in relevant field and at least 3 years experience in an academic/research institution at the level of a Technical Assistant II ➢ Direct appointment for a candidate with ordinary diploma in the relevant field or its equivalent from a recognized institution	Information not available

Source: Board Generated Data, 2006

Table 5.2 (d): Minimum Qualifications for Appointment and Promotion of Finance Staff in Public Universities

Designation	Maseno University	Kenyatta University	University of Nairobi	Egerton University.	WUCST
Finance Officer	➢ Must posses Master's degree in accounting plus CPA II or CPA(K) or ➢ CPA(K) plus MBA ➢ Candidates with Ph.D. in the relevant field will have an added advantage ➢ Candidates will be required to have at least 5 years experience at grade 14	➢	➢ CPA (K) ➢ Master's degree in relevant field ➢ Must have served for at least 7 years as DFO ➢ Be a member of a recognized professional accounting body e.g. ICPAK ➢ Must have computer knowledge in word processing,	➢ Degree in MBA with CPA(K) with 10 years experience exemplary performance	Information not available

Designation	Maseno University	Kenyatta University	University of Nairobi	Egerton University.	WUCST
			spreadsheets, and data management		
Deputy Finance Officer	➢ Must possess Masters degree in accounting plus CPA II or CPA(K) or ➢ CPA(K) plus MBA ➢ Candidates with Ph.D. in the relevant field will have an added advantage ➢ Candidates will be required to have at least 5 years experience at grade 13		➢ B.Com. with accounting option ➢ CPA (K) ➢ Have served as a Senior Accountant or as Assistant Chief Internal Auditor for a minimum of 5 years ➢ Be a member of a recognized professional accounting body (e.g. ICPAK) ➢ Have outstanding professional competence in Financial Management ➢ Demonstrated high administrative capabilities ➢ Have computer knowledge in spread sheets, data management and word processing	➢ B.Com (accounting option), degree in MBA with CPA(K) with 5 years experience exemplary performance	Information not available
Senior Accountant	➢ Must possess Master's degree in accounting plus CPA II or CPA(K) or		➢ B.Com. in accounting option or equivalent ➢ CPA (K)	➢ Degree in MBA with CPA (K) ➢ B.Com, CPA(K) with 5 years experience of	Information not available

Designation	Maseno University	Kenyatta University	University of Nairobi	Egerton University.	WUCST
	➢ CPA(K) plus MBA ➢ Candidates will be required to have at least 5 years experience at grade 12.		➢ Membership to a professional accountancy body ➢ Have shown merit and ability in accounting/auditing ➢ 5 years experience as a Senior Accountant II ➢ Computer literate in word processing, data base management and spread sheets ➢ Membership of a recognized professional body (e.g. ICPAK).	exemplary work performance	
Accountant	➢ Must possess Bachelor of Commerce (accounting option) ➢ Should have CPA Final plus at least 5 years experience at grade 7 ➢ Holders of Bachelor's degree in accounting will be considered		➢ B.Com. with accounting option or equivalent ➢ At least CPA part III ➢ Have shown merit and ability in accounting/auditing over a period of at least three (3) years as Senior Accountant EF ➢ Computer literate in word processing, data base management and spread sheets	➢ Degree in MBA with CPA II ➢ B.Com (accounting option) with CPA (K) ➢ CPA (K) with 5 years experience of exemplary work performance	Information not available

Senior Accounts Assistant E/F	➢ Must possess KCSE/KCE/ESCE academic certificates ➢ Should have CPA part 3 section 5 ➢ Candidates will be required to have at least 5 years experience at grade 6	➢ Bachelor of Commerce degree or KCSE/KCE academic certificates ➢ 5 years experience for KCE certificate holders ➢ 3 years experience for degree holder ➢ Computer certificate conforming proficiency in Modern Accounting System	➢ B.Com. with Accounting option or equivalent ➢ Must have passed at least part II or CPA examinations ➢ Have knowledge of spread sheets and Data Base Management ➢ Have shown merit and ability over a period of at least three (3) years in the Grade of Assistant Accountant	➢ B. Com (accounting option) PLUS CPA II or ➢ B. Com (accounting option) with 3 years experience with exemplary work performance or ➢ CPA II with 5 years experience with exemplary work performance	Information not available
Accounts Assistant C/D	➢ Must possess KCSE/KCE/EACE academic certificates ➢ Should have CPA part 2 section 4 ➢ Candidates will be required to have at least 5 years experience at grade 5 ➢	➢ Bachelor of Commerce degree or KCSE/KCE academic certificates ➢ CPA 1 or any other equivalent qualification ➢ 5 years experience for KCE certificate holders ➢ 3 years experience for degree holder	➢ KCSE Grade C+ or above with at least C in English and Maths or equivalent qualifications ➢ CPA I or equivalent ➢ 3 years experience as Accounts Clerk Grade IV ➢ Knowledge in computer operations	➢ B. Com (accounting option) – entering at grade ''D'' or ➢ Diploma in accountancy or CPA 1 from recognized institution with 3 years working experience of exemplary work performance	Information not available
Accounts Assistant A/B	➢ Must possess KCSE/KCE/EACE academic certificates ➢ Should have CPA part 2 section 3 ➢ Candidates will be required to have at least 5 years experience at		➢ KCSE Grade C+ or above with at least C in English and Maths or equivalent qualifications ➢ CPA I or equivalent ➢ 3 years experience as Accounts Clerk	➢ Diploma in Accountancy or ➢ KATC final or equivalent with 3 years of working experience of exemplary	Information not available

			Grade IV	performance	
	➤		➤ Knowledge in computer operations		

Source: Board Generated Data, 2006

Table 5.2 (e): Minimum Qualifications for Appointment and Promotion of Library Staff in Public Universities

Designation	Maseno University	Kenyatta University	University of Nairobi	Egerton University.	WUCST
University Librarian	➤ Must possess MA/MSc in Information Science and must have evidence of substantial publication or ➤ Should have 5years relevant experience in grade 14 ➤ Holders of Ph.D. in Information Science with evidence of substantial publication	Information not available	➤ Bachelor's degree or equivalent ➤ Postgraduate qualifications in Librarianship and Library Information Science ➤ 5 years experience as Deputy Librarian ➤ Evidence or research in Librarianship will be an added advantage	➤ Must have a Ph.D. degree in library/information science and must have served at a senior management level in an academic library for 5 years ➤ Master's degree in library/information science, with 10 years working experience of exemplary work performance in an academic library	Information not available
Deputy University Librarian	➤ Must possess MA/MSc in Information Science and must have evidence of substantial publication or ➤ Should have 5years relevant experience in grade 13 ➤ Holders of Ph.D. in Information Science with evidence of substantial publication	Information not available	➤ Bachelor's degree or equivalent ➤ Postgraduate qualification in Librarianship and Library Information Science ➤ 3 years experience as Senior Librarian ➤ Evidence or research in Librarianship will be an added	➤ Must have a Ph.D. degree in library/information science with 3 years experience with exemplary work performance at senior library management level ➤ Master's degree in library/information science, with 8 years	Information not available

Designation	Maseno University	Kenyatta University	University of Nairobi	Egerton University.	WUCST
			advantage	of library service 5 years working experience of exemplary work performance in an academic Library	
Senior Librarian	➢ Must possess MA/MSc in Information Science ➢ Must have evidence of independent Research in Information Science ➢ Should have 5years relevant experience in grade 12 ➢ Holders of Ph.D. in Information Science will also be considered	➢ Must have A Bachelor's degree in Library Science /Higher National Diploma in Archives or equivalent ➢ Must posses KCSE academic certificate or equivalent ➢ Candidates will be required to have at least 8 years experience	➢ Bachelors degree or equivalent ➢ Postgraduate qualification in Librarianship and Library Information Science ➢ 3 years experience as Librarian	➢ Must have a Ph.D. degree in library/information science ➢ Master's degree in library/information science, with 5 years working experience of exemplary work performance in an academic library	Information not available
Assistant Librarian	➢ Must possess MA/M.Sc. in Information Science ➢ Must have evidence of independent Research in Information Science ➢ Should have 5years relevant experience in grade 12 ➢ Holders of Ph.D. in Information Science will also be considered	➢ Must possess KCSE/KCE/EACE academic certificates ➢ Should have Certificate in Library Science or equivalent ➢ Candidates will be required to have at least 3 years experience	➢ Bachelor's degree ➢ 3 years in a busy library	➢ Must have a Masters degree in library/information science ➢ A Bachelor's degree in Library and Information Science obtained from a recognized institution with 5 years of working experience of exemplary work performance	Information not available
Senior Library assistant	➢ Must possess KCSE academic certificate or equivalent	➢ Must posses KCSE/KCE/EACE academic certificates	➢ Bachelor's degree from a recognized University	➢ Professional degree in Library/Information	Information not available

Designation	Maseno University	Kenyatta University	University of Nairobi	Egerton University.	WUCST
D/E/F	➢ Candidates with Information Science with 5 years relevant experience in grade 7 will be considered ➢ Those with Bachelor's degree in Information Science will be considered ➢ Those with Master's degree in relevant filed will also be considered	➢ Should have Certificate in Library Science or Archival Studies Stage II ➢ Candidates will be required to have at least 5 years experience ➢	➢ or a Diploma in library and Information Sciences ➢ 5 years in a busy academic Library	Science entering at 'E' ➢ Must have Library and Information Science degree with 3 years of working experience of exemplary performance entering at grade 'D'	
Senior Binder D/E/F	➢ Must possess KCSE academic certificate or equivalent ➢ Candidates with Information Science with 5 years relevant experience in grade 7 will be considered ➢ Those with Bachelor's degree in Information Science will be considered ➢ Those with Master's degree in relevant filed will also be considered	Information not available	➢ KCE Div. II or equivalent ➢ Certificate or Ordinary Diploma in Book Binding and Print Finishing ➢ At least 3 years relevant experience at Grade ABC	➢ Must have B.Sc. (Printing technology) entering at grade ,'D'' ➢ Higher national Diploma with 3 years working experience of exemplary work performance	Information not available
Senior Achieves Assistant D/E/F	➢ Must possess KCSE academic certificate or equivalent ➢ Candidates with Information Science with 5 years relevant experience in grade 7 will be considered	Information not available	➢ KCE Div. II or equivalent ➢ Certificate or Ordinary Diploma in Book Binding and Print Finishing ➢ At least 3 years relevant experience	➢ Must have professional degree in Archives and Records management entering at Grade ''E'' ➢ Must have general first degree entering at grade ''D''	Information not available

Designation	Maseno University	Kenyatta University	University of Nairobi	Egerton University.	WUCST
	➢ Those with bachelor's degree in Information Science will be considered		at Grade ABC	or ➢ Must have diploma in Archives and 5 years or working experience of exemplary work	
Library Assistant A/B/C	➢ Must have KCSE academic certificate or equivalent ➢ Must possess Diploma in Information Science ➢ Those with certificate in Information Science and at least 10 years experience in grade 4 will be considered	➢ Must possess KCSE/KCE/EACE academic certificates ➢ Should have a certificate in Library Science or Archival Studies Stage II ➢ Candidates will be required to have at least 5 years experience	➢ KACE or equivalent with 2 principals or more ➢ Library Assistants certificates	➢ Must have KCSE D+ or equivalent with certificate in Library and Information Science ➢ Certificate in Library and Information Science with 2 years of experience in academic library entering at Grade ''B''	Information not available
Binder A/B/C	➢ Must have KCSE academic certificate or equivalent ➢ Must possess a diploma in Information Science ➢ Those with certificate in Information Science and at least 10 years experience in grade 4 will be considered	Information not available	➢ KCE Div. III or equivalent ➢ Certificate or Ordinary Diploma in Book Binding and Printing Finishing ➢ At least 3 years relevant experience	➢ Must be holder of City & Guild/ Diploma in Printing Technology without experience should be appointed at Grade A	Information not available
Archives assistant A/B/C	➢ Must have KCSE academic certificate or equivalent ➢ Must possess a diploma in Information Science ➢ Those with certificate in Information Science	Information not available	Information not available	➢ Must have KCSE D+ or equivalent with a certificate in Archives and Records Management	Information not available

Designation	Maseno University	Kenyatta University	University of Nairobi	Egerton University.	WUCST
	and at least 10 years experience in grade 4 will be considered				

Source: Board Generated Data, 2006

Table 5.2 (f): Minimum Qualifications for Appointment and Promotion of Secretarial Staff in Public Universities

Designation	Maseno University	Kenyatta University	University of Nairobi	Egerton University.	WUCST
Executive Secretary	➢ 50/120 w.p.m. in Typewriting and Shorthand respectively ➢ Business English III ➢ Office Management III ➢ Secretariat Duties II ➢ Office Practice II ➢ Commerce II ➢ At least 5 years experience in grade 10 or equivalent	➢ Must have a Bachelor's degree in Secretarial studies or equivalent ➢ 60/110 w.p.m. in typewriting and shorthand respectively ➢ Certificate in Computer knowledge at least 5 packages ➢ Pass in business studies and office Practice/ Management ➢ At least 8 years experience ➢	➢ At least KCSE D+ or KCE Div. III or an equivalent qualification with a credit in English Language Business English III Commerce II ➢ Office Management III Shorthand III (minimum 120 w.p.m.) or Audio Typewriting III Typewriting 60 w.p.m. Diploma in Business Administration Should have certificate in and be able to use Word Processing, Spreadsheets and Data Base Management packages or ➢ A good 1st degree ➢ Secretarial Skills including Typewriting ,	➢ Must have a Bachelor's degree with Secretarial studies and management or ➢ A Higher national Diploma with secretarial studies and management certificate or ➢ Diploma in Public Relation, Business administration or a relevant field with 5 years of working experience of exemplary performance	Information not available

Designation	Maseno University	Kenyatta University	University of Nairobi	Egerton University.	WUCST
			Shorthand and Office Management and an excellent command of both written and spoken English ➤ 3 years experience in a busy office ➤ Knowledge of Anti-Virus Tools		
Secretary F	➤ 50/120 w.p.m. in Typewriting and Shorthand respectively ➤ Business English III ➤ Office Management III ➤ Secretariat Duties II ➤ Office Practice II ➤ Commerce II ➤ At least 5 years experience in grade 9 or equivalent	➤ Must possess KCSE/KCE/EACE academic certificates ➤ 60/110 w.p.m. in Typewriting and Shorthand respectively ➤ Certificate in Computer knowledge at least 5 packages ➤ Pass in Business Studies and Office Practice/ Management ➤ At least 5 years experience	➤ At least KCSE d+ or KCE Div. III or an equivalent qualification with a credit in English Language Business English III Commerce II Office Management III Shorthand III (minimum 12) w.p.m.) Audio-Typewriting III Typewriting 60 w.p.m. Diploma in Business Administration "Should have certificates in and be able to use Word Processing, Spreadsheets and Data Base Management packages ➤ 3 years experience as Assistant Executive Secretary	➤ Graduate Secretary wit 3 years experience or ➤ Higher National Diploma plus 5 years working experience of exemplary work performance or ➤ Must have served as Secretary in Grade C/D for at least 3 years with exemplary work performance and must have passed the following subjects by the Kenya National Examination Council of equivalent body Shorthand III 100 w.p.m. Typewriting 50/60 w.p.m Business English III	Information not available

Designation	Maseno University	Kenyatta University	University of Nairobi	Egerton University.	WUCST
			Grade E	Commerce II Office Practice/Secretarial Duties II Office Management III	
Secretary E	➢ 50/120 w.p.m. in Typewriting and Shorthand respectively ➢ Business English III ➢ Office Management III ➢ Secretariat Duties II ➢ Office Practice II ➢ Commerce II ➢ At least 5 years experience in grade 8 or equivalent ➢ Holders of Bachelor's degree in other areas of specialization and have certificates in full secretarial course or ➢ Holders of Master's degree in secretarial studies will also be considered(secretariat studies) will be considered	➢ Must possess KCSE/KCE/EACE academic certificates ➢ 60/100 w.p.m. in Typewriting and Shorthand respectively ➢ Certificate in Computer knowledge at least 5 packages ➢ Pass in Business Studies and Office Practice/ Management ➢ At least 5 years experience	➢ At least KCSE D+ or KCE Div. III or an equivalent qualification with a credit in English Language Business English III Commerce II Secretarial Duties II Office Management III Shorthand III (minimum 120 w.p.m.) or Audio Typewriting III Typewriting III (minimum 50 w.p.m. ➢ Should have certificates and be able to use Word Processing, Spread Sheets, Data Base Management packages ➢ Must have 3 years experience as Senior Secretary Grade D	Information not available	Information not available
Secretary D	➢ 50/120 w.p.m. in Typewriting and Shorthand respectively ➢ Business English III	➢ Must posses KCSE/KCE/EACE academic certificates	➢ At least KCSE D+ or KCE Div. III or an equivalent qualification with a	Information not available	Information not available

Designation	Maseno University	Kenyatta University	University of Nairobi	Egerton University.	WUCST
	➤ Office Management III ➤ Secretariat Duties II ➤ Office Practice II ➤ Commerce II ➤ At least 5 years experience in grade 7 or equivalent ➤ Holders of Bachelor's degree (secretarial studies) will be considered	➤ 60/100 w.p.m. in Typewriting and Shorthand respectively ➤ Certificate in Computer knowledge ➤ Pass in Business Studies and Office Practice/ Management ➤ At least 5 years experience	credit in English Language Business English III Commerce II Secretariat Duties II Office Management III Shorthand III (minimum 120 wpm) or Audio-Typewriting III Typewriting III (minimum 50 wpm) ➤ Should have certificates and be able to use Word Processing, Spread Sheets, Data Base Management packages ➤ Must have 3 years experience as Assistant Senior Secretary Grade C		
Secretary C	➤ 50/120 w.p.m. in Typewriting and Shorthand respectively ➤ Business English III ➤ Office Management III ➤ Secretariat Duties II ➤ Office Practice II ➤ Commerce II ➤ At least 5 years experience in grade 6 or equivalent	➤ Must possess KCSE/KCE/EACE academic certificates ➤ 60/100 w.p.m. in Typewriting and Shorthand respectively ➤ Certificate in Computer knowledge ➤ Pass in business	➤ At least KCSE D+ or KCE Div. III or an equivalent qualification with a credit in English Language Business English III Commerce II Secretariat Duties II Office Management III Shorthand III (minimum 120 wpm) or Audio-	➤ Higher National Diploma in Secretarial Studies and Management at Grade ''D' ➤ Must have served at grade A/B for 3years with exemplary work performance and passed the following subjects offered by the Kenya National	Information not available

Designation	Maseno University	Kenyatta University	University of Nairobi	Egerton University.	WUCST
		studies and office Practice/ Management ➢ At least 5 years experience	Typewriting III Typewriting III (minimum 50 wpm) ➢ Should have certificates and be able to use Word Processing, Spread Sheets, Data Base Management packages ➢ Must have 3 years experience as Secretary Grade B or	Examination Council or equivalent examination body.' Shorthand 100 w.p.m. Typewriting 50 w.p.m Business English II Commerce III Office Practice/Secretarial Duties II Office Management III	
Secretary B	➢ 50/100 w.p.m. in Typewriting and Shorthand respectively ➢ Business English III ➢ Office Management III ➢ Secretarial Duties II ➢ Office practice II ➢ Commerce II ➢ At least 5 years experience or equivalent	➢ Must possess KCSE/KCE/EACE academic certificates ➢ 50/80 w.p.m. in Typewriting and Shorthand respectively ➢ Certificate in Computer knowledge ➢ Pass in Business Studies and Office Practice/ Management ➢ At least 5 years experience	➢ At least KCSE D+ or KCE Div. III or an equivalent qualification with a credit in English Language Business English III Secretarial Duties II Commerce II Office Management III Shorthand (minimum 100 wpm) or Audio - Typing III Typewriting III (minimum 50 wpm) ➢ Have Certificates in and be able to use Word Processing, Spreadsheets and Data Management package ➢ Minimum of 3 years	Information not available	Information not available

Designation	Maseno University	Kenyatta University	University of Nairobi	Egerton University.	WUCST
			satisfactory service as Assistant Secretary Grade A		
Secretary A	➢ 50/60 w.p.m. in Typewriting and Shorthand respectively ➢ Business English II ➢ Office Practice II ➢ Commerce II ➢ Experience will be added advantage	➢ Must possess KCSE/KCE/EACE academic certificates ➢ 50/80 w.p.m. in typewriting and shorthand respectively ➢ Certificate in Computer knowledge ➢ Pass in Business Studies and Office Practice/ Management ➢ At least 5 years experience	➢ At least KCSE D+ or KCE Div. III or an equivalent qualification with a credit in English Language ➢ Stage I – III in the following subjects offered by KNEC or an equivalent certificate from a recognized examining body: Business English II Secretarial Duties II Office Practice II Commerce II Shorthand II (minimum 80 wpm) Typewriting III (minimum 50 wpm) Have knowledge of Word Processing	➢ Must have at least K.C.S.E (D+) or K.C.E. Division III with credit in English, and must have passed the following subjects offered by the Kenya National Examinations Council or equivalent body Shorthand 80 w.p.m. Typewriting 50 w.p.m Business English II Commerce II Office Practice/Secretarial Duties II Should have served as Copy Typist Grade IV for 5 years experience of exemplary work performance	Information not available

Source: Board Generated Data, 2006

5.3.3.2   The Board further noted that public universities had statutory appointment and promotion committees with clearly documented terms of reference, procedures and criteria for appointment and promotion of academic staff. These statutory provisions are sufficient for credible quality assurance framework if they are not abused. However the Board was informed that the established appointment and promotion criteria were not always strictly adhered to in some public universities and that promotions in some universities had been carried out irregularly. The perceived unfair promotions in the affected universities have affected the morale of hard working and deserving staff to the extent that some lecturers had opted to seek alternative employment in other sectors of the economy or abroad. This has led to brain drain.

5.3.3.3   An analysis of the appointment and promotion criteria reveals that some universities demand more publications in refereed journals and more years of university teaching experience than others. For example, a master's degree holder must have taught in the university for five years and published three articles to be appointed a lecturer in Maseno University. On the other hand, a master's degree holder should only have three years university teaching and two publications to be appointed lecturer at either Egerton or WUCST,

5.3.3.4   The Board noted that appointment and promotion criteria in public universities do not consider the number or quality of any innovations, discoveries or patents. The criteria mainly concentrate on academic qualifications (attainment of Ph.D. degree), experience in university teaching and publications in refereed journals. Exemplary teaching and mentoring are not taken into account. In some universities, promotional criteria include community and professional service, quality of teaching, results of performance appraisals and evidence of academic leadership.

5.3.3.5   Some universities have different criteria for appointment in professions such as medicine, engineering, commerce and information communications technology. The Board noted that the criteria for appointment and promotion of academic staff in the public universities are rigorous enough and ought to be maintained. However, they must not only be strictly followed, but also seen to be followed fairly to all staff.

Recommendation 5.10

The criteria for appointment and promotion of staff be incorporated into the Terms and Conditions of Service manuals, be issued to staff and strictly adhered to.

Recommendation 5.11

In addition to publications, research and supervision, universities should develop more result oriented promotion criteria based on effectiveness and quality of teaching as well as allied innovations. Furthermore, the quality of past experience, conduct and character of staff should be taken into account during appointment and promotion.

5.3.4 Emeritus Positions and Joint Appointments

5.3.4.1   To attain the status of centres of excellence, universities should strive to associate themselves with internationally recognized scholars, creative thinkers, and inventors. Scholars of stature could then be accessible to act as mentors to staff and students. Eminent scholars, inventors and thinkers usually hold appointments elsewhere in private and public sectors, or are in retirement. The Board learnt that there are instances where a public university has been able to identify and attract personalities of international stature and scholarship into the

ranks of its staff, but has been financially constrained to pay an attractive package.

Recommendation 5.12

Universities should implement existing provisions of emeritus professor positions to capture retired scholars and ensure that universities continue to benefit from those who have made significant academic contributions. Such eminent scholars, who are not formally in university employment, should be facilitated to participate in teaching and research, and to serve as bridges linking universities to other sectors of the economy. The holders of such appointments should usually, be provided with office space, telephone, computer, e-mail facilities, and agreed honoraria for supervision and limited teaching. The costs of appointing or hosting of such a scholar could be shared among several universities if the services of the scholar are also shared.

Recommendation 5.13

Public universities should consider joint appointment of experienced outstanding scholars, thereby sharing their services during the period of appointment.

5.3.5 Leave

Leave of Absence

5.3.2.1   The Board was informed that some senior academic members of staff in public universities have had to resign because their request for unpaid leave of absence had been denied. The value of allowing staff to go on leave of absence should be to enable them to take up appropriate appointments in other institutions and countries to enrich their experiences without having to resign from their university posts.

The leave of absence may be allowed for up to a specified time limit as deemed fit by the university.

Recommendation 5.14

In order not to lose these experienced staff, universities should as far as possible be flexible in allowing staff who are not on any type of service bond to take unpaid leave of absence for an agreed period.

5.4. STAFF INCENTIVE SCHEMES

5.4.1 Enabling Working Environments

5.4.1.1 Salary enhancement may reduce dissatisfaction, but it does not necessarily enhance satisfaction. For ensuring staff satisfaction, the working environment and conditions must be attractive and enabling.

5.4.1.2 Public universities have been operating without proper plans to guide them on the facilities required for effective teaching and research. As a result, facilities have not been expanded to cope with increase in student enrolments. This has been perceived as a reflection of the nation's lack of resolve to uplift the environment under which staff members are expected to discharge their teaching duties, research and community service. This has generated cases of low staff morale.

5.4.1.3 In addition to the above, other factors affecting staff welfare in public universities include:

- Internal disharmony and friction between different categories of staff. The top university managements were reported to draw hefty salary packages while the technical, administrative and support staff take home meagre packages. The Board was also informed that the friction is exacerbated by the lack of an appropriate harmonized scheme of service.

5.4.2 Medical and Education Schemes

5.4.2.1   Most universities provide medical cover to staff and their dependants. Health issues are critical to sustain staff welfare, particularly with the emergence of HIV/AIDS and its related complications. Taking into account the cost of medical care, it is important to cater for medical requirements of the staff and their dependants. It is expected that staff productivity will be high with increased wellbeing of the staff through suitable medical schemes.

5.4.2.2   In addition to the above, to attract staff with young families, universities should consider tuition waiver for the children and spouses. For instance, University of Nairobi is granting tuition waiver of fifty per cent for staff dependants and forty per cent for members of staff pursuing higher education at the university, while at the Catholic University of Eastern Africa and Daystar University the waiver is a hundred per cent of the tuition for the employees' spouse and children. The benefit is also extended to one student for members of staff who have retired from the university. These examples should be emulated by other universities. However, the Board was informed by some universities that the tuition waiver was being taxed thus reducing its value especially for those with low salaries.

Recommendation 5.15

Universities should take suitable medical insurance schemes for their staff.

Recommendation 5.16

Universities should provide at least fifty per cent tuition fee waiver to all cadres of staff's spouses and children as a means to attract and retain qualified and competent staff. The tuition waiver should be tax free.

5.4.3 Tax-Based Incentives

5.4.3.1   In addition to salary, the government should put in place other mechanisms of recognizing the commitment and sacrifice of staff. In 1988 the government undertook to allow university teaching staff to import vehicles for their personal use free of duty. Vehicles were perceived to be essential for lecturer's work. This facility was later suspended in 2004.   The suspension of the duty free facility for purchase of vehicles is a contentious and emotive issue with university staff.

5.4.3.2   Staff members in public universities have requested that the government should consider restoring the duty remission facility for purchasing suitable vehicles for house to office and research transport, but with more strict rules to minimize abuse of the system. Staff members have also raised the matter of taxation of reimbursable expenses such as transport allowance and purchase of research and teaching tools such as computers and access to internet.

5.4.3.3   The intention of this benefit was to attract and retain staff in the universities. Its withdrawal in July 2004 has generated a lot of dissatisfaction among lecturers in the public universities. Staff feels that withdrawal of the duty free car benefit was unfair and ill-advised. There is, therefore, need to compensate the staff that were affected by this move, while new initiatives should be devised to achieve the intended purpose of retaining the staff in the universities. The Board was informed that the facility was however, grossly misused and abused by some teaching staff. It was also observed that only a few members of staff used the facility in each year.

Recommendation 5.17

The government should provide tax incentives to individual staff members through their institutions to facilitate the purchase of equipment that will improve the quality of teaching and research in public universities.

Recommendation 5.18

In addition to salaries, there is need to introduce new benefits such as loan schemes for cars or homes, repayable at reasonable interest rates, in order to attract and retain qualified staff in public universities.

Recommendation 5.19

Public universities should consider paying appropriate non-practice allowances and members' dues to professional associations such as medical doctor's, lawyers, engineers, architects and their professionals who are registered in professional associations to encourage them to concentrate in their duties in the universities.

5.4.4 Equity Issues

Gender

5.4.4.1   There are two other issues to note on staffing in public universities. First, the status of gender within the workforce in the universities and especially at senior management levels is a critical one. An analysis needs to be undertaken to determine whether one third of senior staff are women as stipulated by the *Sessional Paper No 1, 2005*. Second, it is important to note that the non-teaching staff cadres play a critical role in the achievement of the core functions of the university. This is particularly the case in the professional cadre such as technicians, librarians, accountants, administrators and secretaries.

Recommendation 5.20

> *Universities should provide scholarships to women at postgraduate level to build their capacity and thus reduce the gender disparity that exist. Universities should mount affirmative action to increase the number of women academic members of staff by one third by 2010.*

5.4.5 Staff Rewards and Recognition System

5.4.5.1 The Board was informed that there are no systematic approaches to recognizing the contributions of staff within the university and national levels. This has contributed to brain drain and discouraged innovation.

5.4.5.2 University staff can be motivated to work harder by being suitably recognized and commended for their achievements. To motivate hard working staff in universities, rewards and recognition schemes should be established within the university and nationally. These schemes will boost the morale of staff and increase their productivity in the attainment of the institution's mission and vision.

Recommendation 5.21

> *Universities should recognize and reward staff of outstanding performance in teaching, research, institutional management, and to community service, every year. The names of such outstanding teachers or researchers should be forwarded for national recognition during the national and international awards.*

5.5 STAFF ALLOWANCES

5.5.1 General Allowances

5.5.1.1 Allowances are generally neither substitute for salaries nor are they permanent. Staff in the public universities is eligible to several allowances either to reimburse them for expenses incurred in the

execution of their duties or to compensate them for rendering services under certain circumstances. The Board was informed that the current rates of these allowances are too low to adequately compensate staff for rendering services under certain circumstances.

5.5.2 Housing Allowance

5.5.2.1　Housing is a basic human need. Consequently, proper housing is a great motivating factor to staff and has a direct bearing on staff productivity. Public universities recognized this factor and for a long time paid the highest house allowances among the public sector employers. Universities also provided competitive and high quality housing for their academic and senior administrative staff. This situation changed when prices of houses and rents increased substantially while the universities continued to operate under serious budgetary constraints. Furthermore, universities could not sustain the provision of high cost of housing to the increasing number of staff.

5.5.2.2　Some public universities own many residential houses. The University of Nairobi, for example, owns over 468 residential units in Nairobi which are rented to qualified staff at 'market rates'; Egerton, Moi and Kenyatta universities own substantial estates for staff rental within their respective campuses. All public universities pay housing allowance to staff who then rent housing from the university or elsewhere. Universities have also schemes for guaranteeing members of staff to obtain house loans, usually, at negotiated rates of interest.

Recommendation 5.22

Public universities should explore the possibility of establishing home ownership schemes including negotiated mortgages by which university staff would be enabled to purchase and own their homes that befit their status.

5.5.3 Other Obligatory Allowances

a) Subsistence Allowance

5.5.3.1 Rates of this allowance do not generally reflect the prevailing cost of living in the local and world destinations, and are not harmonized in the university sector.

Recommendation 5.23

Current rates of subsistence allowance should be harmonized and adjusted periodically to reflect the fluctuating costs of living indices.

b) Leave Travelling Allowance

5.5.3.2 The rates of leave allowance payable to staff to cover the cost of travel when proceeding on leave are generally insufficient to enable staff and their families to take essential annual vacations.

Recommendation 5.24

Leave travelling allowance should be made equitable and be paid at the rate of one month's basic salary when staff proceeds on leave.

c) Entertainment Allowance

5.5.3.3 This allowance is paid monthly on non-accountable basis to staff whose positions require them to entertain official visitors in the cause of their duties. The current rates are felt to be generally low, compelling the affected staff to resort to their personal income to entertain official university guests.

5.5.3.4 The Board feels that the image of the universities would be enhanced if senior members of staff are facilitated to entertain official guests satisfactorily. It is, however, necessary to establish the cadre of staff whose duties may require them to host and entertain official guests.

The allowance should be for public relations, enhancing the image and strengthening the links between universities and the outside world.

Recommendation 5.25

The universities should set up appropriate criteria on the category and cadres of staff to be provided with entertainment allowance, and membership in specified professional, sports and social clubs.

d) Commuting Allowance

5.5.3.5 This allowance is for meeting transport expenses to and from places of work. The payment varies from university to university.

Recommendation 5.26

The current rates of commuting allowances should revaluated in view of the expansion of the some universities and the fact that some staff often work at night due to increased enrolments and time schedules for regular and SSPs. Payment should be non-accountable and non-taxable since they represent expenses.

e) Mileage Allowance

5.5.3.6 This is paid to staff that use personal vehicles in the performance of official duties. The allowance is normally reimbursed against mileage covered subject to certain limits. The Board noted that different rates are payable in the universities for vehicles of similar capacities, and that the rates do not compensate staff fully for use of personal vehicles to perform official duties. The rates are generally below AA rates.

Recommendation 5.27

Mileage claims should be based on Automobile Association (AA) rates, which are more realistic and reflective of the realities of vehicle maintenance and operational expenses.

f) Responsibility Allowance

5.5.3.7   This is paid to members of staff who are assigned duties over and above their substantive responsibilities. These assignments are not provided for in the schemes of service nor are they promotional. The committee noted some discrepancies on the criteria for eligibility and the amount attached to each post. For example, professors in some universities are paid responsibility allowance while lecturers are not paid. Second, some senior management officers are paid while the posts they occupy have statutory salaries.

Recommendation 5.28

That criteria and eligibility for this allowance should be rationalized and be benchmarked with best practices in the corporate world.

g) Acting Allowance

5.5.3.8   This allowance is paid to staff that discharge responsibilities of a post which is higher than their current appointment. In most organizations, this allowance is computed as the difference between the staff's current salary and the starting salary attached to the higher post. In public universities, the rate of acting allowance is a fixed amount, which rises according to one's grade and varies from university to university.

5.5.3.9   In organizations that calculate the allowance using the difference between salary levels, the computation can discriminate against those whose salaries are close, equal or above the minimum point of the higher grade. Public universities' method of calculation could also, mean that, depending on a staff earning, one could either earn too little or be over-paid.

Recommendation 5.29

Acting allowance should be harmonized in all public universities.

h)   Passage and Baggage Allowance

5.5.3.10   The allowance is paid either on first appointment or on termination of appointment. It is intended to assist staff meet their travelling expenses during periods of relocation.   The current rates are not sufficient to cater for transportation of self, family, and luggage.

Recommendation 5.30

The rates of baggage and passage payments should be rationalized and based on the cost of relocation.

i)   Hardship Allowance

5.3.2.1   Hardship allowance is paid to staff that are relocated or based in areas which are considered difficult to live in due to either the environment, inaccessibility of basic infrastructure, or insecurity or a combination of these factors.   It is more equitable for all employees working in designated hardship areas to enjoy similar benefits.   Currently, University of Nairobi pays the allowance at the rate of ones basic salary while Egerton University pays at the rate of thirty per cent of basic salary or Kshs.1,200 for married employees and Kshs.600 for single employees whichever is less.   The Board's view is that this allowance should be paid on the basis of the staff's grade and salary.

Recommendation 5.31

Hardship allowance be harmonized in all public universities.

j)   Extraneous Duty Allowance

5.5.3.12   This is payable to staff whose duties expose them to excess physical and mental stress.   In public universities, the allowance is paid to staff

in certain sensitive offices such as Dean of Students, medical, security, and transport officers. The cadres of beneficiaries of this allowance differ from university to another. The Board's view is that this allowance is treated as responsibility allowance and its rate be rationalized.

k) Risk Allowance

5.5.3.13 Risk allowance is paid to staff exposed to certain occupational hazards such as exposure of health workers (e.g. nurses, clinical officers, medical laboratory technicians, funeral superintendents, and mortuary attendants) to contaminated materials. The risk of exposure may go beyond physical harm, and may include negative impacts on the staff's spiritual and psychological wellbeing. At the moment, no university pays this allowance.

Recommendation 5.32

Universities may consider paying risk allowance to staff or take risk insurance cover for staff working in conditions deemed exceptionally risky.

l) Book Allowance

5.5.3.14 Employees should be provided with suitable tools of trade to enable them to perform their duties effectively. For academic staff, these tools of the trade include teaching materials that facilitate keeping abreast with new information required for effective research and teaching. Most of these materials are not available locally and are ordered from abroad at exorbitant expenses. Public universities are unable to supply such materials and hence academic staff members are either forced to spend their personal incomes to acquire them or continue relying on outdated, antiquated and inadequate reference materials in the libraries. This situation does not offer an environment that is conducive to teaching and research. At the moment only Kenyatta

University pays book allowance to enable teaching staff to purchase books and journals.

Recommendation 5.33

A suitable book and equipment allowance should be paid to all teaching staff.

5.6   RETIREMENT BENEFITS

5.6.1   All the public universities have contributory retirement benefit schemes for staff in the middle and academic grades. Although the pension schemes are contributory, the per centage contribution by the employees and employers are not similar among the public universities. It is desirable to create some harmony and improve the retirement benefits to levels in line with other public sector organization. RBA has very clear rules that facilitate governance of retirement schemes.

Recommendation 5.34

a).   *Universities' contribution to pension schemes should be harmonized and members' contribution pegged at agreed levels.*

b).   *Universities should develop sustainable and suitable retirement packages within Retirement Benefits Authority (RBA) provisions, and ensure monthly remittances to the schemes.*

c)   *Universities should strictly comply with RBA requirements, and where they have not done so in the past, take measures to become compliant.*

5.7   STAFF TRAINING AND DEVELOPMENT

5.7.1 Staff Training Programmes

5.7.1.1   The effectiveness of a university depends on the efficiency and quality of its staff, both non-teaching and academic staff. Reduced funding from the government and the expansion in student enrolment in public universities in Kenya has resulted in reduction in academic staff recruitment, staff training, development and retention.

5.7.1.2   In the late 70s and early 80s, the University of Nairobi had a vigorous programme for staff training and development through internal and external scholarships offered through the government and other external programmes. Other universities which were established from the mid-80s embarked on similar training programmes locally and overseas. Another major staff training programme was mounted in early to mid-90s with support from the World Bank. However, since then no postgraduate training programmes have been initiated in spite of expansion of public and private universities. In addition to the World Bank, other organisations that provided scholarships are Rockefeller, Ford Foundation, Commonwealth, DAAD, IDRC, SIDA and bilateral agencies –JICA, and Peoples Republic of China, Belgium, DFID, USAID, and CIDA.

5.7.1.3   The objective of staff training and development in universities is to ensure that there are sufficiently trained, qualified and skilled members of staff in position to support the various programmes. Public universities need to continue to train and develop staff for improved performance in teaching, research, service and administration. Training should aim to replace members of staff who leave service for various reasons. It should also cater for new technological and socio-economic demands, succession, new disciplines, new academic

programmes e.g. open, distance and e-learning. Training should cater for personal career development and fulfilment for individual staff and aim at achieving overall posterity for teaching, research, service and higher education management in the country.

5.7.1.4   Training and development programmes should also provide for bench-marking. They should cater for staff exchange programmes, attachment to industry and sabbaticals in other centres of excellence within and outside the country. Such exposure is useful for upgrading the skills, knowledge and worldview in the developments in higher education.

Recommendation 5.35

In addition to the national strategic training programmes, each university should include clear capacity building programmes for efficiency and succession in their strategic plans.

5.7.2   Training and Development Policies in Public Universities

5.7.2.1   Training and development policies in public universities currently cover both academic and senior library and administrative staff only. There are unclear policies for the training and development needs for the lower cadre of staff in middle grade and grades I – IV. The policies in place address training matters such as:

- Process of applying for study leave
- Criteria of selection of staff for further training
- Bonding of staff in training
- Renewal of study leave
- Funding for training (internally by universities, scholarships; self sponsorship.)

5.7.2.2　Human resources development through staff training abroad has suffered greatly because many staff members do not return to the universities after long periods of study leave. The Board heard that other members of staff leave the universities for greener pastures due to low pay, lack of adequate facilities for research and teaching, and natural attrition through deaths and retirement. Furthermore, highly qualified staff continues to take up positions in key areas in government service, teaching and research in research institutions and other local universities. Individual universities' effort in training and development is thus challenged because of the lack of commensurate funding for enhanced postgraduate training and staff development to fill in the gap. This is a big threat to staff training and development in public universities.

Recommendation 5.36

a)　*Training and development programmes in public universities should be strengthened as top priority for higher education development in the country.*

b)　*Public universities should develop and institutionalize an enforceable bonding system that is legally binding and determinable in case of default by members of staff who undergo training and development programmes.*

c)　*The government should spearhead the development of suitable bilateral agreements to ensure return of talented professionals from other countries.*

d)　*The government should spearhead a debate on reimbursement for education and training expenses in situations where locally trained professionals end up working in developed countries.*

5.7.2.3　The Board established that public universities have training policies for academic members of staff in place. Training policies in universities

should address various aspects of fairness, transparency and accountability in application, selection and award of training opportunities and scholarships. Sentiments expressed to the Board were to the effect that the practice may be different from the written policy and that in some cases there may be favouritism for various reasons. There were many suggestions that the universities should revise these policies to reflect greater fairness, accountability and openness. In addition, there should be provision for appeal and scrutiny through committee systems to ensure accuracy.

Recommendation 5.37

The training and development policies in public universities should be reviewed to reflect greater fairness, accountability and transparency in the identification of staff for training. Any unfairness in the selection process should be forwarded to the complaints channel proposed in chapter eight of this report.

5.7.2.4   The Board found that manuals and training policy documents in most public universities are available in administrative offices but are not provided to individuals on appointment or on regular intervals as per conventional expectation. Further, training opportunities that become available from time to time are not properly communicated to all staff in good time for them to consider and make applications before the given deadlines. The Board was also informed that sometimes staff who are not selected for various training programmes are not informed that they were unsuccessful and why.

Recommendation 5.38

Mechanisms for communicating matters related to training and development of staff in the public universities need to be put in place and made accessible to all staff.

5.7.2.5   The training policies in public universities generally cater for equity with regard to female staff and those with special needs. However, the Board observed a general perception that universities were not adequately catering for the latter category of staff. A good proportion of presentations to the Board indicated that there was need for universities to further enhance affirmative action which will provide for recruitment, development and of female staff and those with special needs.

Recommendation 5.39

   a)   *The Board recommends a training policy that addresses the needs of staff with special needs.*

   b)   *The Board recommends a comprehensive training policy that addresses gender issues.*

5.7.2.6   Other deficiencies in training and staff development policies were reported as lack of a clear description on career paths and the training requirements for staff to move from one grade to next. Furthermore, there is need to incorporate this into the promotion criteria. In addition, training should be relevant to the professional requirements of the staff member's discipline. The Board observes that these critical issues need to be clearly provided for in the training policy guidelines of all public universities.

5.7.2.7   Training and development needs should be identified through institutionalised staff performance appraisal systems. There should therefore be clear criteria for staff appraisal and their measurement to assess research performance, teaching effectiveness and service to the university or community. One of the fundamental questions to ask is the relative importance given to staff performance appraisal amongst different academic activities i.e. research, teaching, services and

administration. Their relative importance is directly related to the importance that these activities are given in fulfilling the mission of the universities. In particular administrative responsibilities, which are often extremely time-consuming, should be considered as valid criteria to be taken into account for a comprehensive evaluation of staff performance.

5.7.2.8   The conventional practice is to have staff appraised by peers, supervisors, students, and past students. The Board observed that staff evaluation programmes in public universities do not fully comply with these criteria.

Recommendation: 5.40

   a)   *Public universities should institutionalize staff performance appraisal systems to identify training needs for staff development.*
   b)   *Public universities should set aside (seven to ten per cent) of the personnel emoluments budget for training and development of staff.*

5.7.3 Staff Numbers and Quality of Teaching

5.7.3.1   Increase in student numbers without a proportionate increase in staff has resulted to staff being over worked and left with hardly any time to engage in any meaningful training, attend seminars/conferences or participate in any other professional and skills improvement activities.

5.7.3.2   High Student Staff Ratios (SSRs) place more demands on the teaching expertise and staff time. Hence, there has been increased concern about the quality of teaching, including the ability to use the new technology (ICT), teacher assessment and development and about how to create appropriate incentive structures for higher performance.

5.7.3.3   Concern for quality has led to a demand for closer links with industry and community, which has had an impact on staffing in some universities. This calls for public universities to introduce training and development programmes that will enable their staff to acquire skills to keep staff in public universities at the cutting edge of changing technologies.

5.7.3.4   With the above factors in mind, some of the public universities are now devoting greater attention to actively managing, analysing staff levels and teaching loads in accordance with their goals and thus training staff in pedagogical skills and devolving day-to-day staff management to faculty or departmental levels.

5.7.4 High Staff Turnover

5.7.4.1   Many qualified academic members of staff from public universities emigrate each year. In most universities, it is impossible to replace departing staff because of financial constraints. In many cases universities find that graduates sent abroad for training tend to remain abroad or join the private sector or quit shortly after their return. The phenomenon of brain drain among the academic staff is real within the public universities. Hence, there is need for public universities to introduce staff training and development incentives to ensure adequate supply and retention of staff.

5.7.4.2   The Board observed that interest, personal initiative, motivation and qualification are important factors for consideration in staff recruitment. Upon identification and recruitment, staff should be appropriately inducted into their chosen careers and given all possible support to settle well within the institution.

5.7.5 Management Training

5.7.5.1 The Board observed that most universities have traditionally not institutionalized management and leadership training to prepare academic staff for management positions within the universities. However, some universities have recently embarked on in-house and other formal training programmes for their staff on leadership, resource management, communication, team-building, customer care, strategic management, ICTs, result-based management, and performance contracts as well as strategic planning, among others. The Board considers such courses to be critically important to staff career development and encourages the initiative.

Recommendation 5.41

The Board recommends continuous and proactive management training programmes.

5.7.6 Postgraduate Training

5.7.6.1 The Board notes that postgraduate training is fundamental to academic staff training and development in public universities. Effective postgraduate training generates a pool from where to recruit teaching staff and thus they should be adequately provided for in all disciplines. The Board found that all public universities offer postgraduate programmes (postgraduate diplomas, masters and PhD). As earlier observed, inadequate funding was the single most important constraint to postgraduate training in all public universities. The other constraints are inadequate facilities and staff to supervise postgraduate students.

Recommendation 5.42

Public universities should put in place strong postgraduate training programmes to support staff training and development among other things.

5.7.6.2   The Board notes that postgraduate students are an important resource that can be used to conduct tutorials, assist in marking continuous assessment tests (CATs) and in supervision of practicals for undergraduate programmes. Where this model is applied, the work load of a professor is reduced. At the same time the postgraduate student gains hands-on experience and confidence in academia through under studying and mentorship by the professor and critique by the students. The Board established that public universities, to a very large extent, do not use this model for training and development of their postgraduate students.

Recommendation 5.43

Public universities should utilise postgraduate students to off-load professor's work, by engaging them in supervision of practical, marking of CATs and teaching tutorials.

5.7.7 Academic Mentoring

5.7.7.1   The Board considers mentorship and supervision of young staff as critical to a successful academic staff training and development. This calls for availability of highly qualified and motivated senior staff to play these roles. Staff upon recruitment should be attached to senior staff members who will mentor, train and develop them along their career paths inculcating academic values that enable them to submit to and practise the virtues of hard work, professionalism and ethical conduct. The Board found this to obtain albeit to limited and varied degrees in

various public universities. It is important to note that whereas some universities have institutionalized student mentorship by staff, similar, efforts were not evident as regards staff mentorship.

Recommendation 5.44

Public universities should institutionalize mentorship programmes for professional development of junior academic staff.

5.8 ACADEMIC STAFF PROFILES AND SUCCESSION

5.8.1 All public universities were found to have staff designations: Professor, Associate Professor, Senior Lecturer, Lecturer, Assistant Lecturer, and Tutorial Fellow. In some universities, the ratios between these staff levels are clearly defined. The Board learnt that there is no rationalized proportion of these grades in the establishment for each discipline/department to ensure succession. Recruitment does not take into consideration the changing environment in terms of qualification for the future and demographic considerations.

5.8.2 The Board learned that there are departments in the public universities with no openings reserved for the training grades. This clearly compromises the ability of universities to adequately prepare for succession through their training and development programmes. The Board further learned that most tutorial fellows are over worked; they are given workloads that in most instances are equal and sometimes greater than that of tenured staff. Many of them are, therefore, caught between completing their postgraduate training, teaching and research.

Recommendation 5.45

    a)   *All public universities should reserve tutorial fellow positions as the base for academic staff training and development.*

    b)   *The teaching load for tutorial fellows should be rationalised with their research load in order to provide adequate time for their training, research and completion of theses within acceptable time frames while at the same time giving them an opportunity to develop required teaching skills.*

    c)   *Tutorial fellows are appointed on one-year contract renewable upon satisfactory academic and research achievement. There should be a limit to the number of years the contract can be renewed depending on the demand and peculiarity of the discipline.*

5.9 STAFF CONDUCT, PERFORMANCE AND RESPONSIBILITIES

5.9.1   Universities are at the pinnacle of the education sector. Stakeholders and the larger national constituency expect them to be at the forefront in exemplary leadership, good governance and strong work ethics in the conduct of their affairs.

5.9.2   The Board noted that the universities have codes of conduct in place but that these do not seem to be enforced. The Board was informed of some experiences of poor work ethics and practices, including neglect of duty by some lecturers which was perpetuated by a *laissez-faire* attitude by the management towards such irresponsible behaviour. The code of conduct gazetted by CHE does not appear to have been domesticated in the universities.

5.9.3   The Board was made aware that majority of lecturers carry out their duties with diligence and dedication. However, the Board was given a few cases where irresponsible behaviour and work patterns were noted. These included instances where some lecturers use outdated

notes (yellow notes), lost and unmarked examination scripts thereby compromising examination credibility, sexual harassment of students, lateness and absence from duty. The Board believes that there is need to deal with such lecturers decisively and in a timely manner. This will not only ensure quality but will also safeguard the reputation of the universities. As lecturers and other workers negotiate for better pay and working conditions, it should be understood that these should be matched with good performances and high sense of professionalism towards their duties.   As already stated, staff at the university are charged with the immense responsibility of molding young people intellectually at the penultimate stage towards maturity. The support they expect from the universities in terms of professional development and advancement, remuneration and other benefits requires that they also reciprocate by demonstrating the highest standards of discipline, professionalism and work ethics. In this regard, the reported cases of sexual harassment, derelict duty and compromised examination processes must be eschewed. In addition the staff should pursue conflict resolution mechanisms that minimize extreme and antagonistic actions in favour of dialogue, compromise and consensus.

5.9.4   Lecturers are part and parcel of their institutions. They should live by the tenets of collective responsibility. For example, most lecturers and other staff limit their participation to their specific duties only. It was reported to the Board that lecturers most often, abandon the chief executives during difficult times such as riots, and driving off at the hour of need. The Board is of the view that lecturers and other staff could contribute more to the institutions by mentoring students and newly appointed colleagues, participating in community service and mobilization of resources. The lecturers are expected to be role models of their students. They are, therefore, expected to conduct themselves

in ways that ensure respect, admiration and inspiration of the students and thereby upholding the image of their respective universities.

Recommendation 5.46

Universities should enforce their staff codes of conduct and regularly review their disciplinary processes and regulations. The published codes of conduct for university staff should be domesticated in all universities.

Recommendation 5.47

Senior staff should also be appraised for promotion on the basis of their contribution to mentoring of staff and students.

Enhancing Professionalism

5.9.5   In many instances, presenters of memoranda complained that lecturers who are lax in their duties or compromise students were not sufficiently reprimanded to ensure that they reform. The Board notes that even where some of them should have been relieved of their duties due to gross misconduct, nothing was done. The Board further noted that in professions such as Law, Medicine and Teaching, one could be barred by the relevant professional body from practising due to gross misconduct.

5.9.6   Teaching in the universities is a profession which aught to be regulated through a relevant professional committee or regulated through a committee that would require each lecturer to be a registered member. In the case of gross misconduct such as loss of examination scripts/results, sexual misconduct, presentation of false certificates, plagiarism, and presentation of students research work as own, would lead to such a lecturer being struck off the register. This would mean that such lecturers should never be allowed to lecture or teach in any educational institution but can seek other employment elsewhere. In

addition to the above, since universities have regulations and policies that govern conduct of lecturers, they should ensure that these are enforced in a just and transparent manner.

Recommendation 5.48

The public universities should work with CHE to develop a scheme of registering lecturers in good standing, and specify types of misconduct which may lead to exclusion from the roll.

5.10 TRADE UNIONS

5.10.1 The Industrial Relations Charter outlines the responsibilities of the government, employers and workers through their trade unions. The widened democratic space which has allowed unions to operate in the universities is a positive development towards making universities autonomous and self-regulating. University staff members are represented by the following unions;

- Kenya Union of Domestic Hotel, Educational Institutions and Allied Workers (KUDHEIHA)
- Universities Academic Staff Union (UASU)
- Universities Non-Teaching Staff Union (UNTESU)

a) Non-Teaching Staff

5.10.2 The Kenya Union of Domestic, Hotel, Educational Institutions, Hospitals and Allied Workers has separate recognition agreements with all the public universities. The union negotiates collective bargaining agreements with each individual university. The agreements are then registered by the Industrial Court. These collective bargain agreements cover junior non- managerial and non-supervisory staff at grades I-IV and the middle grade non-academic staff members in grades A-F are under UNTENSU that was recently registered.

b)   Academic Staff

5.10.3   The academic staff members of all universities are currently eligible to join the Universities Academic Staff Union (UASU), which was registered in 2003 under the Trade Unions Act, Cap 233. The union has been recognized by the Inter-Public University Councils Consultative Forum of The Federation of Kenya Employers which negotiated the first Collective Bargaining Agreement effective from 1st July, 2004. The Collective Bargaining Agreement has already been registered by the Industrial Court. The coverage of the CBA excludes senior management staff including Principals of Colleges, Deputy Vice-Chancellors and Vice-Chancellors whose salaries are determined by the various university councils in consultation with the government.

Recommendation 5.49

University councils should embrace staff unionization and allow sufficient space for the unions to function and flourish in partnership with the other governance units. Management staff should, however, not be active members of any union.

c)   Role of University Staff Trade Unions

5.10.4   The functions of the unions are specified in their respective registration instruments. A critical role of the unions is to ensure that their members comply with the agreed code of conduct. The Board received many views regarding the unionization of staff in the universities. The UNTENSU representatives argued that there is an urgent need to review salary distortions and allowances of UNTENSU members to compensate them for services they render and also bring their pay to comparable levels with their peers in the corporate sector. To facilitate effective management and professionalism, universities were requested to incorporate KUDHEHIA, UASU, UNTENSU, in the decision-making processes.   The UNTENSU also requested to be

allowed to participate in university management organs to articulate the interests of their members.

5.10.5   The emergence of trade unions in universities has had far reaching implications in the management of public universities. University Acts will need to be amended to incorporate recognition of staff unions. UASU argued that it should be represented in the University Council and Senate; the Pension Committee; Health Insurance Committee; Appointment and Promotion Committee as well as in any other ad hoc committee involving the welfare and discipline of academic staff.

5.10.6   Some universities have not signed recognition agreements with UNTENSU. The representatives of KUDHEHIA and UNTENSU stated that they would oppose the introduction of performance contracts since their introduction will change their terms of service from permanent to contract.

Recommendation 5.50

Universities should consider signing recognition agreements with UNTENSU where this has not been done.

d)   The Way Forward

5.10.7   An employee means any person who has entered into or works under a contract with an employer whether on permanent or temporary basis. All university staff members are employees irrespective of the cadres. University management should find a way of accommodating trade unions. They must be aware of the changing trends and willingness to open communication lines in rethinking, re-planning, and reformulating the co-existence of the diverse institutions. Trade unions are now part and parcel of university structures. Since the constitution guarantees Freedom of Association, this guarantee is justified by Kenya being a

signatory to the International Labour Organization Conventions that protect citizens' right of association and assembly.

5.10.8   The Industrial Relations Charter that was reviewed in 1980 issued policy guidelines that gave institutions leeway to restrict top management from being members of a union. This is in line with good management practices. Officers in management should not be members of a union because of conflict of interests.

Recommendation 5.51

The Board recommends that universities integrate good management principles in a congruent way, and work with the unions for the development of the institutions.

> When people become involved in the problem, they become significantly and sincerely committed to coming up with solutions to the problem
> Kurt Lewin (on Force Field Analysis Theory)

5.11 EQUITY AND DISTRIBUTION OF WORK

5.11.1   In its public hearings, the Board heard that citizens of this country expect academic staff in universities to fulfill the three responsibilities of teaching, research and service to the community without compromising the quality, integrity and accountability of university education. To function effectively and make qualitative progress, this professional engagement calls for skill in the necessary balancing act. There is need to put measures in place to ensure that the workload of university staff is fair and that it is likely to bring about the professional fulfillment of university lecturers and professors. Most academic departments in the public universities have regulations determining the minimum and maximum workloads or number of courses or units a lecturer/professor can teach each semester or year. Such regulations often proceed to state the number of years of teaching that must be completed before the staff member can go on sabbatical leave.

5.11.2   While these rules and regulations are laudable, equity or the spirit of natural justice needs to be one of the key principles in considering distribution of work for teaching members of staff. Equity helps to interpret and apply rules and regulations correctly. The Board heard that in several universities, a single member of staff is in charge of a class of over 500 students. Clearly, with such responsibility, the lecturer or professor has no choice but to engage in a "form of teaching that does not go beyond expository methods". With a sole instructor taking charge of students in their hundreds, there is no chance for individual attention or careful evaluation and marking of CATs and examination scripts. Faculties and departments in public universities should, therefore, introduce ceilings on various class sizes and also develop teaching assistant programmes where they do not exist. Such measures will improve the quality of teaching and avoid overworking lecturers and professors. The connection between burn-out and poor productivity has already been made elsewhere. Graduate teaching assistantships offer a splendid opportunity for identifying and developing future university lecturers and professors as well as for reducing the teaching load of professors.

5.11.3   The principle of equity encompasses the natural rights of members of staff who have special needs because of their particular condition. The physical infrastructure of the universities, for example, needs to have in-built facilities that take into full account the rights and requirements of members of staff who are physically challenged.   And while maintaining the principle of equal work for equal reward, the distribution of the responsibilities of teaching, research and community service ought to be acutely aware of the conditions of those with special needs as inspired by the principle of equity.

5.11.4   Social cohesion in any community depends on how effectively the spirit of natural justice is practised. All public universities in Kenya are to be commended for developing strategic plans that chart out the future development of each of these important national institutions.   The principle of equity is at the bedrock on which strategic plans are based. While the public universities have much in common, each has its own distinctive character. Kenyatta University, for instance, applies the principle of equity in such a way that it takes into serious account of the requirements of those in its community who have special hearing and sight needs.

5.11.5   Besides imbalances of staff workloads giving rise to situations where some members were overworked than others, the Board heard several examples illustrating that the principle of equity was being violated in some public universities.   Some academic administrators favoured their friends by allotting them too many self-sponsored classes from which they drew handsome remunerations while less favoured lecturers and professors taught government-sponsored classes that attracted no extra pay. Regulations on sabbatical leave were sometimes breached in favour of some members of staff. The employment of some cadres, especially casual workers, from predominantly one ethnic group in a pluralistic social environment offers yet another clear indication that the principle of equity has sometimes been abandoned.

Recommendation 5.52

a)   *Departments and/or facilities in the public universities should introduce ceilings on appropriate class sizes (staff student ratios of international standards), individual workloads and also develop graduate teaching assistantship programmes where they do not exist.*

b)   Universities are by nature centres of international and national diversity and therefore the recruitment and employment policies should reflect this diversity at all levels.

Recommendation 5.53

The physical infrastructure and programmes of public universities need to incorporate in-built facilities that take into full account members of staff and students who are physically challenged. All facilities should have access for those using wheel chairs and other support apparatus.

5.11   SPECIAL CASE FOR NON-TEACHING STAFF

5.11.1   The Board reiterates that the recommendations severally appearing here cover all cadres of staff (academic, administrative and support staff). However, some specific problems that were raised to the Board by administrative and support staff need to be given priority as universities endevour to improve staff welfare. For example, administrative and support staff reported that they were seldom considered for opportunities for staff development, and that medical and transport allowances were lower than those of teaching staff. Some of them complained that they were not sufficiently compensated for the extra work they did for self-sponsored programmes.

5.11.2   There were also complaints of disrespectful and patronizing and intimidating conduct by some senior academic staff. This may also arise from the descriptions that are used to define some workers and their roles. These include designations as ''mosquito searcher'', ''garbage collector'', ''sprayer'' and ''overhead projector''. These designations are viewed as derogatory and universities should consider friendlier and dignified designations such as environmental health attendant/officer (garbage collector), pest control expert (mosquito searcher) and health technician (sewerage attendant) and

junior/ senior technician (overhead projector). The Board observed that unfavourable and unequal treatment of staff leads to discord, resentment and underperformance while fair and just treatment enhances performance and solidarity. It is in this regard that the Board has emphasized in its recommendations that all matters related to the welfare of staff such as staff development, working conditions, remuneration and allowances, be given equal attention in respect to all staff.

Salary Anomalies

5.11.3   Every year the government declares the minimum wage. However, the Board notes that there are some workers in the universities who are earning less than the minimum wage. When the minimum wage was announced, the universities introduced minimum wage adjustment which is not considered in gratuity payment when staff retires from the university. Another anomaly is that the members of KUDHEIA and UTENSU usually lobby for salaries under different collective bargain agreements; the resulting increases are usually implemented at different rates. For example, the KUDHEIHA recently gained an increase of forty per cent while the universities had increased UNTENSU members by twenty per cent in 2004. The result was that some UNTENSU members who are generally more senior than KUDHEIHA staff are currently earning less than their KUDHEIHA juniors.

Recommendation 5.54

    a)   *Staff unions and university management should work closely with all bargaining groups to avoid skewed salaries increases.*

    b)   *The universities should rationalize the current salaries of support staff to ensure that some members of staff at the lower cadres are not earning more than the supervisors who are at higher grades.*

CHAPTER SIX

MEETING DEMAND FOR KNOWLEDGE, RELEVANT SKILLS AND COMPETENCIES

6.1   INTRODUCTION

6.1.1 The Knowledge Domain

6.1.1.1   Generation and application of knowledge is increasingly becoming the dominant feature and engine for development of the economies and societies of the 21st century. Consequently, higher education institutions are playing a critical role in building capacities for generation, adaptation, processing, dissemination and utilisation of knowledge and innovations for social and economic development. The capacity of the people to learn, acquire knowledge, skills, competencies and appropriate attitudes to enable them to participate competitively and creatively at the national, regional and global levels is, therefore, a critical determinant of the character and rate at which social and economic growth takes place.

6.1.1.2   A major concern in the development agenda is how well institutions of higher education are prepared and positioned to play the triple roles of generating and processing of knowledge, applying that knowledge to create innovations and products needed in the society, and the development of human resources with the requisite know-how and attitudes for effective participation in the rapidly changing society. An essential precondition for development is to build and nurture quality and relevant education which is broad enough to facilitate acquisition of knowledge and skills in humanities, arts, sciences and technology, and which promotes the utilisation of knowledge in solving the challenges confronting the society.

6.1.1.3   Higher education in Kenya is in the midst of the challenge of transforming hitherto traditional institutions and learning programmes into competitive and flexible entities which are responsive to the imperatives of knowledge economy, while maintaining their traditional values and character. This challenge is played into the context of high and accelerating rate of economic growth realised in the last three decades in countries like India, China, Malaysia and South Korea which have invested heavily in transformation of institutions of higher education. While reforms in governance, economic system and private sector investments have played a critical role in the impressive rates of economic development in these countries, it has been argued that the investments made in the development of higher education and the place accorded to science and technology have been pivotal. These countries have made major strides in the eradication of poverty, and have become critical players in global trade. They are also leaders in certain aspects of scientific and technological development. China and India are, in particular, investing massively in research and scientific infrastructure that will inevitably lead to accelerated scientific and technological innovations. The governments of the above countries, in partnership with private sector, are playing a prominent role in building and strengthening capacity for research and development. These countries have systematically directed the efforts of research communities and tertiary institutions into areas of strategic national needs.

6.1.1.4   Recent international experiences pinpoint to the need to give priority to investment in infrastructure, and in building human capacities for generation and application of knowledge for socio-economic development. Crucial to the development of higher education today is how well institutions at this level embrace values of entrepreneurship, competitiveness and flexibility not only in the generation and

application of knowledge, but also in the way learning and teaching is organised, managed and updated.

6.1.1.5   To place high level training and society needs in this broad context, this chapter reviews how the current national, regional and global trends, challenges and opportunities impact on the development of higher education, and considers the role of higher education in modulating the past and emerging challenges. The existing academic programmes in universities are reviewed in order to ascertain their relevance and adequacy in addressing/modulating old, current, and future challenges. Finally, the chapter highlights strategic and knowledge frontiers that need priority research and training in higher education. Measures to enhance national and institutional capacities to face the challenges and seize upon the emerging national, regional and global opportunities in critical areas of development are also highlighted.

6.1.2 Some Characteristics of Knowledge Society

6.1.2.1   The need to provide space and access for constant retraining and acquisition of new skills and knowledge dictated by the fast pace in which discoveries and innovations are taking place in the world is the hallmark of the 21st century tertiary education. Hence, it is not enough to provide for initial access to higher education, but it is necessary to plan for continued learning and access to opportunities to remain relevant and at the cutting edge of emerging innovations and knowledge. The rapid changes in science and technology make today's knowledge and skills obsolete within short periods of time, thereby making it necessary to embrace lifelong learning and constant retooling. In this scenario lifelong learning will be an essential

component of any viable higher education and training system and must be planned and provided for.

6.1.2.2. Two factors that impinge and are critical to strengthening the role of tertiary education in the formation of quality human resources are globalisation and the development of information and communication technologies. Global competition and the information technologies have revolutionized not only the way people learn and work, but also what they learn, where and how they work and communicate. Research enterprises, teaching and learning and application of knowledge in society have been revolutionized by the development and utilisation of ICTs. New knowledge frontiers in areas such as agriculture, biotechnology, genomics, stem cell research, nanotechnology, water and energy require universities to not only revise their curricula in traditional fields, but also to bring on board new fields of study by investing in relevant and up-to-date programmes. Furthermore, increased opportunities for international mobility and employment through outsourcing and immigrant labour, require universities to develop graduates who have the knowledge and skills for enabling them to benefit from the emerging local and international opportunities.

6.1.3 Knowledge for Development in Kenya

6.1.3.1   There is an added sense of urgency in ensuring that the development of human resources takes into serious consideration the need to deal effectively with some of the national problems that still bedevil our communities such as food insufficiency, recurring droughts, disaster management and water scarcity. Other developmental problems include environmental degradation, new diseases, corruption and poor governance, weak community based institutions and under-exploitation

of some natural resources such as fisheries and minerals. Clearly there is a need to strike a balance between training for national and regional competitiveness that comes with increasing regional integration and globalisation, and the need to spread and share with the poor communities the benefits and opportunities that emerge from increased utilisation of modern scientific and technological innovations.

6.1.3.2   Direct employment opportunities by government and the private sectors in Kenya have decreased while the production of university graduates has continued to increase. This fundamental mismatch between production and utilization of human resources is best addressed by training graduates who will have the competencies and creativity to become entrepreneurs in a wide range of areas. Such entrepreneurial graduates will also create earning opportunities for themselves rather than become jobseekers. Some universities in Kenya have already introduced courses on entrepreneurship in order to inculcate the necessary skills and outlook in their graduates. These universities are facilitating and encouraging innovation and creativity for survival and competitiveness in the market. In addition, the ICT revolution engulfing the world has demonstrated that young people with the requisite knowledge, skills, creativity, vision, courage and energy can establish mega corporations such as Google, Africa Online and Microsoft.

6.1.3.3   In considering the above factors, there is need to keep in mind that higher education institutions are not islands, but part and parcel of the national social, economic and political milieu. Hence, issues of eradication of poverty and hunger, economic performance and productivity, educated unemployment, political stability and governance, maternal and child health, diseases like HIV/AIDS and malaria impact a very fundamental way on the capacity of the tertiary

institutions to accomplish their mandates of shaping the development of human resources. These issues offer enormous challenges and opportunities to our universities and other tertiary institutions to rethink critically and reorient their teaching, research and innovation programmes to face up to these societal challenges. Our higher education sector should, therefore, rise up to national calling and expectations to address these and emerging challenges for the benefit of all segments of the society.

6.1.4 The Need for Relevant Skills and Competencies

6.1.4.1 In the development process, human resources are both essential contributors and the end beneficiaries of a successful development strategy. It is important to equip and strengthen human capital with the required knowledge, skills, attitudes and the values that will enable the labour force to exploit the nation's natural and man-made resources productively.

6.1.4.2 The Board is aware of the financial implications in both the infrastructure and capacity building that will be required to implement the proposed new programmes or expanding the existing ones. These financial implications have been highlighted in the chapter on Resource Mobilisation. While the funding required will be substantial, seizing the opportunity to carry out the necessary reforms in training and research will in the long run pay social, economic and political dividends. Failure to seize the current opportunity, we believe, will be more costly in the long run.

6.2 TRENDS IN NATIONAL, REGIONAL AND GLOBAL DEVELOPMENT

6.2.1 The Historical Perspective of Higher Education

6.2.1.1 Tertiary education has made substantial contributions in meeting human resources requirements at critical moments of Kenya's development. At independence when the country needed to Africanize and reform inherited colonial institutions such as the civil service, higher education played its part in producing the personnel needed to undertake the tasks. The academic programmes provided in the then three constituent colleges of the University of East Africa, coupled with overseas training, played a crucial role in building of the human resources that enabled Kenya to negotiate through the period of transition, and subsequent decades. As programmes of the University of E.A were expanded and diversified to meet emerging needs of the region, dependence on overseas education and training became less and less important in the training of high level manpower for the region.

6.2.1.2 During the first two decades of independence, higher education institutions played the role of meeting the manpower requirements, in addition to undertaking critical tasks of adapting the curriculum of the programmes offered to address the urgent needs of nation building and Africanization. The role of higher education at that time was that of mediating between the urgent socio-economic needs of the East African region, specifically to each country. The period was characterized by intense and creative debates on what constituted appropriate content of the courses offered by various departments of the university. Although these debates were most intense in the social sciences and humanities, they were notable in other academic fields as well. African nationalism, dignity, identity and culture as well as socialism were major forces in shaping the debates and the re-

orientation curriculum. Thus, the ideologies of nationalism and human capital had a major imprint on the development of higher education in East Africa and Kenya in particular.

6.2.1.3   At the time of break-up of the University of East Africa in 1970, and the establishment of national universities in Kenya, Tanzania and Uganda the contribution of higher education to national development was well-recognised. The establishment of national universities was intended to enhance national character and prestige as well as to orient them more towards their respective national building priorities. While each of the three institutions had faculties of arts and sciences, there was agreed division of labour in establishing specialised faculties in the constituent colleges.   Medicine and agriculture were retained at Makerere, while veterinary medicine, engineering and architecture were established at Nairobi. The faculty of law was established at Dar es Salaam. The establishment of national universities offered them the opportunity to expand opportunities in terms of faculties and student numbers. In this way, they became responsive and relevant to national agenda and priorities. They also came under increasing political control and interference.

6.2.1.4   The interaction and close relationship between the perceived needs of the country and the development of higher education institutions and programmes characterised the whole post-secondary education in Kenya. The development of national polytechnics, Egerton Agricultural College, the expansion of teacher training colleges including the specialised ones such as the KSTC and KTTC were premised on the contribution they could make to the development of needed human resources. The graduates of these institutions were, therefore, readily absorbed into public sector employment. Relevance of their academic programmes to their work was often a subject of great debate, leading

to creativity and innovations associated with the programmes offered in the initial stages of the development of the institutions.

6.2.1.5   With saturation of public sector manpower requirements and the rise of graduate unemployment in the eighties, sustaining this role of higher education was no longer tenable. The relevance of higher education to meet manpower needs in the light of graduate unemployment has become increasingly challenging to universities and tertiary institutions. Their role in the rapidly changing circumstances is being questioned. This process of interrogation of the role of higher education clearly indicates the need for rethinking how this sector interrelates, contributes to other sectors of the society and responds to current challenges. It is, however, clear that the future of higher education in Kenya is no longer purely that of producing personnel for employment in the public and private sectors of the economy, but more of preparing entrepreneurs who are adaptable and who can identify opportunities and openings at national and regional levels, and work creatively towards realising the necessary innovations and socio-economic changes. This is a challenge not only to providers of education and training, but also to the students who go through such institutions. This marks a new phase in the development of higher education in Kenya.

6.2.1.6   The quantitative contribution of higher education to national development is best judged by the pattern of full-time enrolments in the various degree programmes offered in local universities.   The enrolments between 2003- 2004 are shown in Table 6.1 below. The table reveals that while enrolments in most courses have remained almost static, enrolments in others (such as B.Sc, Engineering, Medicine, Environmental Studies and Tourism) have increased substantially. Some strategic programmes such as Agriculture Education and Dairy Food Sciences reflect declining enrolments.

Table 6.1: Enrolments in Different Degree Programmes in Public Universities (1993-2004)

	Under/Post-graduate/ Diploma	93/4	96/7	98/9	99/00	2001/2	2002/3	2003/4
1	B.A.	4978	5802	4228	5354	5356	5954	6485
2	B.Sc.	2717	4658	3650	4854	4968	5818	6206
3	Commerce (B. Com)	1870	1707	1204	1511	1680	1870	2207
4	Design	114	118	102	100	142	106	116
5	Architecture	186	310	337	338	290	325	341
6	Building Economics	126	125	109	117	136	136	134
7	Land Economics	120	128	126	118	145	144	147
8	Engineering	895	1110	979	1111	1320	1658	1678
9	Medicine	1005	1285	1129	1336	2022	1478	1561
10	Agriculture	171	1086	1125	910	876	866	857
11	Veterinary Science	355	301	207	215	245	332	311
12	LL.B. Law	606	639	627	610	475	661	621
13	Education (Arts)	1753	2558	2268	2478	3065	2176	2110
14	Anthropology	643	543	340	315	331	367	377
15	Computer Science		103	128	130	230	257	269
16	Forestry	118	93	88	140	120	125	121
17	Fisheries	100	84	78	88	155	161	156
18	Wildlife Management	80	51	58	73	92	94	91
19	Horticulture		401	466	526	433	468	476
20	Tourism	81	94	54	84	154	158	153
21	Wood Science Technology	86	50	68	64	101	120	116
22	Production Technology	112	115	116	134	165	175	169
23	Electrical and Comm. Tech	129	141	142	142	174	185	179
24	Information Science	215	166	150	173	202	210	203
25	BE.D Home Science Tech.	181	176	178	175	190	210	203
26	Education	7327	8496	4339	7824	7886	11632	13742
27	Education Technology	188	187	206	210	302	315	305
28	Geography			30	89	105	98	95

	Under/Post-graduate/ Diploma	93/4	96/7	98/9	99/00	2001/2	2002/3	2003/4
29	Economics			63	141	215	220	213
30	Business Management		267	370	687	718	719	713
31	Social, Cultural and Dev. Management	1181	673	760	556	1160	1290	1247
32	Civic and Structural Engineering	40	68	91	113	162	167	161
33	Textile Technology	47	67	82	83	96	98	95
34	Music					30	57	75
35	Animal Production		248	276	316	221	232	238
36	Dairy Food Sciences		108	103	126	80	87	89
37	Environmental Studies	115	290	254	348	277	482	591
38	BE.D Home Econ	329	410		317	276	149	195
39	Fine Arts	53	46		26	30	39	51
40	Chemical Engineering	59	96	88	86	615	120	116
42	Agric Engineering		382	399	407	440	476	489
43	Natural Resources		243	233	273	311	275	489
44	Agricultural Economics		280	277	331	171	260	282
45	Agric & Home Econ		239	256	219	254	137	267
46	Agriculture Education		520	587	707	794	173	178
47	BE.d Science		876	857	888	1046	610	626
48	Food Science & Post Harvest Tech.		83	142	142	899		922
49	Civic Engineering		127	184	124	112		115
50	Elect/Electrical Eng		132	189	127	203		209
51	Mechanical Eng		135	172	117	189	189	194
52	Diploma Courses		526	728	2392	3100	3395	3451
53	Others Courses				553	1236	1581	1706
55	Postgraduate Studies		1735	2099	2909	3275	3076	5691
56	Diploma in Advanced Nursing		53	53	52	141	129	122

Source: Republic of Kenya: Central Bureau of Statistics, *Statistical Abstract* various issues 2003 & 2004

6.2.2 Evolution of Higher Education in Modulating Socio-Economic Trends and Challenges

6.2.2.1   In the sixties and seventies, education and training at all levels played a pivotal role in the supply of skills and knowledge needed for the transition from colonialism to independence and embarking on socio-economic development of the country. Since independence, the government has consistently directed a large proportion of its budget to education and training in order to enhance the relevance and quality of the skills of the labour force. It has also endeavoured to re-orient the education and training programmes to ensure that those benefiting from the programmes have the relevant skills and competencies that match the national needs of the economy, and remove the apparent deficiencies in the education and training systems. Since independence, numerous commissions, committees and task forces: *Kenya Education Commission Report,* 1964 (Ominde Commission); *Employment, Incomes and Equality: A Strategy for Increasing Productive Employment in Kenya*, 1972 (International Labour Organization (ILO) Report); *National Committee on Educational Objectives and Policies, (NCEOP)* 1976 (Gachathi Report); *Report of the Presidential Working Party on Second University in Kenya,* 1981 (Mackay Report); *Sessional Paper No.1 of 1986 on Economic Management for Renewed Growth; Report of the Presidential Working Party on Education and Manpower Training for the Next Decade and Beyond,*1988 (Kamunge Report); and *Sessional Paper No 2 of 1996 on "Industrial Transformation to the year 2020*' among others.) have been set up by the government with mandates to come up with educational and training policies and strategies aimed at addressing the employment and underemployment problems, and accelerating economic and social development. On the whole, the education sector has been challenged to become responsive and relevant to the prevailing socio-economic needs.

6.2.2.2   The establishment of various universities and colleges was inspired and spurred by the need to meet manpower, scientific and technological challenges in the society. The establishment of Moi University and the Jomo Kenyatta University of Agriculture and Technology illustrates these goals.

6.2.2.3   The issue of generating sufficient employment opportunities to absorb increases in the labour force and in particular graduates of the various levels of education system has been at the core of past development plans. In this context, human capital approaches and planning have been adopted as processes whereby the nature, quality, structure and the stock of skilled workforce in the economy is examined and analysed to establish the relationship between demand and supply in terms of the availability of critical skills and competencies within the economy in order to match the two sides of the human resource equation and to evaluate any workforce imbalances, both current and projected.

6.2.2.4   The human capital ideology that dominated thinking of the governments, donors and educational practitioners in the sixties and seventies had enormous influence on the way the functions of universities were perceived and their development guided and outputs planned. Unfortunately, this approach has continued to influence the way universities do their business today, even with clear indications that only a tiny fraction of their graduates get employment in the public and private sectors.

6.2.2.5   The development of higher education in Kenya is in a crisis which manifests itself in various ways, among them inability to mobilize adequate resources to meet the prevailing challenges. This has become a wake-up call that has brought into the fore the need for them not only to be responsive to the market, but also to be innovative. Other challenges facing public universities in Kenya are analyzed in earlier chapters of this report.

Recommendation 6.1

The universities should carry out a comprehensive review to identify obsolete, new and emerging occupations in the various economic sectors so that skills development can be geared towards meeting the current and future labour market requirements.

6.3   TRENDS AND CHALLENGES IN DEVELOPMENT

6.3.1 Economic Trends

6.3.1.1   Kenya's overall economic environment in the 1990s was that of decline due mismanagement of the economy, declining foreign direct investments, declining value of primary commodities and general decline of performance in all sectors. Firms were not expanding, necessitating many Kenyans to leave the country. The highest growth rate of 6.6 per cent per annum was recorded in the period 1964-1973. It declined to an average of 5.2 per cent in the period 1974-1979, 4.1 per cent in the period 1980-1985, 3.2 per cent in the period 1986 -1989 and further to an average of less than three per cent in the 1990s, finally reaching a negative growth by 2000. Since 2003, the rate of economic growth has improved reaching an annual growth rate of 5.8 per cent in 2005. It is expected that this trend will continue in 2006.

6.3.1.2   Although there has been impressive growth in the economy, it is notable that unemployment and poverty still remain major national challenges. The Board notes that a strong economy generates resources for higher education that enables the issues of access, equity, relevance and quality to be given more attention and, on the other hand, creates increased demand for skilled labour and innovations from institutions of higher learning (see Figure 6.1).

6.3.1.3   The above trends in the performance of the economy need to be understood in the context of internal and external factors and in particular the oil crisis of the 70s and 80s which led to increased foreign indebtness and painful structural adjustment programmes. Adverse economic conditions have been

exacerbated by the unpredictable changes in weather patterns over the last several years.

Figure 6.1: Inter-relationship of Strong Economy and Education
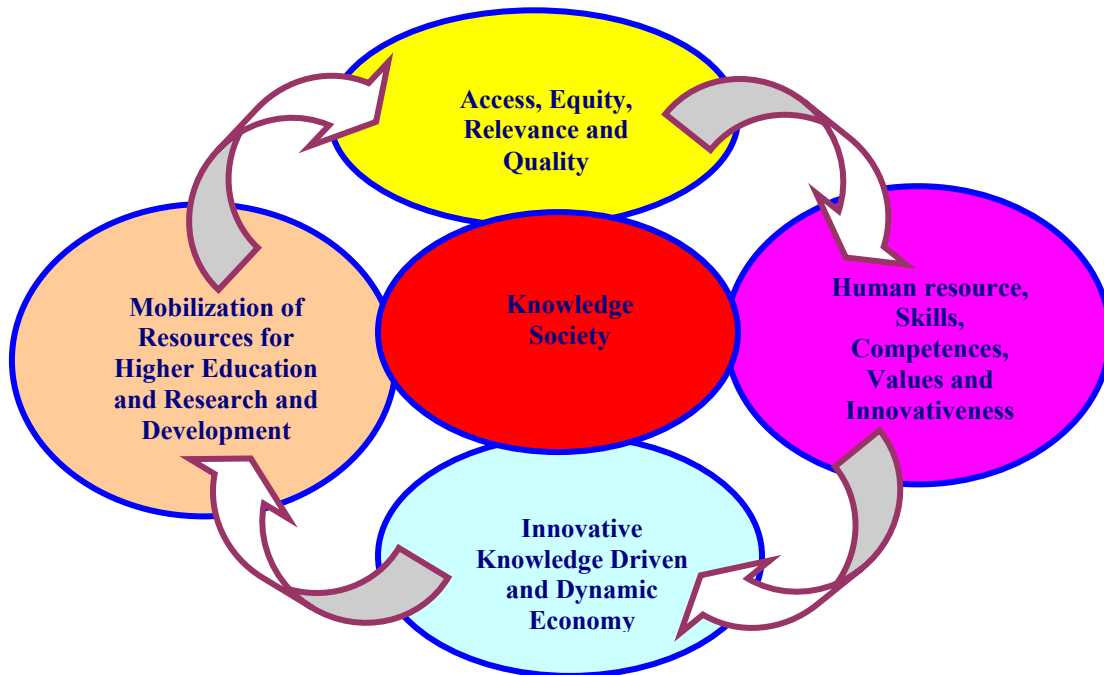
Recommendation: 6.2

The government, in partnership with industry and national universities, should undertake regular training needs assessments for current and future human capital requirements.

6.3.2 Population Trends

6.3.2.1   Kenya's development record in the last two to three decades has not kept pace with population growth and resultant labour force increases. Consequently, the proportion of the population living under the poverty line has risen considerably. Kenya population consists of predominantly the youth. This puts substantial strain on the economy in the provision of education, employment, food and health service.

6.3.2.2   Rapid population growth is the bane of economic development. It leads to high dependency ratios and a large and growing youthful population that needs basic education and health care. These factors limit the scope for upgrading of educational and training facilities, increases health and other social expenditures, while at the same time reducing direct investments in productive activities. Thus the economy fails to create employment opportunities and to deal effectively with serious environmental concerns such as populations' encroachment on water catchments areas, forests and marginal lands.

6.3.2.3   Available inter-census data reflect the extent of Kenya's demographic transition. The inter-census growth rate stood at 3.3 per cent per annum in 1965 - 1969, and rose to 3.8 per cent in 1970-1979. The population growth declined to 3.4 per annum in 1980-1989. There was a further significant drop in population growth to 2.9 per cent in 1990-1999. The past high population growth posed diverse socio-economic challenges such as higher levels of poverty, rural-urban migration, and increased pressure on government provision for education and health services. Consequently, trends in declining population growth, as well as the decline in total fertility rates, are welcome signs of the onset of Kenya's demographic transition.

Recommendation 6.3

The government should develop statistical projections of the number of people who will be seeking tertiary education in the future, based on projected population and economic growth.

6.3.3 Poverty and its Challenges

6.3.3.1   The incidence of poverty in Kenya was forty-seven per cent in the rural areas and twenty-nine per cent in the urban areas in 1994. The number of persons living below the poverty line was 11.5 million, out of which 10.3 million lived in rural areas and 1.2 million in urban areas. The overall poverty level increased

to fifty-two per cent in 1997 and to fifty-seven per cent by 2004. The 1997 Welfare Monitoring Survey III results pointed to a deepening of the poverty crisis since 1994. As a result of the high incidence of poverty, access to education got adversely affected with many students dropping out of the education system.

6.3.3.2   A critical outcome of the high incidence of poverty is the diminished access to education which has inflicted many young people. Consequently, the greatest challenge for Kenya is to eradicate the twin problems of poverty and unemployment through wealth creation and the provision of productive and sustainable employment for the rapidly increasing labour force. These require increasing investment opportunities in the key productive sectors of the national economy. It is noted that the government has come up with the Poverty Reduction Strategy Paper which addresses the issue comprehensively.

6.3.3.3   As already indicated, Kenyans' poverty levels show that a greater proportion of those affected are in the rural areas. This rural population is still largely engaged in subsistence agriculture and livestock production. Higher education could significantly spur economic growth by undertaking research that would result in increased yield per unit area of land, and particularly in the promotion and development of dry land farming. However, the Board notes that in spite of the centrality of agricultural production in economic growth, this is the very area in which university enrolments are falling and has fewer formal employment opportunities for graduates. There is need, therefore, to revamp current programmes, increase access, and align this with increased utilisation of graduates of agricultural sciences.

6.3.3.4   Another problem that has increased poverty in rural areas is lack of water both for domestic use and irrigation. Indeed, during the frequent droughts, the question many Kenyans keep asking is why the country has not invested in

water harvesting and conservation in dry regions. There is need for more emphasis to be placed in water technology and conservation in higher education and training.

6.3.3.5   Apart from the critical emphasis on introducing programmes to address problems of ''the poorest of the poor'', there is still need to focus on emerging priorities in health, environment, education, and other service industries. The new area of ICT must also be given priority as it is likely to continue to be the prime mover of social and economic development. As the Board has indicated in chapters two and three, to carry out this effectively, there will be need to enhance access and quality, diversify programmes offering and inculcate innovative and entrepreneurial outlook in institutions of higher education. Again, it is necessary to emphasize the imperatives of strengthening linkages between higher education institutions and industry to ensure relevance and cutting edge skills and competences that keep pace with the world of work.

Recommendation 6.4

Universities should revisit their missions to incorporate, where appropriate their roles in implementing the poverty reduction and creation of wealth strategies.

6.3.4 Trends in Employment Patterns

6.3.4.1   Since the 1970s, the government has expressed its concern about the structure of employment patterns. The 1999 Integrated Labour Force Survey revealed that unemployment in the country stood at 14.6 per cent, with an urban unemployment rate of 25.1 per cent and rural unemployment rate of 9.4 per cent. Two factors have contributed to the prevailing high unemployment rates in the country. First, the weak performance of the economy, has largely constrained growth in wage employment in the private sector during the last decade. Second, public sector reforms have led to restrictive employment, retrenchments and privatization of non-strategic government institutions.

These reforms resulted in downsizing of the Civil Service and government parastatals which used to be the biggest employers in the country.

6.3.4.2   Government policies towards wealth and employment generation are aimed at providing a favourable environment for private investments and job creation. The Board is of the view that measures should be taken to promote investment in the productive enterprises that will provide increased employment and generate incomes. These measures should include the promotion of a work culture and enterprise. An environment should be created that rewards efforts, skills, competency and productive initiatives. As a result, these would give individuals, groups and the community at large the responsibility for wealth and employment creation and further, stimulate change from the attitude of job-seeking to that of job-creating.

6.3.4.3   Many university graduates are either unemployed or underemployed while some are employed in jobs for which they have not been trained. There is great loss to the country when the university graduates remains unemployed or underemployed. First the government and parents have invested more in university graduates than for students who leave schools at lower levels. Second, there are intellectual and skill losses as the graduates are denied the opportunity to contribute to national development through utilising the skills and knowledge they have acquired. Third, the highly educated lot may, out of frustrations and other reasons resort to crime to survive, thus jeopardising social cohesion.

6.3.4.4   The relative imbalance between the number of graduates seeking employment and those that the economy is able to absorb is one measure of the relevance of education and training.   The imbalance arises from inadequate knowledge about future labour market conditions, which induce candidates to choose fields of study which do not have future market

potential. It also arises from excess of qualified graduates over the available employment opportunities.

6.3.4.5   The projected demand of academic programmes at a specified time should assist potential students and universities to shift their interests towards areas where employment opportunities are likely to emerge in the future. This projection should indicate, which occupation will be in excess demand or supply, and consequently which academic programmes may be candidates for expansion, contraction, abolition or establishment by the universities.

6.3.4.6   A high GER reflects inability of the national economy to fully absorb trained manpower, an indication that there are more educated and skilled personnel available in the market place than the economy can absorb. This inflation of skills could be counterproductive, unless the trend is reversed. Misuse of graduates also reflects inability of the market to absorb innovation. The graduates are unable to trigger growth in the economy by using knowledge and skills to add value to whatever resources are available in the nation. Appropriate skills are also valuable in prospecting for technologies in the global market place. The prevailing high graduate unemployment arises from the current skills imbalance. The knowledge economy is characterized by high rate of technological and skills obsolescence. The key and strategic skills are those pegged to technological trends and technology cycles. The capacity to anticipate technology and production changes and prepare for them is the basis of skills relevance. The Board noted that many local universities are reorienting themselves to the job market by offering courses that are perceived to be in high demand.

6.3.4.7   One way to reverse the high graduate unemployment is to shift national focus from dependence on agricultural production of commodities to industry, technology and knowledge economy. The government is addressing these challenges by creating policies and strategies for industrialisation by 2020.

The strategy commits to provide an enabling environment for sustainable economic growth through the promotion of agriculture, expansion of physical infrastructure, increased resource allocation to technological development and management and investment in given resource allocation and accelerating growth in micro and small-scale enterprise development. The Board notes that these policy pronouncements emphasise the need to target areas that can make speedy contribution towards economic recovery. These include removal of barriers for free inflow of foreign investment, investing in farming, exploring markets for agricultural products, enhancing bilateral trade agreements such as AGOA and increased leverage on WTO for a fairer playing ground in world commerce. In addition, the Board is convinced that there should be substantial investments for expansion and reforms in the higher education and training sector.

Recommendation 6.5

a) *Relevant training programmes targeting areas with high employment creation, development of entrepreneurial skills and poverty alleviation should be established in local universities.*

b) *The strategy of industrialization by 2020 should be revisited with a view to specifying the role of skilled labour and knowledge workers in achieving the targets of wealth creation. In the meantime university researchers should identify growth areas and the skills needed thereof.*

6.3.5 The Stocks and Dynamics of International Flows of Skilled Labour

6.3.5.1 The expansion of facilities for university education in order to respond to the challenges of access and equity should reflect the anticipated national, regional and international growth of skill demands for various professions. The relative growth of current academic programmes to meet future demands will depend on projected market demands. Future skill needs that cannot be met via current programmes require the establishment of new academic programmes.   The main determinant of skills mix in the future will be

advances in production systems, reflected by the anticipated development trends in the various productive sectors and provision of services. This approach constitutes a key option to the strategic broadening of access to university.

6.3.5.2 While there are university graduates with skills which are not needed in the local labour market, the Board noted that they are sought after by other countries. Immigration policies of many countries are favouring skilled workers who will contribute to meeting skill shortages in their economies. A majority of skilled emigrants especially those from the developing countries are destined for industrialised countries. According to a recent World Bank study the number of highly skilled emigrants from Africa successively increased from an average of 1800 (1960-1975) to 4400 (1975 - 1984) and finally to 23000 (1984 - 87) per year. (Ozden and Schiff- ed., *International Migration, Remittances, and The Brain Drain, 2006*).

6.3.5.3 The study has pointed out that international mobility of skilled workers is a crucial issue to developing countries, since their share of tertiary educated workers remains low compared to that of high-income countries. This averages about 800,000 migrants per year. The labour force with tertiary education in the world's about eleven to thirteen per cent of the total world labour force, while highly skilled immigrants represented about thirty four to thirty-six per cent of all OECD immigration stocks in 2000. Sub-Sahara African countries exhibit a high rate of skilled migration which averages about 12.9 per cent. The share of skilled workers among residents is only 2.8 per cent, while the share among immigrants is 42.6 per cent. The respective figures for East Africa are 18.6, 1.8 and 40.8 per cent respectively.

6.3.5.4   The study further indicates that the portion of the African immigrants to the USA with tertiary education is above fifty per cent of the total immigrants from the continent. Eighty per cent of Kenyan immigrants to the USA have high skills. The portion of migrants with tertiary education who obtain skilled jobs is a determinant of the average quality of the migrants' qualifications. The portion of migrants from South Africa (62), Kenya (52), Nigeria (40) and Ethiopia (37) represent the relative likelihood of obtaining a skilled job for those with bachelors' degree from the country of origin. These migrants play a fundamental role in the generation of knowledge stocks and patents for their host countries. The Board noted the recent trends of trained teachers in science and arts being sought after by countries abroad.

Recommendation 6.6
a)   *A study should be undertaken to determine the skilled labour in the country, and the precise rate of outflow of skilled labour from Kenya, skills possessed, countries of destination, and the value of the skilled labour.*

b)   *A framework should be developed to facilitate countries receiving such skilled labour to provide aid specifically for capacity building.*

c)   *Kenya should develop a policy on export of human capital.*

6.4   INVESTMENT IN KNOWLEDGE IN STRATEGIC SECTORS OF THE ECONOMY

6.4.1 Agricultural Technologies

6.4.1.1   Hunger and malnutrition remain the principal concerns of many nations and a main cause of human suffering. The first goal of the Millennium Development Goals (MDGs) is to eradicate poverty and hunger, by reducing the proportion of people who suffer from hunger by fifty per cent by 2015. The ability of a nation to feed its population is the basic fundamental obligation of all nations. The inability of a nation to feed its people may be due to poverty, drought, unpredictable climate variations or poor governance. The major emerging issues concerning food production include the introduction of Genetically

Modified (GM) foods, food production and storage inefficiencies, over-dependence on cash crops such as tea, coffee and horticulture, and neglect of indigenous cropping systems. The ultimate goal of a sustainable agricultural system is to improve crop yields and achieve food self-sufficiency by using improved varieties of seeds, storage and processing. The ultimate goal is to reduce dependence on imported food aid.

6.4.1.2   Agriculture contributes over forty per cent of export from Sub-Sahara Africa (SSA), thirty per cent of GDP, thirty per cent of foreign exchange earnings and seventy to eighty per cent of employment in Sub-Sahara in Africa. In Kenya, a large population of poor people depend on agriculture for livelihood and food security. Paying attention to agriculture will stimulate economic diversification and growth in the wider national economy. Agricultural sector is, however, threatened by inhospitable climate and poor infrastructure which constrains farmers from being linked to the international market. The cost of agricultural inputs and outputs also increases due to poor transport.

6.4.1.3   Opening up of agricultural growth in Kenya will depend on measures that address the various risks in the sector such as development of high yielding crop varieties and improved storage technologies. Other measures will include irrigation, research, innovation and extension, all of which have been shown to improve agricultural productivity elsewhere. For example, only four per cent of available land in SSA is irrigated, compared to forty per cent in South Asia. The rate of growth of land under irrigation in SSA is between 0.5 to 7.0 per cent per year. Irrigation reduces poverty by eliminating the uncertainties inherent in rain-fed agriculture and enhancing crop intensity.

6.4.1.4   The Board noted that in spite of the critical role of agriculture in poverty alleviation, programmes in the subject have not been strengthened in local universities, and academic programmes on agriculture remain some of the most important but yet unpopular academic programmes in public

universities. For example, it was noted that whereas there is a combined capacity of 119 for B.Sc Agriculture in two public universities, only 20 candidates applied for agriculture as a first choice in 2005! There is no precise policy on strategic academic programmes such as agriculture in Kenyan universities. There is, therefore, a clear need to establish mechanisms to rejuvenate agricultural faculties and facilities since this is an assured route for spurring industrialization in a sustained manner. The Board noted that there is sufficient capacity in the country to undertake cutting-edge agricultural research especially in KARI and public universities offering agricultural programmes.

6.4.1.5 It was suggested to the Board that the popularity of agricultural programmes in local universities has declined because of the attitude adopted by students towards "conventional" agricultural technologies. It is, therefore, clear that a change in attitude is necessary in order to encourage more university students to enter into agriculture and related academic programmes. The change of attitude could be encouraged by focusing on food processing downstream activities such as the development and manufacture of novel meat, dairy, fruit, seed and vegetable food products by fermentation or similar processes. Such new products could be suitably enriched and easy to preserve and distribute for local consumption or for export.

6.4.1.6 There is need to triple production of the main staples, such as legumes, maize and rice. We need programmes that teach food processing, storage and marketing issues related to agricultural produce. Kenya produces the bulk of its foodstuff from only ¼ of its entire land mass because the rest is semi-arid. Dry land farming systems such as those developed in Israel will lead to additional bread baskets. Other skills required include knowledge of exportation procedures and negotiations, in order to reap maximum benefits from such organizations as World Trade Organization and AGOA. The

programmes at the universities must reflect these new trends if they are to be relevant.

Recommendation 6.7

An immediate screening should be undertaken to establish the basis for the low enrolment rate in agriculture and related disciplines in local universities, and propose how the programmes should be rejuvenated to take into consideration new developments in the sector.

6.4.2 Water and Sanitation Technologies

6.4.2.1   The degree of access to water in Kenya is determined by the direction and level of urban/rural balance, transportation/distribution, and recharge. Lack of water is often associated with famine and diminished survival of livestock. Water is also essential for irrigation, generation of power and re-afforestation. The quality of natural water in Kenya has generally gone down, as evidenced by the increasing use of bottled water. Shortage of water is also reflected in declining dam capacities leading to erratic power generation, diminishing ground water level and reduced lake water levels resulting in reduced fish harvest. Shortage of water is also a source of conflicts among communities, nations, and between human beings and animals.

6.4.2.2   Environmental change has negatively impacted on water availability and water quality in Africa. Forty-two per cent of people in Africa (300 million) do not have access to safe potable water while sixty per cent do not have access to basic sanitation. Global climate change arising from industrial activities in developed countries and emission of greenhouse gases has affected weather patterns extraterritorially, while local sand harvesting threatens the continued and secure availability of water in some vulnerable regions of the country. There is also limited national capacity to manage water, especially during

periods of floods which often give rise to water-borne disease such as, cholera.

6.4.2.3   Unsafe water and poor sanitation cause many preventable diseases such as intestinal worms, cholera and diarrhoea. Access to clean water and good sanitation are, therefore, pre-requisites for increased productivity, dignity and quality of life for all. In most cities, as much as fifty per cent of the water is lost or unaccounted for, mainly through leakages arising from corrosion and unauthorized tapings. Universities can play a leadership role by focusing increased attention to various aspects of development of water sector. This can be done by establishing new academic programmes on water sciences or enhancing existing programmes.

6.4.2.4   Some areas of Kenya, such as the arid and semi-arid ones are most vulnerable to water stresses. These water deficient regions are also, the most vulnerable to desertification, famine, hunger and other forms of poverty. Water harvesting management and storage technologies in these areas are the first steps in achieving balanced development and uplifting the standard of living in these areas. In some areas the problem of water scarcity is so acute that it threatens peaceful co-existence of various communities, health and economic development. Introduction of relevant programmes in water conservation, harvesting and utilisation will go a long way in alleviating some of these problems and enhancing economic development especially in the ASAL districts.

6.4.2.5   The Board noted that there is limited capacity for training in water harvesting, storage, engineering and management technologies in local universities. There are only two university programmes with a combined annual intake of 50 candidates in water engineering.   The importance of water and meteorology is so critical that these must stand on their own as strategic

disciplines instead of being imbedded as subsets within geography, geology or engineering.

Recommendation 6.8

a) *The existing water engineering programmes in local universities should be expanded and the curricula updated to incorporate aspects of water harvesting, management, storage, irrigation, purification, distribution and recharging. Such programmes should be based in the proposed universities in North Eastern and Eastern provinces of Kenya.*

b) *The impact of global warming, desertification, sand and tree harvesting, mining, urbanization and utilization of chemicals in agriculture on water availability and purity should be determined and the costs to the nation established.*

6.4.3 Medical and Health Technologies

6.4.3.1   The principle relating to MDGs on health include stopping and reversing the spread of malaria and HIV/AIDS, reduction of child mortality rate by two thirds and improving maternal health by seventy-five per cent by 2015. In addition to these traditional health challenges, there are other diseases associated with lifestyles such as heart diseases, diabetes, and hypertension which compound the health burden in our nation.

6.4.3.2   The government is obliged to provide affordable health care to a growing population. The main challenges which the government faces in this sector include the high and rising costs of drugs which are mostly imported, the increasing trend towards privatisation of healthcare services, and the tendency of critical professional health workers to migrate and work outside the country. Locally, there is a high concentration of health professionals in urban areas, leaving the rural areas deficient of healthcare providers. In spite of these challenges, however, Kenya's healthcare facilities are regionally competitive, and Kenya remains an acknowledged centre for providing

specialized health services to patients from our neighbouring countries Somalia, Rwanda, Uganda and Sudan.

6.4.3.3   With respect to training and research in health sciences, the Board noted that there are currently two full-fledged medical and nursing programmes at Nairobi and Moi, with a combined annual intake of 273. In addition to these programmes, the universities are now offering courses in other health related medical programmes. Unfortunately, a large number of health professionals who graduate from these universities migrate to work elsewhere, while other programmes such as dentistry and pharmacy have limited capacities to satisfy the national needs. In addition, private universities such as Baraton University and Aga Khan University Hospital, are offering some health-related programmes. The enrolment is, however, low.

6.4.3.4   Medical programmes are also the most expensive university programmes to implement, with a premium unit cost in excess of Kshs 500,000 per student per year. This unit cost may be reduced significantly if the capacities in these programmes are increased, since the academic facilities and teaching hospitals are already available. With respect to the teaching hospitals, the Board received views that there is some tension between the universities and the Ministry of Health regarding the management of the teaching hospitals. The Board noted that there is an immediate need to establish a framework for managing the university hospitals in the country. The hospitals could, for example, be managed by the respective universities who should get a block grant from the Ministry of Health for providing referral services to the public. Furthermore, the number of teaching hospitals should be systematically expanded at the provincial level, depending on the availability of human resource capacity.

6.4.3.5   The Board was further informed that most drugs used in Kenya are developed, manufactured and marketed by multinationals. Some critical

drugs (for example anti-retroviral and new anti-malarial) are in the control of monopolistic companies who determine pricing and marketing strategies. The Board also noted that there has been limited effort to explore the use of alternative treatment regimes such as using and mainstreaming indigenous plant extracts. Recent global developments such as the use of communications technology for diagnostics and provision of long-distance treatments (telemedicine) have not been introduced and mainstreamed in most of the institutions. Furthermore, the incorporation of indigenous medical knowledge into modern health delivery practices has finally come of age. Kenya possesses a wide spectrum of herbs which comprise an extensive biodiversity with potential for wealth creation. Kenya has a competitive edge with respect to natural products from plants for use as new and valuable pharmaceuticals.

6.4.3.6 Finally, the Board noted that Moi and the Aga Khan universities were embarking on very innovative and problem-based learning techniques designed to produce medical professionals of the future. Furthermore, the Board recognises with appreciation the cutting edge research being undertaken at the University of Nairobi on HIV/AIDS jointly with local and foreign institutions. The Board recognises the participation of international development partners and foundations such as the Bill Gates Foundation in facilitating capacity building in innovative research.

Recommendation 6.9

a) *The capacity of the existing medical programmes at Moi, Nairobi, Aga Khan and Baraton universities should be determined in order to establish the optimum number of students who can be effectively trained within the existing facilities and where expansions can be carried out.*

b) *Innovative teaching and training techniques using ICT and problem- based approaches should be explored.*

c)   *Establishment of regional medical training campuses using the facilities in existing provincial and district hospitals.*

d)   *A legal framework should be developed for establishing the ownership, management and utilization of university hospitals in the country.*

e)   *Intensified research efforts should be undertaken on alternative treatment regimes such as herbal medicine.*

6.4.4   Technologies to Improve Infrastructure

6.4.4.1   A fundamental and extensive barrier to socio-economic growth and poverty reduction is poor infrastructure. Poor transport, energy and communications infrastructure impact negatively on agricultural produce and provision of services such as health, education and water. The value of goods and services provided is directly correlated to the cost of infrastructure. A development strategy, which focuses on improvement of infrastructure catalyses the national economy by creating employment, facilitating the delivery of goods to the local markets and for export.

6.4.4.2   The construction of infrastructural facilities such as roads, dams and bridges has tended to rely on traditional technologies and materials sourced from abroad. In spite of the cross-cutting input of infrastructure to development, there are no universities with specialized programmes on energy, transport and construction materials as academic programmes or as research specialties. There is a visible absence of all-weather access roads in most rural farming communities, and hence there are limited incentives to carry out research on alternative construction materials for all weather roads or use of alternative technologies for dam construction or water storage technologies. A focus on infrastructure should form a basis for viable material sciences programmes in some universities in Kenya.

Recommendation 6.10

The government should carry out an assessment to determine the need for establishing university training and research programmes on infrastructure, mining and materials sciences in a number of local universities.

6.4.5   Energy

6.4.5.1   Another gap in the infrastructure sector is the absence of any academic programme focusing on energy studies. Currently, Kenya relies on fossil, geothermal and hydropower for energy generation. The international focus on Middle East region is mainly because the region has the greatest share of the world's energy source - oil. This commodity plays a pivotal role in developed and developing economies as was underscored by the upheaval it caused during the oil crisis of the 1970s. Since then the costs of energy has never fully stabilized impacting on the cost of transportation and production of goods and service. Today's, rising prices pose the greatest challenge to Kenya's economic gains. The country continues to import all the fossil fuels used at a cost about thirty per cent of the national GDP. There is an urgent need to provide skills in oil exploration, energy conservation and above all undertake research on newer and more cost effective energy alternatives.

6.4.5.2   Energy is a necessary and fundamental input into national development. Unfortunately, industrial energy has mainly been based on fossil fuels, and electricity is generated through hydropower. These sources of energy are clearly unsustainable in the future, since the fossil fuels are imported at high cost, while hydropower is dependent on uncertain rainfalls. The rest of the world is shifting its energy dependence from fossil fuels to renewable sources, which include solar, wind, geothermal and biomass. Such a diversified mix of energy resources would ensure an equitable and balanced distribution of energy, and enable rural communities to access power for their household needs, and for powering small-scale enterprises in the rural areas in order to create employment and add value to local resources. Universities

should, therefore, craft a niche in the comprehensive development and revival of solar, wind, geothermal, biomass and small hydropower generating plants. Universities are also the ideal institutions for playing a prominent role in observing and analyzing development such as nuclear energy in other parts of the world, and accessing how these developments will impact on our own local energy needs and safety.

6.4.5.3   The world trend in energy mix is shifting from reliance on fossil fuels to more reliance on environmentally friendly sources of energy such as wind, solar and biomass. Kenya has not fully identified energy as a critical research and development agenda. Furthermore, strategies for development of skills required for prospecting and mining energy minerals such as crude oil and coal have not been developed. Consequently, academic programmes based on infrastructure and energy studies have not been introduced in universities in Kenya. The Board is of the view that there is need for universities to develop capacities for research, development and innovation in these strategic areas and this should not ignore coal and nuclear as sources of energy for Kenya's economy.

Recommendation 6.11

a)   *The universities in collaboration with government and private sector should establish training opportunities and develop research and innovative centres on energy studies.*

b)   *The universities should develop capacity for assessing developments on nuclear and coal as sources of energy for national policy formulation.*

6.4.6 Culture and Development

6.4.6.1   The level of national development has generally been based on material progress and measurable parameters such as literacy rates, life expectancy and per capita incomes. Limited consideration has been given to cultural

dimensions and value systems as indicators of development. The continued measurement of the level of development by mainly economic parameters tends to exclude cultural and other indices of human development. This could undermine cultural identity, dignity and some income generation opportunities. Tourism, for instance will shift from predominantly wildlife to more sophisticated levels of cultural engagements such as dance, music, dress, food and identity. Cultural identity and normative values are especially threatened by the vigorous one-way flow of cultural influences from the West, which are systematically threatening to replace existing cultural norms and values.

6.4.6.2 Global entertainment products have tended to marginalize local entertainment and creative production. There are limited facilities for sustained systematic celebration of national cultures in local universities. There is an enormous potential for universities to develop viable academic and research programmes on national languages, theatre, music and dance, oral literature, African cuisine and historical heritage. Such programmes should focus on cultural renaissance, national unity and dignity of people of Kenya, enhancing normative values and ameliorating the emerging identity crises. National languages, cultures, ethics and values should be important components of university curricula, but not seen as items to be celebrated on a few dedicated nights or weeks.

6.4.6.3 One key aspect in any culture comprises its community's attitude to time. If culture is understood as patterned and shared human behaviour, then the manner in which members of a particular cultural group understands time and utilizes it has a relationship to the development of that community. The Board received presentations on the poor time management in the universities and the consequences this practice has on the quality of education and on overall national development. Several submissions expressed satisfaction that in the last two or three years, there have been very few closures of public

universities. These presentations noted that public universities are now graduating their students on schedule, as has been the consistent practice in private universities. The cumulative result arising from improved time management by institutions of higher learning has translated into better economic performance and boost of individual and national morale.

6.4.6.4   While there has been improved time management in the public universities as evidenced by timely graduations, the Board received complaints that effective teaching does not often begin on time at the beginning of the semester. Instances were cited where some lecturers provided no instruction two or three weeks into the semester and no make-up arrangements were provided. At times classes begin late and end early. Despite the publication of university calendars and official programmes, events are not always held according to a strict time frame. As noted elsewhere in this report, while presently undergraduates are likely to graduate on time, many postgraduate candidates do not receive their degrees and diplomas on schedule. In some institutions of higher learning time, a resource which when lost can never be gained, is often wasted with far reaching negative implications for individuals, institutions, communities and the nation.

6.4.6.5   Education is incomplete without, *inter alia,* training and forming students on time management. Without imposing one particular category of time-thought as the only valid practice, our universities need to form students who focus not only on the past but also on the present and are capable of planning competently for the future. Paraphrasing the African philosopher John S Mbiti, a speaker in one of the public hearings submitted that for most of our university students "time is a two-dimensional phenomenon, with a long *past*, a *present* and no *future.*" Comprehension of outline and detail, precision and accuracy, imagination and discipline ought to be hallmarks of a holistic education.

Recommendations 6.12

a) *Universities should introduce courses that socialize students on culture, history and governance, communication, ethics, philosophy and development as a foundation for any university programme.*

b) *Universities should continue to develop, strengthen and utilize national languages in learning, cultural activities and outreach programmes.*

c) *Modern university education, incorporating training and discipline on time management at both individual and institutional levels, should enable students to celebrate the past, to live in the present, and to plan for the future more effectively.*

6.4.7 Peace, Human Security and Development

6.4.7.1   Conflicts in the neighbouring countries have had major impact on developments in Kenya. The inflow of refugees, arms and prohibited drugs threaten not only the economic welfare but also the health and security of local people. Unrestricted inflow of illegal arms and refugees threaten peace and security of Kenyan citizens and their assets such as livestock. Another cause of insecurity is poverty which arises from unemployment and is amplified by the gap between the poor and the rich in Kenya. The country recognises that security is a precondition for national and regional development and hence it places high premium in the country's capability to maintain peace and security within its borders and the region. This explains to a large extent its expanding role as regional peacemaker and mediator.

6.4.7.2   Kenya has been called on many occasions to provide peace-keeping personnel in Africa and elsewhere. The country has maintained disciplined and professional armed forces which have played significant roles in promoting peace in Africa and elsewhere. The army has participated in UN and OAU peace-keeping missions in trouble spots in Africa (Sierra-Leone, Namibia, Zimbabwe, and Eritrea/Ethiopia) as well as elsewhere in the world (Bosnia, East Timor etc). There will be added pressure on Kenya to play a

greater leadership role in promotion of justice, peace and security in the years to come. This underscores the need for local universities to offer fully-fledged courses on peace, security and conflict resolution studies as an academic discipline, and to undertake research in this field. We appreciate the efforts some universities are making in this direction. The Board sees this as a window of opportunity for local universities to assert Kenya's pre-eminent role by establishing programmes for training experts with the relevant skills in this sector.

Recommendation 6.13

a)   *There is an urgent need to establish in one or two universities strong programmes on peace studies, conflict resolution, human security and reconstruction of societies recovering from war and internal strife.*

b)   *Universities should also build strong research and human resource capability in fields of security, management of conflicts and peace building.*

6.4.8 Other Regional Trends and Developments

6.4.8.1   Each nation has principal regional and international responsibilities, which are based on shared respective aspirations on threats and opportunities for the future of its region. The themes of regional markets and interests are dominant in most regions of the world, and nations are competing to belong to these regional groupings because of the benefits to be realized from the synergy, which arises from belonging to a large market. Within the Eastern African region, regional political integration and the emergence of regional markets (COMESA, East African Community, etc) are the dominant themes. Active participation in these initiatives is a priority, since Kenya is committed to the revival of the East African Community and to regional integration. This has potential for generating bigger regional markets for Kenyan professionals, commodities and services. Such integration also generates a regional approach to utilization of resources, water, electricity, and ICT infrastructure.

6.4.8.2   There are also regional threats to consider, especially those arising from the internal conflicts in some of the countries in our region. Kenya continues to be seen as a key player in resolving the conflicts in Somalia and Southern Sudan, among others. But conflict resolution is not an end in itself. The affected countries must be assisted to reclaim lost time and opportunities, and embark on urgent re-construction of their infrastructure and human resource development in order to lay the foundation for socio-economic revitalization for the future. Training and skills have to be developed in the area of peace building, reconstruction and regional security. Furthermore, a culture of decision and policy-making on the basis of regional considerations should also be developed based on deep knowledge and understanding of the region.

6.4.8.3   In order to achieve the aspirations of each region, a regional champion must emerge to modulate the direction and speed of the process. The champion should commit resources, assume leadership and articulate a regional vision and mission. The most effective way for a country to serve this regional role is to provide opportunities for training the required human resources, and to serve as a depository of skills for pushing and sustaining the region's agenda. The regional champion must have tertiary education institutions, which are credible and boast of quality academic programmes. The Board is of the view that in order to strengthen and secure social- economic welfare of Eastern Africa region, Kenya must continue to play key reconstruction roles in Somalia and Southern Sudan. Local universities should be the principal actors in the provision of these services.

6.4.8.4   The EA region has become a major area of exploration of oil, gas, and other industrial and precious minerals. The challenge is to develop prospecting, mining and processing skills in this area, and provide opportunities for employment and research. Much of the tragedy of African's economic

development lies in the fact that its mineral wealth of gold, diamonds, oil and other industrial minerals has enriched the west leaving communities that are within reach of these resources to wallow in poverty. One reason for this is that there are very few Africans with the exploration and mining skills for these minerals. Kenya should aim to build capacity in these areas to ensure that its citizens take the lead in exploration and the mining processes. The government would then invest in importation of the required equipment only.

Recommendation 6.14

a) *Universities should provide leadership in strengthening regional institutions, and collaboration in utilization and sharing of common resources.*

b) *Universities should continue to strengthen Kiswahili language as a vehicle of regional cooperation.*

6.4.9 Other Global Trends and Developments

6.4.9.1 The brain drain phenomenon has had a major impact on the Kenyan economy. The movement of highly skilled professionals to seek employment elsewhere is brought about by the poor pay and working conditions in the home country. The emigrating professionals are usually expensively trained by the time they move to developed countries in the West. On the other hand, due to graduate unemployment, individuals in different fields are moving out of their countries of origin in search for greener pastures. Kenya is, for example, being compelled to allow a substantial number of trained teachers to teach in other countries within the region.

6.4.9.2 A major feature of globalization is increased competition for services and goods. It is also characterized by liberalization of markets, and opening up the economies of developing countries. The role of universities is to generate knowledge and create capacities in order to sustain the country's competitiveness. Through ICT and liberalization, the provision of Higher

Education in any given country is no longer a preserve of local universities. Any institution in or out of the region can provide education across the borders. A major category of workers in the modern economy has become knowledge workers thus increasing demand for higher education.

6.4.9.3   Developed countries are investing heavily in research and development to maintain leadership and competitiveness in the global economy. China, India and South Korea have also taken research and development as key priorities and are devoting increasing proportions of their GDP for this purpose. Other developing countries like Kenya should likewise focus on investing in selected sectors of the knowledge economy in order to be credible players in the world economy. To do so there is need to develop skills for prospecting and adaptation of new technologies from other countries to meet their economic needs.

Recommendations 6.15

a)   *Higher education institutions should team up with other research institutions in the country to form a "National Observatory" to keep track of major trends in economic, social, political, scientific, technological and innovative developments at national, regional and global levels, and advise the government and other stakeholders accordingly.*

b)   *To facilitate dissemination and application of knowledge emanating from higher education institutions at the highest levels of policymaking, implementation and monitoring in the country, the "National Observatory" should be represented at national strategic agencies such as the National Social and Economic Council, the National Council for Science and Technology, the Kenya Bureau of Standards, the Communications Commission of Kenya and Kenya Investment Authority, among others.*

6.5   ROLE OF UNIVERSITIES IN MODULATING FUTURE TRENDS AND CHALLENGES

6.5.1 Relevant Education and Skills

6.5.1.1   Education and skills are deemed to be relevant if they are pertinent, applicable or utilizable in workplaces, and in dealing with day-to-day issues. Education is relevant if it provides knowledge, values, attitudes and skills that enable those educated to negotiate their way in life and manage in the maze of human existence and development. However, it is very challenging to determine the degree to which the learning and teaching that goes on in education and training institutions is close to, or approximates what is needed at place of work and in life. The common approach is to approximate the level of educational attainment, which corresponds to certain job categories in the labour market. Professional education and training more closely matches the knowledge and skills needed to perform certain jobs and tasks.

6.5.1.2   In situations where employment opportunities are available, the matching of education and training to the available jobs is often not necessary. What is crucial in such a situation is not the skills and knowledge a person may have before recruitment but rather, the basic education attained and the opportunities for the potential worker adapt to changing environments. Where the labour market is saturated, employers are selective of skills and know-how, which the worker is expected to bring to the workplace, and, thus often insist on high academic qualifications. This will not be a measure of competence and appropriateness of the skills a person may have, but more as a device of selection.

6.5.1.3   During the initial decades of Kenya's independence, employment opportunities in both public and private sectors were plentiful for those who had high school and higher education. Most of these opportunities did not require specialized skills and knowledge for recruitment. In the professional

categories, the opportunities were more pronounced as not many Kenyans of African origin were trained in the professions.

6.5.1.4   With increasing graduate unemployment, university education has been perceived and often criticized as being irrelevant and failing to produce the skills, competencies and know-how needed by employers. The critical issue is whether institutions of higher learning other than professional programmes are intended to produce graduates who primarily meet specific needs of employers, or who are adaptable and trainable once in the workplace. The consensus points towards a university education which promotes creativity, analytical skills and ability to learn in changing circumstances. Hence emphasis needs to be placed on the quality of education provided and the trainability of the graduates. There is therefore the need to re-think the concept of relevance in higher education in the 21st century knowledge economy.

6.5.1.5   The establishment of new academic programmes in public universities in the last ten years or so has been driven by the demand to produce graduates who possess specific skills relevant to market demands. Their establishment has not been based on an *ab initio* strategic analysis of the type and qualities of the graduate (knowledge, skills, competencies and values to be produced for the Kenyan, regional or international markets). Relying solely on market forces as the driver for introducing new academic programmes could compromise some fundamental tenets of university mission, such as the search for truth, generation of new knowledge, preservation of culture, and promotion of national unity. Furthermore, perception of the market as the principal indicator of which programmes to mount could lead to commercialization of university education and produce graduates with limited knowledge and skills. Such graduates may not have the necessary competencies to navigate the rapidly changing circumstances.

6.5.1.6   Table 3.6 in Chapter Three shows that there are currently about 150 degree programmes in the public universities in Kenya. Many of these programmes have been established recently in response to the changing demands for skills and competencies in the market and workplace. The increasing utilization of the general BA and B.Sc degrees in order to target new and specific market segments has led to overspecialization.   This increased overspecialization reflects two consequences: First, the average number of students per degree programme is decreasing in some programmes. Second, graduates, tend to have limited exposure to aspects of general knowledge which define the operational space and the human conditions within which to practise the skills gained in the university.

6.5.1.7   As seen from Table 3.6, the enrolments and admissions into some of the new academic programmes are relatively low. Such programmes are obviously uneconomical to manage as independent entities, since the number of students registered does not warrant the staff and facilities invested in the programmes. Some of the arts-based programmes, which are deemed uneconomical, include music, fine art, and some foreign languages. Furthermore, an enrolment in some of the new science courses such as actuarial sciences, statistics, biology etc fluctuates between ten and fifteen students, making them uneconomical to run.

6.5.1.8   The rapidly changing social, economic, scientific and technological circumstances lead to the prevailing obsolescence of skills and knowledge obtained in colleges and universities. How then, can we ensure that what is taught and learnt in these institutions is made pertinent and anticipatory of what will be appropriate in the future?

6.5.2 Characteristics of Future Graduate

6.5.2.1 The 21st century is a period of rapid social, economic, scientific and technological changes. Knowledge is becoming obsolescent at a speed that has no parallel in history and skills requirements for the workforce are changing rapidly. What one knows and can do today will not necessarily be applicable tomorrow because of the rapidly changing circumstances of knowledge society. What is needed for each graduate is the ability to learn and discern the changes in the society and adapt accordingly. The working conditions are also changing, requiring mobility from one job to another and location of where the work is done and available. The challenge facing higher education policy-makers and the learning institutions that want to be critical players in the knowledge society is how to prepare adaptable citizens of the knowledge society in highly globalizing and changing world.

6.5.2.2 A citizen with the capacity to navigate the world of the future should possess the following competencies:

- Ability to learn and master the art of continuous learning and acquisition of new knowledge and skills i.e a graduate who sets on a journey of lifelong learning;
- Ability to think critically and analytically, and to handle and synthesize knowledge from different disciplines and sources, one who is trainable, creative and eager to learn and to become multi-skilled;
- Be well-grounded in a broad and general knowledge on humanities, arts, sciences and technology, and able to interrogate the ethical and moral dilemmas of modern development;
- Deep appreciation and respect of the rich cultural and religious diversity at national and international levels;
- Broad and in-depth knowledge in a specific discipline or profession, which serves as the platform for further learning;
- Literacy and mastery of ICT operations /applications;
- Communication and writing skills;

- Entrepreneurial outlook, ability to seize upon opportunities to be productive, and to perceive possibilities that exist, and;

- A risk-taker, ready to tread frontiers of what is not visible at the present, dream and make things happen.

6.5.3 The Foundations of Learning

6.5.3.1   The graduate of the 21st century should be well-rooted and anchored in a strong and firm foundation of broad general education that takes into consideration the context in which the student originates and the challenges likely to be faced.

6.5.3.2   This type of education should mold the students' thinking to appreciate the best human values and heritage, give grounding in the national historical, cultural, social, economic, technological and development and governance of institutions. Higher education should expose the student to the continuing interface of the local and the global developments. This type of education would allow the student to transverse the boundaries of various disciplines to explore how all-human knowledge interacts to shape thinking and the world in which we live and work. The essence of this education is to give the learner the appetite to explore, critical appraisal of all knowledge and learning experiences with a view to being adequately and creatively prepared for a world that is rapidly changing.

6.5.3.3   The purpose of this broad foundational education is to prepare the graduate to play a creative and proactive role in the society. In some countries, this kind of preparation is known as liberal education. The Board notes and appreciates that some universities are providing this kind of education as compulsory first year common units. Universities should build on this experience in conceptualizing and strengthening this type of education.

6.5.3.4   The Board would like to encourage an informed debate on the objectives and vision of the envisioned broad education. What should constitute the content (curriculum) and what material and human resources would be required to implement it? How and when would this type of learning be dovetailed with other academic programmes? What delivery methodologies and what weightings should be given in awarding a degree? Obviously, broad consultation, partnerships and debates are required to give this type of education the status, content, quality and the platform it deserves.

6.5.4 Characteristics of Higher Education for the 21st Century

a)   The Entrepreneurial and Developmental Tertiary Education

6.5.4.1   The national, regional and global challenges cited above call for a responsive and dynamic landscape for higher education. Such a landscape should embody and be characterized by proactive institutions, which should have major impact on the direction and magnitude of socio-economic change. The critical area that should be addressed in light of the rapidly changing landscape of higher education in response to the changing human conditions is to make universities more entrepreneurial. This means that the universities should assume more fundamental responsibilities in the economic transformations of nations. The government and private sector should be in the forefront in the expected transformation. This can be accomplished via a set of actions including the following:

- Expansion of opportunities to cater for more people at the tertiary level to provide them with diversity of skills, competencies and knowledge for scientific and technological development;

- A holistic and integrated development of tertiary education that balances output of degree professionals with technicians, technologists and craftsmen. This calls for the development of a comprehensive, complementary and diversified education system in terms of skills and knowledge requirements;

- More commitment to the generation of knowledge with a strong emphasis on investments in research, dissemination of innovative ideas and products, and orientation towards application of knowledge;

- Building and strengthening mechanisms that facilitate the utilization of research results in creating new products and processes;

- Creating opportunities for lifelong learning, learning from multiple sources, thinking critically and creatively, renewing and building capacities, updating qualifications and utilization of work experiences in consideration for access to further training and education;

- Enhancing the possibilities of moving from workplace to tertiary institutions for further learning and acquisition of skills. The trademark of any tertiary education should be its aptitude for building capacities for trainability and infuse positive attitudes towards acquisition of new skills and knowledge and readiness to utilize;

- New mechanisms for admission to tertiary institutions through recognition of prior learning and acquired competencies and other relevant criteria;

- Ensuring strong and enforceable mechanisms for quality assurance and recognition of qualifications;

- Proactive in promoting application and creating links with the private sector;

- Promoting technology parks and incubators, change and renewal of curriculum, creating opportunities of internships for lecturers and students;

- Having systems of incentives and recognition for innovators and those on the cutting edge of scientific and technological development;

- Locating new universities in areas where they can be catalysts for development of new industries and knowledge, and lead to utilization of local resources;

- Reform process to upgrade the existing institutions to provide for new skills and knowledge and establish new institutions in areas where they are relevant and open up new opportunities.

- Maintaining a healthy and strategic balance between natural sciences and social sciences.

- Fostering fundamental changes in values and attitudes that promote good governance, ethical behaviour and accountability in government, private sector and the society in general. Thereby creating an environment for partnership, innovation and development.

Recommendation 6.16

In view of the emerging challenges, local universities should revisit and review their missions, visions and strategic objectives in order to capture the essence and characteristics of the entrepreneurial and developmental university of the 21st century.

b) University Education and Skills Development

6.5.4.2   The Board established that one way in which the relevance of university education in Kenya can be assessed is through the demand for graduates by employers. Relevance can also be judged by the quality of research conducted and utilization. If the relevance of programmes is to be judged on the employability of its products and research outputs, then it follows that this must be of the highest quality. Something is judged to be of relevance to each social group, if it is available to them in the first place. In this regard, if higher education is not available to the majority of women or certain groups within the nation then, the question of relevance to them is immaterial. Hence, chapter two on access and equity has stressed the need for inclusive policies to embrace and cater for national diversity. Elsewhere, the Board has recommended that universities should introduce the most marketable programmes while not ignoring programmes that may not be marketable but

are vital for enhancing national identity and interests, cultural development, democratic practices and human dignity and overall wellbeing of the society.

Recommendations 6.17

   a)   *Universities should carry out regular training needs of industry and orient their training programmes to the future needs of industry and other productive sectors.*

   b)   *The government, in consultation with industry should undertake sectoral skills inventory studies and the projected manpower requirements which should be widely disseminated to universities and tertiary institutions for their use in planning their training programmes. This information should also guide human resource development policies and strategies.*

   c)   *There is a need for the government to continuously update the Kenya National Occupational Classification Standard (KNOCS) to take account of changing skills and technology.*

6.5.5 TRANSFORMATION PROCESSES TOWARDS THE 21ST CENTURY HIGHER EDUCATION: LINKAGES WITH OTHER STAKEHOLDERS

6.5.1 Interaction and Linkages with Secondary Schools

6.5.1.1   Elements of discontinuity constitute a major disconnect between high school and university experiences. Discontinuity in educational experiences is also observed in the transitions from university to industry and from tertiary institutions to universities. Universities are, therefore, obligated to minimize this discontinuity and ensure that the various transitions are achieved efficiently.

6.5.1.2   The Board observes that the role of higher education institutions, especially the universities can be enhanced and their mandates carried out more effectively through linkages with secondary schools. The Board is of the view that there should be strong linkages with KIE in curriculum development to ensure continuity, consistency and depth of curriculum content from

secondary to university level. Other areas where there should be partnership and continuous dialogue include character formation among students as well as drug and alcohol abuse education, and HIV/AIDS programmes and sports. This will ensure continuity in curriculum relevance and synergy content and improve the quality of undergraduates being admitted to universities.

Recommendations 6.18

c)   *A partnership between secondary schools and the relevant educational bodies and agencies such as KIE, KNEC, Kenya Secondary Schools Heads Association (KSSHA) and tertiary institutions should be created to enhance and enrich the transition from secondary to other levels.*

d)   *The Biannual Conference and the Chancellors' Court that have been recommended in this report should be utilized as avenues to strengthening this partnership.*

6.6.2 Linkages between Higher Education, Training and Labour Market

6.6.2.1   Many presenters to the Board decried the fact that a number of graduates were not being employed in spite of the massive investments in their education both by households and the government. One of the reasons given is the mismatch between education and training, and the world of work. The Board noted that sectoral imbalances in the supply and demand of skills could be reduced if analyses of future human resources requirements were undertaken more frequently (at least every 5-10 years) through periodical labour force surveys. Tracer studies and graduate labour market surveys should also be regularly undertaken by universities in partnership with the government and other stakeholders. To achieve the national social and economic objectives, the government in partnership with the private sector needs to initiate a number measures that are necessary to match education and training programmes with the needs of the emerging markets for knowledge and skills.

6.6.2.2   Studies on the emerging economies such as Singapore, Korea, Taiwan, Brazil, India, and China, indicate that these countries have raised the skill content of their labour force resulting in accelerated technological development, high productivity, rapid and sustainable economic growth as a result of creating incentives and engagement with multinational corporations. This has also enhanced technological transfer, and innovations in their economies. The engagement with foreign capital and corporations has also spurred research and development leading to remarkable advancement in scientific and technological developments. These experiences need to be studied closely in Kenya with a view of learning and benefiting from foreign investments and enterprises in the country.

6.6.2.3   The knowledge-based economies as is exemplified by the achievements of the Asian Tigers is increasingly dependent on a range of disciplines in the social and natural sciences, and on information and communication technologies. Integration of knowledge is, therefore, necessary in dealing with complex socio-economic problems of modern societies. Transformation of the workforce through multi-skilling and flexible work teams empowers workers to be more receptive to practical applications of science and technology in the various economic sectors like agriculture, industry and services sector.

Recommendations 6.19

a)   *Universities in partnership with the government and the private sector should establish and strengthen inter-institutional linkages between universities and industry in the development of curricula. Industry-university liaison committees should be set up to ensure regular review of university programmes, promote their relevance and quality in the light of rapid scientific and technological advances, and skills requirements.*

b) *The liaison committees should develop frameworks for Instituting incubator training and programmed industrial attachment for university students and staff as an integral part of their training.*

c) *The government should undertake to:*

    i) *Develop appropriate policies, measures and incentives to accelerate transfer of technology and skills to domestic firms, through engagement with foreign enterprises and creative utilization of benefits that accrue from foreign direct investment, and*

    ii) *Provide appropriate incentives to technology-based sectors by establishing a technology development fund at concessionary rates of interest to local investors and universities to encourage them to invest in new technologies for accelerated technological advancement in the country.*

6.6.3 Technical, Industrial, Vocational Entrepreneurship and Training (TIVET)

6.6.3.1 Education and training in Kenya has evolved over the last forty years in response to changing global events. Policy reforms have been undertaken focusing primarily on education: primary, secondary school and university education. In the process, technical and vocational training has not often received adequate attention in policy reforms and allocation. Yet skills and competencies imparted in technical and vocational training are perhaps more critical to national development than any other resource. It is against this realization that the government has embarked on major reforms in TIVET.

6.6.3.2 The government recognizes the importance of TIVET in developing the necessary critical mass of manpower with skills needed for national development. It also recognizes the need to provide those training in TIVET institutions with high quality know- how through relevant curricular.

6.6.3.3   The Board is of the view that there is need to facilitate, through technical education, the acquisition of broad knowledge, basic and practical skills applicable to a number of occupations within a given field so that the individual is provided with a strong foundation to pursue   technical areas as well as opportunities for lifelong learning.

6.6.3.4   The Board notes that although, a lot of expansion in terms of student enrolment and training opportunities has been witnessed in the TIVET sub-sector over the last 40 years, not much has been achieved to spur off industrial growth and employment creation. Our TIVET system has not been adaptive enough to meet the challenges of the rapid changes of social, economic or technological nature taking place within the public and private sectors. This state of affairs may be attributed to many unresolved issues that have hampered the development of an effective TIVET system. Key among these issues is the mismatch of skills taught and skills demanded by the industry. There is also lack of funds and dynamic, flexible and market-driven curriculum structures, content and development framework.

6.6.3.5   The Board was informed that to enhance the quality and relevance of training, the government has utilized the services of a team of consultants to undertake a survey, in collaboration with industry and TIVET institutions in order to develop instrument for improving performance. The project involved the development of the skills inventory; training needs assessment and the preparation of the curricula framework, providing for an all inclusive quality assurance system and credit transfer.

6.6.3.6   The Board is of the view that to achieve the objectives of KESSP, it will be necessary to adopt the strategies proposed by KESSP as well as the proposals of the Skills Inventory and Training Needs Assessment Survey. Graduates of TIVET institutions should be provided for an alternative path for accessing higher education and training up to degree levels. This will entail

not only creating opportunities for national polytechnics to offer degree level qualifications while retaining the present mandate but also allowing middle-level and other TIVET institutions of the same caliber to do the same. There is also need to review the current delivery mechanisms in all TIVET institutions to include mandatory on-job training to enhance quality and relevance of training as part of the academic programmes.

6.6.3.7 There should be mechanisms for linkages and credit transfers to facilitate horizontal and vertical mobility with industry and higher institutions. There should be also active involvement of all stakeholders from industry and professional organizations in the development of specialized training programmes.

Recommendations 6.20

a) *The curriculum in middle-level colleges should be reviewed immediately and at least once every four years to match technological changes and challenges of globalization.*

b) *Occupational classification in industry should be improved and harmonized to be in line with the changing patterns of skills and technologies.*

c) *Vocational training institutions should be well-utilized, funding and human resource capacity enhanced including youth polytechnics.*

d) *Universities should recognize and give due credit to courses offered by post- secondary institutions and institute. There should be flexible in the admission of students from such institutions to university programmes. CHE should facilitate this credit transfer and recognition.*

6.6.4 Directorate of Industrial Training (DIT)

6.6.4.1 The Directorate of Industrial Training was established in 1971 as a government department within the Ministry of Labour and Human Resource

Development when the government amended the Industrial Training Act (Cap 237) to make provision for the regulation of training of persons engaged in industry. The same Act created a National Industrial Training Council (NITC) and Industrial Training Levy Fund.

6.6.4.2   The DIT spearheads the integration of industrial training at all levels to produce skills necessary to accelerate economic development and employment creation in Kenya. It aims at securing the greatest possible improvement in the quality and efficiency of industrial training and to ensure an adequate supply of properly trained human resource at all levels in industry by harmonizing industrial training curricula, examinations and certifications. DIT also inspects training institutions for approval and registration, and ensures efficient administration of the industrial levy fund and the reimbursement of the costs of training.

6.6.4.3   In addition to the above tasks, the DIT serves as the secretariat of the NITC, and is responsible for trade testing and certification; curriculum development, administering and managing the training centres in Nairobi, Kisumu, Mombasa and Athi River. DIT runs structured apprenticeship training programmes where employees attend sandwich courses at one of the DIT training institutions and then spend most of the time at the company gaining practical experience. Due to changes in technology, there is need to upgrade some of the existing equipment, train and upgrade the staff especially at graduate and post-graduate levels. The Board noted that Kenya Textile Training Institute needs to acquire equipment to establish a knitting section.

6.6.4.4   The NITC has established tripartite sectoral training committees to oversee training in specified sectors. Four other committees have also been set up to examine and monitor training areas of general nature. The training committees are set up under each industry, which identifies the training needs and skills needed and draws up a training scheme.

a) Industrial Training Levy Fund

6.6.4.5   The NITC facilitates sharing of training costs between employers through the Industrial Training Levy Fund.   DIT grants permission for training and registers training contracts. It receives and processes request for training and pays reimbursement claims to employers. The levy inspectorate section ensures that there is compliance in levy collection.   The trends in levy collections and reimbursements between 1999 to 2004 are shown in Table 6.1 below:

Table 6.2: The Trends in Levy Collections and Reimbursements (1999 – 2004)

Year	Levy Collected (Kshs)	Reimbursement (Kshs)
1999	150,196,567.00	73,413,804.00
2000	128,864,273.00	97,166,515.00
2001	132,619,551.00	74,875,256.00
2002	105,247,433.45	85,359,670.00
2003	127,478,657.10	75,600,159.00
2004	145,699,990.85	67,677,435.00

Source: Directorate of Industrial Training, 2005

b) The Industrial Attachment Pilot Project

6.6.4.6   The Industrial Attachment Pilot Project (IAPP) was launched on 21st September 2004 and is coordinated by a unit within the DIT. The project is designed under the mandate of the NITC to ensure "… the greatest possible improvement in the quality and efficiency of training of the personnel engaged in the industry" (Section 5A of Cap. 237). Experience gained from this pilot project will be used as a basis for improving existing National Industrial Attachment Scheme. The project underscores the importance of the industrial attachment as a vital component of training at all levels. It provides trainees with an opportunity to acquire and sharpen knowledge, skills and attitudes from a real work environment. The pilot project runs for eighteen months and targets a total of 1800 attachments, ten per cent of them being teachers.

Table 6.3: Target Vs Actual Number of those attached as at September 2005

Level	Target	Actual
Craft	931	391
Technician	455	485
Technologist	234	255
Lecturer	180	6
Total	**1800**	**1137**

Source: Directorate of Industrial Training, 2005

6.6.4.7   The Board noted that the government has approved the restructuring of the operations of the National Industrial Training Council and Directorate of Industrial Training to effectively address the changing needs of Industrial Training. Under the restructuring programme, DIT will be transformed into a semi-autonomous government agency, to give it the necessary operational financial autonomy. The Board is of the view that the National Industrial Training Council has tremendous potential to generate revenue to finance its own operations. For this to happen, it would be necessary to put in place a levy system that collects more funds, is more predictable and is able to ensure prompt reimbursement of training costs.   These changes would strategically position the council to spearhead industrial training for economic prosperity.

c)   Vocation Training in Youth Polytechnics

6.6.4.8   Youth polytechnics were purposely set up in the late 1960s to offer skills training to primary school levers for self-employment and to stem rural-urban migration. Currently, secondary school leavers are also attending youth polytechnics to acquire skills. Over 300,000 primary school levers miss secondary school placement annually due to limited capacity. With the introduction of free primary education, this number is expected to increase,

hence greater demand for training at this level. The Board noted that there is no clear national policy on youth polytechnics.

Recommendation 6.21

a)   *Sectoral committees of the National Industrial Training Council should be strengthened to undertake training needs assessment, maintain skills' inventory and competency profiles, undertake curriculum development of each trade within the sector, establish, monitor and evaluate training standards within the proposed national qualifications and certification framework.*

b)   *The National Industrial Training Council should avail a portion of the Industrial Training Levy funds for strategic research in universities and other tertiary institutions.*

c)   *DIT should also provide adequate incentives to employers by providing them with supervision grants. Employers should also be indemnified for insurance cover by the sponsoring institutions.*

d)   *DIT should also issue guidelines to all training institutions and should ensure compliance.*

e)   *All training institutions should meet the cost of staff involved in supervising, monitoring and evaluating attachment for their students.*

6.6.5   Role of Higher Education in Research and Development

6.6.5.1   A major contribution of university education to national development is through conducting research and ensuring the utilization research findings to improve certain crucial areas of economic development. Kenya in particular needs research to enhance food security, deal with emerging diseases such as HIV/AIDS as well as existing scourges like malaria. Other areas that continue to adversely affect the country's potential for economic advancement such as governance, corruption, insecurity, conflicts and violence need also to be researched.

6.6.5.2   The Board was informed that the crucial mandates of universities have been curtailed by inadequate funding of research, lack of adequate equipment and facilities, the heavy teaching workloads and lack of incentives to explore and experiment with new and innovative processes and ideas.

6.6.5.3   Utilization of generated knowledge and innovations has also remained elusive due to the lack of adequate and appropriate mechanisms, processes and arrangements for the dissemination of research findings. The absence of effective instruments to protect intellectual property is a major hindrance in this field. Over the years there has been a decline in the level of research undertaken due to limited funds from local sources. Universities and research institutions have increasingly been dependent on donor funding to meet their research requirements. It is recognised that high level of dependency on donor funding has limitations in meeting national research agenda. The Board also notes that the country does not have a national research and development policy. Such policy when articulated should be supported by allocation of an increasing proportion of the national budget for this purpose. Table 6.3 below shows the proportions of GDP which a number of selected countries are spending on research and development.

Table 6.4: Expenditure on Research and Development of Selected Countries

Country	Year	R&D (as % of GDP)
China	2004	1.44
Egypt	2000	0,19
Germany	2004	2.49
India	2005	0.85
Uganda	2001	0.81
Israel	2004	4.46
UK	2003	1.89
Japan	2003	3.15
USA	2004	2.68
South Korea	2003	2.64
Singapore	2004	2.25
South Africa	2001	0.76

Source: UNESCO Institute of Statistics, Paris, 2005
Note: Kenya expenditure on R&D is not indicated in the above source.

Recommendation 6.22

a)   *The government should allocate at least 1.5 per cent of the GDP for competitive research and development by 2015.*

b)   *A viable national science, technology and innovation policy should be developed and be based on lessons learned from emerging economies such as China, Malaysia and India.*

c)   *The capacities of research facilities of various universities and research institutions should be assessed in order to establish the extent to which they fulfil their mandates and determine their impact on national development.*

d)   *A revitalised National Council for Science and Technology (NCST) should take a leading role in spearheading the articulation of national policy and agenda, coordinating the activities of various research institutions, the universities and the private sector to foster collaboration and create partnerships between these institutions, the universities and the private sector.*

e) *A national mechanism for wider dissemination and application of research findings should be established in order to enhance implementation and commercialisation of innovations.*

6.6.6. University-Industry Linkages

6.6.6.1 University-industry linkages are crucial for ensuring relevance of programmes and research as well as for updating faculties on the latest developments. Interaction between academia and industry has been rather restricted in Kenya, in the past, possibly because of the differences in values and attitudes, lack of appreciation of each other's abilities, skills and needs, and the absence of economic compulsions. There is a great need for university-industry partnership.

6.6.6.2 There are various ways in which universities and industries can collaborate. Universities can set up and provide data on facilities, equipment and expertise available in the country for utilisation of industries and other stakeholders. Universities could also provide information on ongoing research projects; provide consultancy and testing and certification services to industry. Small and medium industries could also benefit from universities' advice on adoption, maintenance and improvement of technologies that they need in their operations. Universities and other tertiary institutions could also enhance skills and competencies of manpower by providing tailored programmes for technicians, scientists, managers and engineers as well as by developing specialized continuing education programmes.

6.6.6.3 Industries can collaborate by giving endowments, supporting research programmes, availing sophisticated and costly equipment, and providing financial support for research and development as well as funding for capital development. Through these linkages they could enrich curriculum development by informing universities of the crucial and current trends in industry, participate in teaching programmes by availing experts on part-time

basis and providing hands-on training through internships and part-time work to students and sabbatical attachment selected faculties.

6.6.6.4   The lack of strong linkage between universities and industry has led to the present situation where: members of faculty, in general, do not have adequate industrial experience or exposure to keep them abreast on new developments. This problem is compounded by lack of adequate provision for continuing education in the universities and other tertiary institutions for practising engineers, technologists and technicians to update their knowledge.

6.6.6.5   The mismatch in state-of-the art equipment in the industry and obsolete ones in the universities also prevents exchanges between organized research in universities and institutions responsible for industrial research and development. Institutionalised mechanisms for interaction between universities, research institutions and private sector would also provide continuous brainstorming, monitoring and feedback on science and technology education and training.

6.6.6.6   Some of the universities and other higher education institutions feel constrained to accept contracts with time bound results as they have limited capacities for implementation. Lack of recognition of intellectual capacities existing in local universities has tended to encourage dependence on foreign researchers, leading to outflow of capital that would otherwise have been utilised locally. More engagement of local faculty by both the public and private sector would motivate researchers and invigorate research. However, this capacity needs to be proactive, better organised and managed tasks that squarely fall on the shoulders of local institutions.

Recommendations 6.23

a)   *A national scheme should be established to facilitate university staff to spend two to three months in industry, research institute, and government departments or with civil society in a suitable practicum or internship experience to retool and gain relevant practical experiences in order to enrich their teaching and research skills.*

b)   *Tertiary institutions such as the Kenya Polytechnic should as a policy, consider a candidate's ability and commitment to develop interaction with industry as an important criterion in his/her selection as a staff member.*

c)   *Universities should also set up and provide incentives to faculty members who are engaged in research work sponsored by industry in terms of rewards and recognition towards assessment for promotion.*

d)   *Positions of industry-based adjunct professors should be created for which well-qualified personnel from industry should be considered for appointment.*

e)   *The public and private sectors should jointly be engage in sponsored research and consultancy.*

f)   *Universities and technical educational institutions should organise 'open house' functions for industry and participate in industrial exhibitions and trade fairs.*

g)   *The government should enhance incentives to private sector to attract more investment in new technologies in order to transfer high level skills and technical know-how to Kenyans.*

6.6.7 Linkages with Research Institutions and Professional Bodies

6.6.7.1   There are a number of national and international research institutions, which carry out specialised research in the country. These include KEMRI (Health) KARI - Agriculture, KEFRI (Forestry), ILRI (livestock) and ICIPE. A visit to some of these institutions by the Board revealed that the institutions were well-managed, had the state-of-the-art equipment and physical facilities and had carried out credible and relevant research in their areas of expertise.

However, the Board noted that these institutions did not have institutionalised linkages with relevant departments in most of the public universities. As a result, collaboration in research was done on an ad-hoc basis. Their positions of strength and expertise coupled with the intellectual potential of the universities can enhance relevance of research undertaken as well as enrich and increase viability and quality of university research and supervision of postgraduate students at PhD and post doctoral levels. This would go along way in enhancing capacity building for universities and national research system.

6.6.7.2   Professions such as Law, Medicine, Architecture and Engineering have various professional bodies, which regulate training at the middle-level colleges, internships and actual practice. There is need for close collaboration between these professional bodies and the universities so that there is synergy between curriculum development, training and professional ethics. Such bodies can also support research in their respective fields within the universities. The Board has made appropriate recommendations in chapters three and eight.

6.6.8 Linkages with Communities and Civil Society Organizations

6.6.8.1   The Board notes with appreciation that some universities have some outreach programmes where their faculties utilise their knowledge and expertise to assist communities to improve certain aspects of their lives such as environment and health. Current strategic plans have also committed the universities to strengthening collaboration with non-governmental organisations. This will in the long run prove beneficial as the communities as well as the NGOs which interact with society in real-life situations, have first-hand knowledge, information and experiences that can be used to inform the content of some programmes and thus enhance their relevance.

6.6.9   ICT in Higher Education

6.6.9.1   High quality in higher education can be enhanced through the application of new conveyance technologies such as the information and communication technologies. The pervading influence and utilization of ICT in economic development make it absolutely essential that universities take the lead in imparting skills and knowledge so that graduates have competency in this area. In addition to introduction of appropriate academic programmes on the ICT in public universities, there has been a national initiative to increase the ICT capacity in Kenya by installing a fibre optic backbone. The Board was, however, informed that the cost of accessing internet was inordinately high, and that in many cases, access and speed were limited due to limited band widths. Efforts by universities through mediation of development partners in the establishment of KENET for provision of sufficient and reliable communication infrastructure are highly commendable and need to be supported by all parties. The Board also applauds the efforts of selected universities to establish additional modern computer laboratories for training and research.

6.6.9.2   The Board's enquiries revealed, therefore, that there is an acute shortage of qualified staff and facilities. There is need for universities to carry out research in ICT with a view to coming up with home-grown innovations and processes for the local regional market.

Recommendation 6.24

The government in partnership with industry should build strong ICT platform and develop centres to champion Kenya's competencies with a view to establishing future regional leadership in this field.

6.7   POSSIBLE AREAS FOR FUTURE INVESTMENT IN KNOWLEDGE AND SKILLS

6.7.1 Capacity Building

6.7.1.1   There are several areas where, although the country needs increased human resource there is insufficient output because of lack of facilities, and trained faculties. These areas include: Tourism and Hotel Management, Medicine, Computer Science, Engineering, Wildlife Management, Fisheries, Economics, Building Economics, Electrical and Communications Technology, Agriculture, Dairy Food Sciences and Post-Harvest Technology. Programmes in these crucial areas have immediate impact on the national economy in areas such as health, tourism, agriculture, manufacturing, infrastructure development and ICT. Their strategic significance requires that admissions and output in the existing programmes be increased, and where specializations do not exist established.

6.7.1.2   There are other strategic areas where no courses or programmes exist. These include sugar technology, forensic sciences, water studies, energy, maritime studies and oceanography, aviation, mining and finance. There is a strong economic basis for government and the universities to invest in these programmes.

6.7.1.3   In today's knowledge economies, muscle power has been replaced by a combination of brain power and knowledge- hence, the need to produce innovative and creative graduates. The competitive work environment and the quest for highly productive employees mean that only the most efficient and reliable will be preferred. Some of concerns highlighted in the Chapter four on Student Welfare, such as time management, alcohol and drug abuse, integrity, teamwork, communication skills and ICT competencies will determine how well and how effective those that the universities have trained fit in the workplace and more importantly how well they contribute to their own

individual advancement as well as that of society. Paper qualifications will not be enough; they must be matched with the competencies required to function effectively and move ahead in the rapidly changing work environment.

6.7.1.4   The Board has noted with appreciation that universities have taken the lead in abolishing some unpopular programmes and introducing some new ones and through their strategic plans they have committed themselves to periodic reviews of their curricula.   This will do away with curriculum stagnation and ensure that programmes keep abreast of new developments.

6.7.1.5   Tables 6.4(a) and 6.4(b) below show some of the key areas in academic programmes which universities need to enhance their training capacity. There are also academic programmes that are already taught at undergraduate level and which there is a great need to expand considerably postgraduate enrolment. Examples of these are; tourism, biomedical engineering, water engineering, biotechnology and ICT.

Table 6.5(a): Schedule of Indicative New Academic Programmes

SECTOR	NEW PROGRAMMES	LOCATION/INSTITUTION	REMARKS
HOTEL AND TOURISM	Events Management and Studies	Launch at proposed Coast University	Diploma and Degree Level
	Foods And Beverages	Moi, Coast University	Diploma and Degree
AGRICULTURE	Agro processing, Food storage, Manufacturing, Marketing	Moi, Egerton, Nairobi	Enhance and revitalize existing programmes
	Dry land farming, irrigation	Launch at proposed North Eastern University	Diploma and Degree Level
	Floriculture	Egerton, UoN, JKUAT	Diploma and Degree
	Agric Biotechnology	Egerton, UoN, JKUAT	Diploma and Degree
WATER	Water Engineering, Harvesting and Storage	Launch at university at Eastern Province	Diploma and Degree
TRANSPORT	Transport Planning, Infrastructure, Economics Engineering	Launch at the proposed Kenya Polytechnic University	Diploma and Degree Level
OCEANOGRAPHY	Maritime Studies, Marine Engineering, Fisheries, Ports Management	Launch at the proposed Coast University	Diploma and Degree Level
MINING	Mining Engineering, Mineralogy, Exploration and Processing	Launch at the proposed Eastern University	Diploma and Degree Level
ENERGY	Oil Prospecting, Refinery and Petrochemical Engineering, Coal Mining, Renewable, Wind, Solar, Geothermal, Nuclear Energy and Technology	Launch at the proposed Coast University	Degree level
HEALTH	Biomedical Engineering, Alternative Medicine, Herbal Medicine	Kenyatta University, University of Nairobi, Moi	Degree level
	Forensic Sciences	University of Nairobi, Moi	Degree Level
MATERIAL SCIENCE	Polymers, Plastics, Ceramics and Nanotechnology	University of Nairobi, Moi	Degree Level
AVIATION	Aeronautical Engineering, Satellite Engineering, Space Sciences	University at the Coast, UoN	Diploma and Degree Level
LANGUAGES	Local Languages, Dialects, Chinese, Arabic, Japanese etc	At University of Nairobi, Kenyatta University and Maseno	Revitalize existing facilities
INTERNATIONAL RELATIONS	Peace, Security and Conflict Resolution Studies	Moi, UoN	Diploma and Degree
NATURAL SCIENCES	Molecular Biology and Biotechnology	UoN JKUAT	Degree

Source: Board Generated Data, 2006

Table 6.5(b): Indicative Existing Programmes for Expansion

SECTOR	PROGRAMMES TO EXPAND	LOCATION/INSTITUTION	REMARKS
HOTEL AND TOURISM	Hotel Management, Wildlife Resources/Management and Utilization (Incorporate Plants and Microorganism)	Moi University at the Coast, Utalii College	Revitalize existing programmes
AGRICULTURE	Horticulture, Floriculture, Aquaculture, Civiculture	Moi, proposed university at N. Eastern, Eastern and Coast	Offered at Diploma and degree level
LIVESTOCK	Range Management, Leather, Meat Processing	University of Nairobi, Proposed N. Eastern University	Diploma and Degree Level
ENVIRONMENT	Conservation, Mapping, GIS, Disaster and Waste Management	Kenyatta University, UoN, Moi, WUCST	Enhance existing facilities
FINANCE AND INSURANCE	Commerce, Actuarial Sciences, Financial Marketing Stocks and Equity	UoN, JKUAT	Enhance existing programmes
MEDIA STUDIES	Multi Media Film and TV, Engineering Advertisement, Graphics	UoN, Moi	Enhance existing programmes
I C T	Computer Hardware and Software, Engineering, Network Engineering	UoN, Moi, Maseno	To enhance existing programmes
TEXTILE	Spinning, Weaving manufacturing of Technologies	Moi University	To be enhanced

Source: Board Generated Data, 2006

6.8   CONCLUSION

6.8.1   Graduates of local universities continue to serve with distinction in diverse fields within the country, regionally and internationally. In the coming years, tertiary institutions will be expected to build on this foundation by seizing upon new opportunities emerging in Kenya, Eastern African region and the globe. A major paradigm shift is required to capitalize and seize upon the emerging opportunities. The wide ranging reforms articulated in this report and the redefined role and place of higher education in social and economic development call for creative partnership and dialogue between institutions of higher education, the state, private sector, communities and civil society. Leadership, innovation and strong political will for reform are vital for the shift which is necessary if this sector is to remain a key player in the development of the country.

6.8.2   The benefits that come with emerging opportunities and the steadily improving economy will accrue to the institutions which plan and position themselves by undertaking far reaching reforms in governance structures and

management practices at various institutional levels. Proactive institutions should also implement curriculum changes, ensure innovative delivery of learning and teaching, and establish programmes for disseminating and enhancing the utilisation of knowledge to meet urgent national and regional needs.

6.8.3   The Board examined experiences and best practices in other countries such as Japan, Singapore, Korea, China, India, Brazil and South Africa, and noted that these countries rely on their universities to drive innovative programmes, which characterize their vibrant economies. It has, therefore, emerged that a valid case exists for the government to come up with bold policies to invest in research and development; coordinate acquisition of skills and capabilities; guide and subsidize adoption and improvement of technologies, products and innovations, as well as transform national universities into entrepreneurial and developmental institutions to leverage socio-economic development, cultural and technological transformation.

CHAPTER SEVEN

RESOURCE MOBILIZATION AND FINANCING OF HIGHER EDUCATION

7.1   INTRODUCTION

7.1.1   The major challenge to higher education particularly in developing countries is financing of the sector to meet the needs of increasing access and equity, improving quality and relevance and ensuring sustainability in the context of limited resources. Institutions of higher learning also face the challenge of building and enhancing good governance and management structures and practices.   Many countries are currently meeting these challenges by introducing and strengthening strategies for cost-sharing efficient and effective utilization of the available resources.   Some of these strategies include:

- Introducing or increasing fees or user charges in public institutions;
- Establishing lean and efficient management system and cutting of waste;
- Designing or improving systems of student support; including grants, scholarships, and student loans;
- Seeking new sources of private funding; including contributions from business, industry and donations or endowments from individuals or philanthropic foundations;
- Promoting the growth of private institutions; and
- Encouraging higher education institutions to be more 'entrepreneurial' in providing their services and seeking contracts for research and consultancy.

7.1.2   Concerns exist on the extent and feasibility of cost-sharing in many countries, including OECD countries such as Australia, New Zealand, the UK, and the USA; in transition economies such as Hungary and Czech Republic; and in

developing countries in Africa, Asia, and Latin America. In many countries, cost-sharing is inevitable, and the trend towards this is a worldwide phenomenon.

7.1.3   Kenya Government recognizes that education and training, especially at the university level, is essential for the overall national development as well as a major determinant of substantial private benefits. Investment especially in higher education and training is defensible because there is a strong linkage between higher education levels and economic and social prosperity. Investments in education and training are an acknowledged means of achieving economic growth, social progress and high rates of employment. As a result, increasing demand for higher education and training in Kenya is both necessary and desirable for ensuring new jobs and opportunities in the knowledge economy. But higher education and training is expensive and face competing imperatives for public spending and consequently, it is highly sensitive politically. As, shown in Figure 7.1 below, Ministry of Education, has over the years taken a bigger share of resource than other ministries.

Figure 7.1:   Allocation among Key Ministries: 2000/01-2004/05

	2000/01	2001/02	2002/03	2003/04	2004/05
Office of the President	28.35	24.39	25.45	22.84	21.56
Finance	8.87	5.68	5.61	9.52	12.69
Agriculture	4.79	3.98	4.83	3.66	2.54
Health	7.28	6.80	9.01	8.17	7.84
Roads and Public Works	3.29	3.31	2.20	2.36	2.65
Education, Science and Technology	32.70	31.42	33.36	35.84	32.31
Others	14.71	24.42	19.54	17.61	20.42

Financial Years
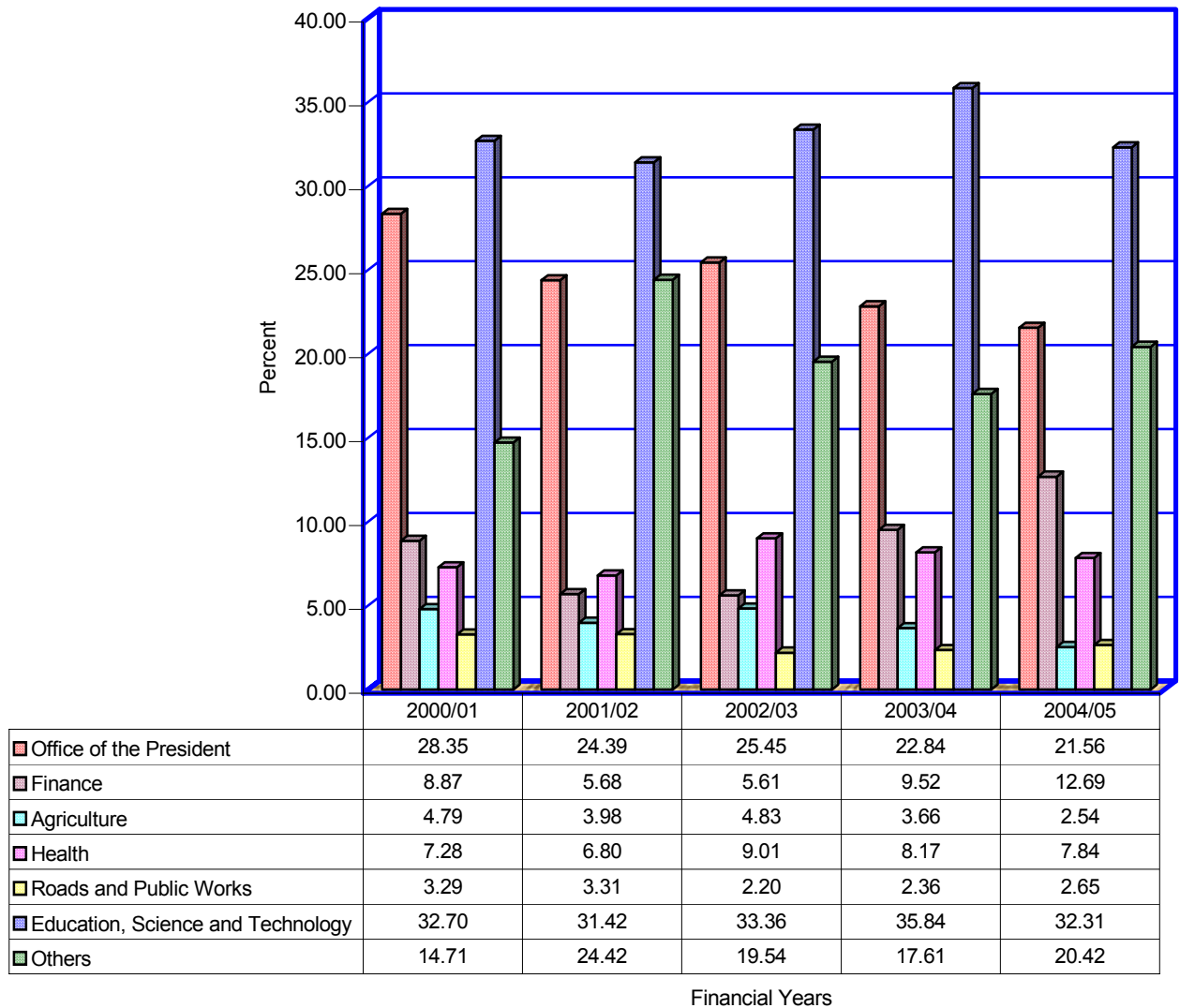
Source: GoK Printed Estimates 2000/01-2004/05

7.1.4   In spite of education and training being expensive and politically sensitive, there is need for a diversified quality education and training that is accessible to all. For these reasons, the government has and continues to be the main investor in education and training despite the economic constraints and the competing demands it faces as shown in Figure 7.2 below where Ministry of Education, Science and Technology had the largest net allocation in 2005/06, among some of the key ministries.

Figure 7.2:   Net Allocation among Selected Ministries: 2005/06
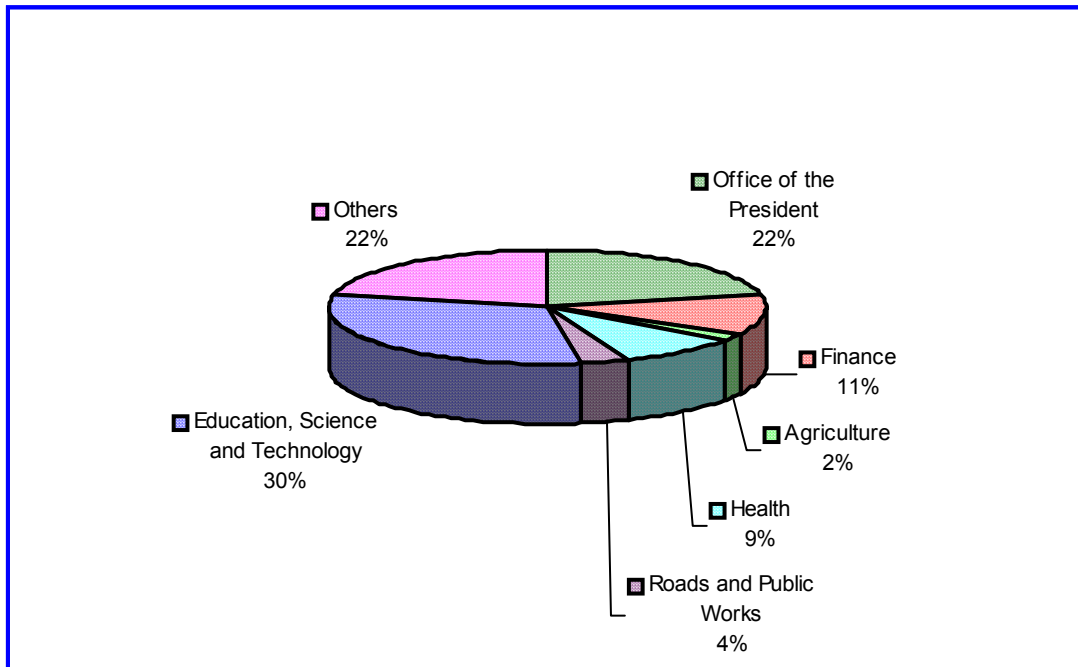
Source: GoK Printed Accounts 2005/06

7.1.5   The funding level from the government is presently insufficient and unsustainable to meet the increasing demand for higher education, staff salaries and maintain acceptable standards of educational quality. Since it is not possible to rely wholly on public spending, it is necessary to create partnerships with other stakeholders in financing higher education and training. The business community, households and universities themselves in partnership with government must play an enhanced role in mobilizing resources for higher education. The proposed shift into the financing mix of higher education and training will guarantee, in a sustainable way, that all qualified students are able to study at these institutions irrespective of their socio-economic backgrounds.

7.1.6   In 2005/2006, about 30.7 per cent of the total budget was allocated to the education sector as shown in Figure 7.2 above. Within the total education budget, the largest share in the last five years has been allocated to primary education, with a decreasing allocation to secondary and constant for university education as shown in Figure 7.3 below. With the government's

commitment to Free Primary Education (FPE), both primary and secondary education will continue to require more resources at the expense of higher education. Therefore, public funding of university education is projected to decrease whereas funding for TIVET institutions will remain almost at the same level over time. The trend by the government is, therefore, to continue to finance basic education with increasing budgetary allocations, while proportionately maintaining its current financing of higher education in order to realize Education for All (EFA) and achieve Millennium Development Goals (MDGs).

7.1.7   To meet the increasing demand for higher education by individuals while at the same time ensuring that equity, quality and relevance are maintained, more resources are required. Accordingly, there will be need for the government to mobilize more resources from non-governmental sources in order to enhance funding for the sector and thus bridge the gap. The government, working with tertiary and universities' management, should target mobilizing more resources from the industry, private sector, development partners, philanthropists and households. The government's support to these institutions should be earmarked for financing enhancement and building of critical capacity and skills (particularly at the postgraduate level) that are essential for the national development, leaving the cost of additional capacity, maintenance and operation to be borne by other stakeholders. In addition, government's resources should go towards supporting students who merit access to university education but do not have the means to pay, support to research and development programmes that are strategic to the country's development and financing start-up costs (such as infrastructure) for new programmes. Other stakeholders will therefore have to contribute more towards the financing of higher education in order to support other areas that the government might be unable to finance.

7.1.8   In an effort to bridge the financial gap between the budgetary allocation from Treasury and the expenditures incurred by public universities, the latter have started and successfully managed a number of income-generating initiatives over the last five years.   For example, the introduction of self-sponsored programmes has improved the incomes of public universities and is thus supplementing the university expenditures that hitherto used to be mostly financed from the exchequer.   Through the fees from self-sponsored students, most universities are now able to meet costs related to operations and maintenance.

Figure 7.3   Expenditure among the Sub-Sectors in Education: 2001/02-2004/05

	2001/02	2002/03	2003/04	2004/05	2005/06
Primary	55.0	56.2	57.7	59.2	57
Secondary	29.4	28.6	27.2	24.6	26
TIVET	1.8	1.6	1.8	2.2	2
University	12.9	12.8	12.0	13.4	14
Others	1.0	0.8	1.3	0.7	0.6

Financial Years
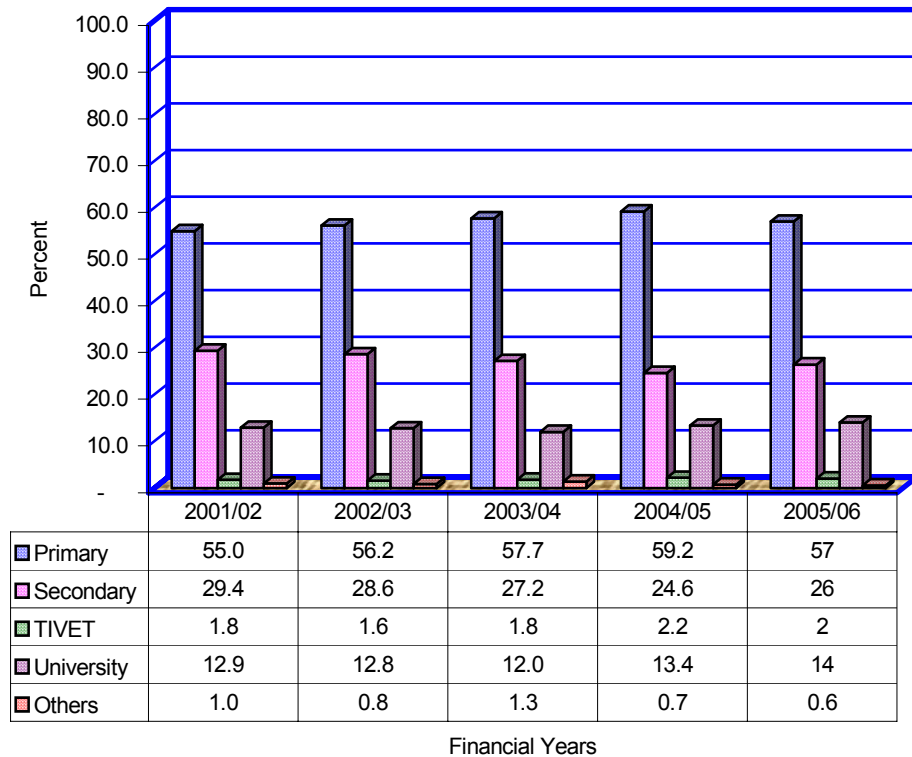
Source: Statistics Section, Ministry of Education, Science and Technology, 2005

7.1.9   This innovative approach to funding has meant that some universities are able to operate and expand their activities beyond the level that the exchequer could have possibly funded. Public universities, for example, have been able to utilize internally generated revenue to:

- Compensate lecturers (above their salaries) at prevailing market rates based on contact hours; Support monthly payroll shortfalls. University of Nairobi for instance has a regular monthly shortfall of about Kshs 70 million and this deficit is met through internally generated funds;

- Allocate funds to departments and faculties to purchase teaching, learning and research materials, equipment and computers, University of Nairobi has spent Kshs 42 million to support research and development;

- Purchase recent editions of books, subscribe to scholarly journals, provide internet facilities and acquire new furniture and reprographic equipment. University of Nairobi for instance has spent Kshs 92.9 million to library purchase library items;

- Complete stalled projects and rehabilitate existing ones as well as acquire new assets. For example, Maseno University has purchased a prime property within Kisumu City, completed dormitories and a health centre; Kenyatta University has purchased Parklands and Ruiru campuses; Jomo Kenyatta University of Agriculture and Technology has completed an amphitheatre, a science block and purchased Karen campus at Kshs 150 million; Egerton University has acquired a town campus; Moi has purchased town campus and completed some stalled projects; Western University College of Science and Technology has completed some dormitories through some of the internally generated funds, whereas University of Nairobi has spent over Kshs 750 million on capital projects;

- Invest in income facilities such as funeral parlour(Nairobi), hotel (Maseno) and university farms;

- At the same time, internally generated funds have been used to meet medical bills, utility bills and clear some of the accumulated debts.

7.1.10   In spite of these initiatives, the wage bill in these institutions takes the bulk of the capitation that is provided to finance operations including salaries and allowances for both academic and non-teaching staff and this situation has become more acute after the recent salary increases. As a result of this,

public universities are unable through their internally generated funds to meet some of their development, operations and maintenance costs, which have resulted in some universities running deficits.

7.2 COST OF HIGHER EDUCATION AND TRAINING

7.2.1   University education and training are expensive and require huge investments. The average spending per student at the university level is higher in relation to primary, secondary and TIVET education. At the same time, ever-increasing demands for access to higher education will add more pressure on the government's ability to fund and support higher education and training at current levels. Consequently, to ensure enhanced access, equity, quality and relevance, universities will have to operate without a proportionate rise in the resources available to higher education from the government. Universities are, therefore, faced with a major challenge of raising funds that will enable them to meet the demand for expansion, completion of stalled projects, and embark on improvement of the existing infrastructure in order to meet the high demand while ensuring quality and relevant education and training.

7.2.2   The current university funding structure for government-sponsored students is not based on the unit cost for undergraduate programmes but allocated uniformly per student enrolled irrespective of the course a student is pursuing. Therefore, the cost per course does not differentiate between expensive and inexpensive programmes. Furthermore, uniform funding per student enrolled varies from university to university and this is also insensitive to different unit costs of the courses offered by the various universities. As a result of applying this uniform unit cost, public universities with relatively expensive programmes are under-funded as compared to those with relatively less costly programmes. For example, University of Nairobi has, over time, been under-funded since it has relatively expensive programmes such as medicine, dentistry, pharmacy, veterinary medicine and engineering than Kenyatta

University, which in contrast, has relatively less expensive programmes. At the same time, the current average funding per student does not reflect the true cost of living. Table 7.1 below shows the under and over-funding with respect to annual tuition fee and other charges under module I and module II for selected undergraduate programmes in the University of Nairobi for 2005/06. In addition, Table 7.1 shows a comparison between the proposed differential unit costs and charges under self-sponsored programmes

Table 7.1: **Annual Tuition Fees and Other Charges under Regular, Self-sponsored and Proposed Differentiated Unit Costs for Selected Undergraduate Programmes in the University of Nairobi: 2005/06[1]**

Programme	Average Annual Cost (KShs)		Difference (KShs) Regular and SSP	Proposed Differentiated Unit Cost[4] (KShs)
	Regular[2]	SSP[3]		
Architecture	200,000.00	306,333.00	(106,333.00)	360,000.00
Civil Engineering	200,000.00	179,900.00	20,100.00	360,000.00
Medicine	200,000.00	469,100.00	(269,100.00)	540,000.00
Nursing	200,000.00	259,500.00	(59,500.00)	330,000.00
Dental Science	200,000.00	469,750.00	(269,750.00)	660,000.00
Actuarial Science	200,000.00	166,000.00	34,000.00	300,000.00
Computer Science	200,000.00	263,900.00	(63,900.00)	360,000.00
Veterinary Medicine	200,000.00	264,950.00	(64,950.00)	480,000.00
Arts	200,000.00	102,450.00	97,550.00	180,000.00
Law	200,000.00	171,710.00	28,290.00	240,000.00
Commerce	200,000.00	154,500.00	45,500.00	210,000.00
Education-Arts	200,000.00	122,500.00	77,500.00	210,000.00
Education-Science	200,000.00	144,500.00	55,500.00	300,000.00

1   These costs do not include catering and accommodation
2   The cost is an average calculated on the basis of allocation given by the government and the number of students enrolled.
3   The figures given represent the actual cost charged by the university.
4   The proposed differentiated unit cost has factored in all items involved in delivery of higher education.
Source: Report of the Technical Committee on *Unit Cost for Programmes for Public Universities in Kenya*, 2005

7.2.3   From the above, there is need to adopt differential unit costs based on the various programmes, and each university be allowed to set its own actual unit costs as dictated by its own unique circumstances subject to the respective

maximum unit costs as set by the market. However, the differential unit costs must be relatively competitive as compared to charges from universities elsewhere including local private universities as well as being sensitive to the economic situation within the country. The government should have a mechanism to determine how many students it wishes to sponsor to study a particular programme and then support them as per the differential unit cost of that programme. Any vacant positions in that programme should thereafter be competitively filled and should be charged at the specified differential unit cost. This approach will ensure that there is only one programme as opposed to existing regular and self-sponsored programmes.

7.2.4   The introduction of differential unit costs will invariably imply high cost especially for programmes that require expensive equipment, teaching and learning materials as indicated in Table 7.2 below as compared to the current funding mechanism where each student is approximately allocated Kshs 200,000 per year. This will, in turn, put more pressure on the government and other stakeholders that finance university education.

Table 7.2   Proposed Differentiated Unit Costs (Kshs) in Public Universities for Kenyan Students[1]

Programme of Study	Bachelor's Degree	Master's Degree	Doctorate
Cluster I A: Dentistry – Pre-Clinical	360,000	400,000	420,000
Cluster I B: Dentistry – Clinical	660,000	733,333	770,000
Cluster II A: Medicine (MB ChB) – Pre-Clinical	360,000	400,000	420,000
Cluster II B: Medicine (MB ChB) – Clinical	540,000	600,000	630,000
Cluster III A: Veterinary Medicine – Pre-Clinical	330,000	366,667	385,000
Cluster III B: Veterinary Medicine – Clinical	480,000	533,333	560,000
Cluster IV: Architecture, Engineering, Surveying, Computer Science, Information Technology	360,000	400,000	420,000
Cluster V: Pharmacy	360,000	400,000	420,000
Cluster VI: Nursing	330,000	366,667	385,000
Cluster VII: Design, Landscape Architecture, Urban and Regional Planning	300,000	333,333	350,000
Cluster VIII: Mathematics, Natural Sciences	300,000	333,333	350,000
Cluster IX: Agriculture and Agricultural Sciences, Forestry and Wood Science and Technology, Food Science and Technology, Range and Wildlife Management, Environmental Science, Environmental Health, Ornamental Science and Landscaping, Biomedical Science and Technology, Education (Science and Technology), Appropriate Technology, Communication and Media Technology, Information and Library Sciences	300,000	333,333	350,000
Cluster X: Building Economics, Construction Management, Land Economics	270,000	300,000	315,000
Cluster XI: Law	240,000	266,667	280,000
Cluster XII: Business Management, Commerce	210,000	233,333	245,000
Cluster XIII: Education (Arts and Social Sciences), Environmental Studies (Arts and Social Sciences), Home Science and Technology, Hotel and Hospitality Management, Travel and Tours Operations Management, Recreation and Leisure Studies, Tourism, Sport Technology, Music	210,000	233,333	245,000
Cluster XIV: Humanities, Arts and Social Sciences	180,000	200,000	210,000

1   These costs do not include catering and accommodation
   Source: Report of the Technical Committee on *Unit Cost for Programmes for Public Universities in Kenya*, 2005

7.2.5   Table 7.3 below shows the annual tuition and other charges (excluding boarding and catering) among some private universities in Kenya. Comparing Tables 7.2 and 7.3, the proposed differential unit costs within the public universities are, on average, higher than is the current charges by private universities except for clusters VI, VII and VIII as shown in Table 7.4 below. However, except for cluster VII, the proposed differential unit cost for master's programme is lower in public than in private universities.   This analysis indicates that there is need to harmonize these costs between public and private universities because in future, there will be no need to distinguish between private and public universities because they will all be expected to provide education to all Kenyans.

Table 7.3   Annual Tuition Fee and Other Charges (Kshs) Among Private Universities in Kenya: 2005/06[1]

University	Degree	Clusters[2]							
		IV	VI	VIII	IX	XI	XII	XIII	XIV
USIU-A	Bachelor's	270,348.00			283,848.00		270,348.00	277,098.00	270,348.00
	Master's						308,292.00		308,292.00
Daystar	Bachelor's			234,300.00			234,300.00	234,300.00	234,300.00
	Master's						310,300.00		310,300.00
Africa Nazarene	Bachelor's	222,500.00			222,500.00		210,500.00		210,500.00
	Master's						232,500.00		238,500.00
Strathmore	Bachelor's	212,100.00					216,470.00		
Catholic	Bachelor's	233,020.00		204,260.00	204,260.00	228,020.00	204,260.00		204,260.00
	Master's						354,500.00		
Kabarak	Bachelor's						226,000.00	226,000.00	206,000.00
Baraton	Bachelor's		264,150.00				246,150.00	246,150.00	246,150.00
Kenya Methodist	Bachelor's		225,600.00	306,150.00	321,150.00		276,150.00	276,150.00	208,100.00
	Master's							219,500.00	
Average	Bachelor's	234,492.00	244,875.00	248,236.67	257,939.50	228,020.00	235,522.25	251,939.60	225,665.43
	Master's						301,398.00	219,500.00	285,697.33

1   These costs do not include catering and accommodation

Source: Report of the Technical Committee on *Unit Cost for Programmes for Public Universities in Kenya*, 2005

Table 7.4: **Comparison between the Average Annual Tuition Fee and Other Charges (Kshs) in Private Universities and the Proposed Differentiated Unit Costs for Selected Programmes in the University of Nairobi: 2005/06[1]**

Cluster	University of Nairobi		Private Universities		Difference	
	Bachelor's	Master's	Bachelor's	Master's	Bachelor's	Master's
IV	360,000.00		234,492.00		125,508.00	
VI	330,000.00		244,875.00		85,125.00	
VIII	300,000.00		248,237.00		51,763.00	
IX	300,000.00		257,940.00		42,060.00	
XI	240,000.00		228,020.00		11,980.00	
XII	210,000.00	233,333.00	235,522.00	301,398.00	(25,522.00)	(68,065.00)
XIII	210,000.00	233,333.00	251,940.00	219,500.00	(41,940.00)	13,833.00
XIV	180,000.00	200,000.00	225,665.00	285,697.00	(45,665.00)	(85,697.00)
Average Difference					25,414.00	(46,929)

1   These costs do not include catering and accommodation

Source: Report of the Technical Committee on *Unit Cost for Programmes for Public Universities in Kenya*, 2005

7.2.6   Given the current budgetary constraints, the strategy for financing of university education and training should entail partnering with all beneficiaries (including universities themselves) of higher education in order to enhance support towards higher education. For example, universities will have to reduce their dependence on the government and thus diversify their sources of income and at the same time ensure more efficient and cost-effective use of institutional resources. The challenge, therefore, is how to mobilize more financial resources from the households, business community, development partners and the universities in order to supplement the funding from the government as well as ensuring an adequate funding to university education.

7.2.7   Currently, the criteria of government funding for universities do not include such factors as result oriented, performance, quality of graduates and research and effective resource management. The Board is of the view that resources from the government or any other source should be allocated on the basis of quality of academic programmes and the usefulness of research

undertaken to the economy, community and society. This approach will reward good performance and those who demonstrate efficiency and ability to utilize resources prudently.

Recommendation 7.1

Future funding of university education should be competitive and be based on the quality of academic programmes and research outputs while at the same time taking into consideration efficient and effective utilization of resources by the universities.

Recommendation 7.2

a) *Future financing of university education and training should be based on actual differentiated unit cost of a particular programme.*

b) *The government should determine how many students it wishes to sponsor to study a particular programme and then support them as per the differential unit cost of that programme.*

c) *The government should set aside funding to support bright students to undertake the strategic programmes to meet the needs of the country.*

Recommendation 7.3

Each university should set its own actual unit costs as dictated by its own unique circumstances subject to the respective maximum unit costs as set by the market. This recommendation should be implemented in 2008/09 financial year.

7.3 RESOURCE MOBILIZATION THROUGH PARTNERSHIP AND COLLABORATION

7.3.1 The current heavy investment that is borne by the government at the university level calls for a review to ensure suitable collaboration and partnership with other stakeholders. One important policy option is partnership between the government and other stakeholders in the provision of higher education and training that can supplement government's efforts and thus reduce the proportion of government's finances going into higher

education and training. The challenge is, therefore, on how to establish and sustain partnerships among the government, households, business communities, universities and development partners in the provision and supply of quality higher education and training to meet the demand.

7.3.2   Without a working partnership on financing higher education and training among these stakeholders, it will be difficult to address the problems associated with limited access, inequity, low quality and irrelevance.   In addition, the anticipated increase in demand for secondary and higher education due to the success of FPE, the current heavy household financial burden especially for poor households and the emerging global challenges of competition and liberalization of services require attention if the cost of higher education and training is to be effectively managed.

7.3.3   The long-term policy in financing higher education and training should provide a framework for a sustainable, competitive and autonomous national university system with a diversified financial base as well as maximum degree of managerial independence.   The individual expectations, roles and responsibilities of various stakeholders in higher education and training should be defined explicitly with respect to financing.

Recommendation 7.4
   a)   *An analysis of the existing and expected roles of all stakeholders (government, households, business community, universities, development partners) in funding higher education should be undertaken.*
   b)   *A study to establish fundraising capacities of universities be undertaken.*

7.3.1 Public Financing of Higher Education and Training

7.3.1.1   The government has a role to play in ensuring that there is a well-trained work force for national development by investing in higher education and training. It must, therefore, set aside a significant amount of resources to facilitate and maintain this requirement. Presently, the government provides most of the

resources required by public universities, but these resources have been inadequate in relation to existing and emerging needs most of these institutions continue to incur deficits. Furthermore, the largest share of these resources goes towards meeting the payroll costs leaving limited amounts for development, operations and maintenance. Accordingly, ensuring the quality of education and training provided by these institutions remains a major challenge.

7.3.1.2   With limited resources, the government should earmark its funding for higher education and training to fully support bright students from poor backgrounds, supporting research and development as well as infrastructure development of new universities and/or programmes. However, the support for new programmes should be based on the country's manpower needs and skills and knowledge required by the economy, that is, it should invest in skills required now and in the future. Besides funding public universities, the government should also support private universities because of their contributions towards providing skilled work force for national development by supporting students in these institutions through loan facilities, offering incentives to investors of these institutions and providing resources for research.

Recommendation 7.5

   a)   *Government funding should be set at a level that fully meets differentiated unit cost of sponsored students as well as research in both public and private institutions.*

   b)   *The government investments in higher education and training should aim to reach two per cent of the Gross Domestic Product (GDP).*

Recommendation 7.6

 a) *The government should continue to provide incentives for investors to establish, strengthen and expand private universities (e.g. by offering infrastructure such as land, roads, water and sewage system, installation of initial electricity and ensure security). In turn these institutions should expand enrolment and diversify their curricula*

7.3.2 Households Financing of Higher Education and Training

7.3.2.1 There is a strong positive relationship between human capital development and earnings and overall productivity. Some recent human capital returns in Kenya show that returns increase with level of education and that there are high private returns/benefits for those who have higher education and training. Available data reveal that investment in education has higher private rates of return particularly for higher education and training. For example, the recent report comparing the welfare of parliamentary constituencies in Kenya; '*Geographic Dimensions of Wellbeing in Kenya: Who and Where Are the Poor'? (November 2005)*, identified education as the single most important factor in determining the overall living conditions for the family - the more educated the head of households, the better the living conditions of the family.   The results of the report indicate that households headed by individuals with educational attainment at the secondary level or above are better off than those headed by individuals with primary level of education. Most families headed by people with little or no education are poor. Therefore, poverty is mainly associated with lack of education. North Eastern Province was, for example, identified as the poorest province in this report and this is clearly reflected in inequalities of educational opportunities within the province.

7.3.2.2 Other recent studies (for example, Kimalu, P. K., N. Nafula, D. K. Manda, G. Mwabu, M. S. Kimenyi, *'A Situational Analysis of Poverty Kenya'*, KIPPRA,

2002*)* show that individuals and their households benefit a great deal from the education and training. As a result, individual and household involvements in financing of higher education and training is justified on the basis that human capital investments have private returns as well as social returns. Indeed there are more private returns than social returns from higher education and training that accrue to the individual and household. With increased pressure on the public funding due to existing demands, and the anticipated impact of FPE, the contribution from the households towards higher education and training needs to increase considerably but gradually.   Households are currently paying the real costs for various programmes in private universities, self-sponsored programmes and in foreign universities. This requirement should be extended to the regular students enrolled in public universities. However HELB should strengthen and refine mechanisms for identifying and supporting students from poor households admitted to the universities.

7.3.2.3   Household participation in financing higher education and training could take a number of approaches, such as, enhanced tuition fees depending on the affordability of the household (involve parents in determining the tuition fees), meeting part or all charges for catering and accommodation, books and other forms of students' welfare.   Tuition fees is viewed as an easy option to financing higher education and training, however, should tuition fees be uniform or differentiated? Some countries have set uniform tuition fees for similar courses across the country which means that institutions cannot compete on the basis of price, but it does not reward good performers who may demonstrate better efficiencies and ability to mobilize resources elsewhere. In addition, it may be prudent to acknowledge the different costs of living in various locations. The government might also wish to set also maximum tuition uniform fees to deter loss of access by low income groups and also monitor this closely.

7.3.2.4   With the increasing levels of poverty among Kenyans, coupled by the high costs for goods and services, households and students are likely to display resistance to increase in tuition fees. This means that there is need to stimulate the development of various financial alternatives that make accessibility of funds available to both the households and students possible. For example, savings and subsidized students loans with low interest rates may be considered. At the same time, universities will need to make arrangements within themselves to promote balanced work and study programmes for the students. This will enable students especially from poor families to meet part of the tuition fees. Institutions of higher education and training and HELB should develop mechanisms to support qualified students from households who cannot afford university education and training. The mechanism developed should incorporate merit, need and the country's priorities. Students, who merit accessing university education and have the means, should pay for themselves.

Recommendation 7.7

The government should provide targeted funding to support the poor, vulnerable groups and students from underserved regions of the country to ensure that they are not adversely affected by the implementation of differentiated unit cost.

7.3.3   Private Sector Financing of Higher Education and Training

7.3.3.1   Apart from the individuals and the households, the business community also benefits directly from the skills acquired through higher education and training. On the other hand, universities offer opportunities to business community to benefit from research and development, product testing as well as product production and marketing. As a result of these, the private sector should have an important role to play in the financing of higher education.

7.3.3.2   Corporate sector benefits from employing graduates from higher education and training, but there are very few or no incentives or rewards for any company to fund higher education and training in Kenya. For this reason, corporate philanthropy in Kenya continues to play a very minimal role in funding higher education and training. Successful corporate philanthropy will require an approach that ensures that companies are offered favourable tax incentives or treatments so that they may fully participate in the curriculum development and implementation within higher education and training.

7.3.3.3   The private sector, through a number of initiatives could participate in support of higher education and training. This could be through philanthropy, targeted financial support and establishing endowment funds to meet some specific needs and/or programmes. Other areas where the business community could support higher education and training include, providing scholarships, balanced work-study programmes, attachments for academic staff within the industry, research for mutual benefit, donation of equipment and construction of buildings, such as, libraries and lecture theatres. In addition, business community could play the critical role of providing higher education through building private universities in order to supplement the government's efforts in providing education and training for national development. However, for the business community to engage in and support the financing of higher education, the government must develop a framework that clearly defines mechanisms for enhancing private sector participation in financing and development of higher education. Mechanisms for encouraging business community to play an enhanced role in supporting higher education could include a variety of tax incentives such as, import tax exemptions, tax rebates and other incentives that are available for private investors in other sectors.

7.3.3.4   Universities on their part need to develop beneficial relationships with the private sector and in particular, the industry in order to attract support. It will

not be enough to target businesses for support without an established partnership and collaboration mechanism especially on curriculum development and implementation within universities. To nurture and enhance participation of the corporate sector in higher education and training, there is need to create stronger linkages between the private sector, the universities and the government so as to facilitate sustainable partnerships and collaborations in funding higher education and training. In addition, experiences from elsewhere show that businesses would support specific initiatives rather than contribute to core funding of universities. At the same time, business community would like to see good governance, transparency and accountability, reduction in wastage in resource utilization, improvement on the quality of graduates, relevance of research to the industry and partnership in management of university education for continued support.

7.3.3.5   Kenya, like many African societies, has a rich and long tradition of networks of self-help (Harambee), philanthropy and voluntarism based on the strong relationships within communities especially in the rural areas. Although the Harambee spirit played a key role in the development of secondary education in the late 1970s and early 1980s, philanthropic has played an insignificant role in support of higher education. For example, philanthropy giving in Kenya has averaged about fourteen per cent as compared to twenty-four per cent, in South Africa, twenty per cent in Tanzania and seventeen per cent in developing and transitional countries (John Hopkins University, *Comparative Nonprofit Sector Project, 2004)*. If philanthropy is encouraged and supported, it can play an increasing and important role in education and empowerment of the disadvantaged and marginalized communities such as women and the poor. Universities and the government should initiate and support the 'Act of Giving' as this is the beginning of the philanthropy continuum process. Philanthropy could take the form of ameliorative giving, transformative giving, corporate philanthropy or individual philanthropy through volunteerism.

Recommendation 7.8

 a) The government should develop a framework that clearly defines mechanisms and incentives for enhancing private sector participation in financing and development of higher education by 2006/2007.

 b) The government in cooperation with the private sector should develop a framework for establishing and sustaining philanthropies and endowment funds for higher education.

 c) The government should encourage the setting up partnerships between the universities and private sector for supporting research and development.

Recommendation 7.9

To nurture and enhance participation of the corporate sector in higher education and training, there is need to create stronger linkages between the private sector, universities and government so as to facilitate partnership and collaborations in funding higher education and training.

Recommendation 7.10

The government and universities should seek ways and means of sourcing funds to establish endowments for higher education.

7.3.4 University Contribution in Financing Higher Education and Training

7.3.4.1 Over the past one-decade or so, public universities have continued to receive less financial allocation from the government than their estimated expenditure. This trend has resulted in the accumulation of debts, especially recurrent debts. Moreover, there are strong indications that the government will no longer be able to fully finance public universities in future. Universities will, therefore, have to reduce their dependence on the government by diversifying their sources of income as well as ensuring more efficient and cost-effective use of institutional resources. They will also be required to establish comprehensive financial management systems that ensure efficiency in application of resources. In response to this challenge, public

universities have taken a number of initiatives, such as, introduction of self-sponsored programmes and other income-generating activities (IGAs) in an attempt to bridge the gap between the budgetary allocations and actual expenditures, in the last six years. However, the Board observed that public universities have not yet unlocked the various assets at their disposal such as real estate and land in prime areas of the country for resource mobilization.

7.3.4.2   Higher education and training institutions themselves can supplement their resources in several ways. First, public universities must be able to demonstrate an efficient and effective way of utilizing the current resource allocation. Second, they need to rationalize the establishments of their non-academic staff, as well as trim the many layers of administrative staff such as deputy vice-chancellors, principals and several registrars. Third, universities should decentralize resources and administration to co-business units (departments, faculties/schools and research institutes). Finally they should rationalize academic programmes to avoid duplication and wastage especially within same institution and among universities.

7.3.4.3   Those institutions and individuals that have supported public universities have expressed concerns about the way funds provided are managed and accounted for. To reap maximum support and funding from these institutions and individuals, universities need to streamline their financial management processes to ensure transparency, accountability, and prudence in utilization of grants and gifts. For example, there is need to strengthen the audit function by engaging independent auditors, carrying out audits on timely basis, ensuring that audits comply with international accounting standards and sharing audited accounts with all the stakeholders as well as the general public.

Recommendation 7.11

a) *Public universities should rationalize the establishment of their staff as well as trim the many layers of administrative staff (such as deputy vice- chancellors, principals and registrars).*

b) *Universities should decentralize resources and administration to core-business units (departments, schools, faculties and research institutes) and also rationalize academic programmes to avoid duplication within same institution and among public universities.*

c) *Public universities should demonstrate an efficient and effective way of utilizing the resources allocated to attract additional funding.*

Recommendation 7.12

Public universities should, within the next two years (2006-2007), de-link themselves from non-core businesses such as security, transportation, cleaning, students' catering and accommodation through out-sourcing.

Recommendation 7.13

a) *Public universities should unlock, maximize and utilize the vast assets at their disposal.*

b) *Public universities should recruit investment managers to provide quality advice on how to manage their assets and investments.*

Recommendation 7.14

a) *Public universities should find ways of attracting support from private sector, development partners, especially alumni (key in fund-raising) and other stakeholders (for scholarships, research and other activities).*

b) *Public universities should create partnerships and collaboration with private sector in the development and operationalization of the science parks.*

c)   *In order to strengthen trust and confidence of private and public sectors as well as all stakeholders, universities should enhance the capacities of audit functions and publish their accounts in print media.*

Recommendation 7.15

a)   *Universities should mainstream consultancy within their academic programmes.*

b)   *Public and private universities should endeavor to aggressively compete for consultancy services within the government, business community, non-governmental organizations and development partners.*

c)   *Universities should strengthen capacities of staff in proposal writing, consultancy and research in order to access funds and equipment from development agencies.*

Recommendation 7.16

Both public and private universities need to be more aggressive in attracting foreign students into their universities. At the same time, they should attract those Kenyan students who are opting to study abroad.

7.4   FUNDING OF CAPITAL DEVELOPMENT, RESEARCH AND INNOVATIONS

7.4.1   Research and development play vital roles in industrial transformation, economic growth, and poverty reduction and are, therefore, critical components of higher education and training. The government appreciates and recognizes this role and, in 2005/2006, allocated Kshs 65 million through Commission for Higher Education (CHE), for research and development. However, quality research requires sufficient funding, availability of highly trained research staff as well as appropriate facilities and equipment. For the country to meet its development and socio-economic needs, it is essential that research and development be given the priority they deserve in national development.

7.4.2   Even though research and development play critical roles in national development, there is lack of effective coordination between the various institutions and harmonization on research policies and also gets limited national funding (estimated at 0.6 per cent of GDP compared to 2.86 per cent, 3.15 per cent, 1.89 per cent, and about 0.76 per cent in USA, Japan, UK, and South Africa, respectively, UNESCO, 2005). In addition, there are limited incentives for research, inadequate mechanisms and capacity for dissemination and utilization of research findings as has been observed elsewhere in the report.

7.4.3   From the above, the government should be responsible for funding research and development and investing more in priority development areas (for example, agricultural research for food security, light industries (*Jua kali)* and raw material processing to add value. Other areas where the government should provide direct funding include establishment of innovative and pioneering programmes that the government may deem to be priority for economic development. The government should invest adequately in scientific and technological research and in particular in the development of ICTs. Additional funding for research could be sourced from development partners to supplement national efforts. Resources mobilized for this purpose se should be pooled and channeled through the revitalized NCST to build a strong, competitive and productive research community.

Recommendation 7.17

a)   *A fraction of funds allocated for higher education and training, for example at least five per cent, should be set aside to support research and building of research infrastructure. These funds should be allocated competitively on the basis of quality and value of research being undertaken.*

b)   *A restructured and revitalized National Council for Science and Technology (NCST) should be responsible for administering and managing these funds.*

7.5   THE ROLE OF HIGHER EDUCATION LOANS BOARD IN FINANCING HIGHER EDUCATION

7.5.1   In the last 10 years, HELB has supported many Kenyans who could afford to pay fees for university education and training through provision of loans, bursaries and scholarships. Over the same period, HELB has diversified its products to include support for needy students in chartered private universities and awarding loans to postgraduate students. As a result, about ninety-seven per cent of the students who apply for the loans are awarded the loans. Presently, the HELB is advancing loans to 37,000 undergraduate and 450 postgraduate students whereas 14,000 are benefiting from bursaries and 35 students are offered scholarships. However, considering the current high enrolment of about 90,000 students in the universities, HELB faces the challenge in meeting the high demand. By 2005, HELB had disbursed loans worth Kshs 18 billion and Kshs 200 million to public and private chartered universities, respectively.

7.5.2   HELB has instituted prudent loan recovery measures, which has enabled it to collect an average of Kshs 70 million per month in 2004/2005 as compared to Kshs 1 million per month in 1995/06. During 2004/05, about 20,000 loanees completed paying their loans. However 60,000 are still repaying the loans while another 60,000 are yet to start paying. This has made it difficult for the HELB to establish a viable and sustainable revolving fund and investment. Other challenges that the HELB faces include:

   (i)   Growth in 1980s and 1990s in the number of students in universities with most of them requiring support due to high levels of poverty, whereas allocation for loans, bursaries and scholarships has not grown at the same rate;

   (ii)   Inadequate funding - current funding is insufficient in relation to the rapidly growing number of Kenyans seeking higher education, leading to wastage;

(iii)   High level of unemployment rates in the country due to weak economy thus leading to high default rates;

(iv)   Low loan recovery rate.

(v)   The sustainability of the fund is threatened by the current Low interest rate of loans at of four per cent per annum, which is substantially lower than the market rates

(vi)   High HIV/AIDS related deaths - the Board writes off loan repayment from people who have died due to HIV/AIDS related sickness;

(vii)   Migration of the loanees – some beneficiaries of the loan scheme have migrated in search of employment elsewhere and this has made it difficult to recover loans from them;

7.5.3   To adequately respond to the ever increasing demands for financial assistance by students pursuing higher education and training, there is need to review HELB's mandate with a view to re-structuring it accordingly. HELB should be transformed into a strong financial institution capable of supporting higher education students in both public and private institutions. It should therefore be restructured to become an education financial institution with the responsibility of mobilizing resources from financial market, government, development partners, endowments, foundations, trusts and other sources. This is in addition to mounting an aggressive programme to recover loans advanced to past students. Resources from above mentioned sources should enable restructured HELB to establish and manage a revolving fund and to undertake prudent investments of funds not required immediately. The funds mobilized from various sources and the funds in revolving fund and investments should be used to adequately respond to the increasing demand for financial assistance by students as shown in Figure 7.4.

Recommendation 7.18

a)   *To raise, and manage funds for student loans, HELB needs to be restructured and capacity of its staff strengthened.*

b)   *The government should act as a grantor to enable HELB to borrow adequate funds from the financial market.*

7.5.4   The Board noted that HELB has the basic legal framework to enable it to develop into a strong financial institution capable of supporting higher education students in both public and private institutions, including middle-level colleges. However, HELB needs to develop mechanisms for exploiting the existing provisions in Act. This will entail building the capacity of HELB towards becoming an efficient and effective financial player in the administration, management and investment of funds and disbursement of loans, bursaries and scholarships to students pursuing higher education and training in Kenya.

7.5.5   Students and higher education and training institutions can access resources under HELB through a number of mechanisms, such as:

(i)   Full scholarships based on merit and agreed national priorities of their disciplines;

(ii)   Loans to needy students, - this may be full or partial cost of the courses taken at any university. To undertake this task, HELB should review, strengthen and apply fully the objective mean-testing mechanisms for efficient and effective criteria for identifying needy students. This should be undertaken with full involvement of local communities and;

(iii)   Earmarked funds such as bursaries for students with special needs, equity (gender, regional etc.) and scholarships based on such consideration as performance, sports and dean's honours list.

7.5.6   The funding to both public and private universities should be driven and targeted to the number of needy students admitted to each university subject to agreed national priorities in specific programmes and/or courses. There are several sources of support for students (for instance, local authorities, CDF

and philanthropies) through different organizations, institutions and individuals and therefore, a student might benefit from some or all these providers. There is need therefore for HELB to facilitate sharing of information on student sponsorship by maintaining a register of students receiving support from various sources.

Recommendation 7.19

The current loan repayment interest rate of four per cent should be adjusted to reflect the real cost of borrowing capital and be pegged to the Treasury Bills interest rate starting January 2007.

Recommendation 7.20

HELB should spearhead the review of the current means- testing mechanisms.

Recommendation 7.21

a) *HELB should be legally empowered to facilitate and coordinate sharing of information on sponsorship of students from various providers in institutions of higher education and training.*

b) *HELB should establish and maintain a comprehensive database of students of higher education and training and share the data and information with all stakeholders including, KRA, National Social Security Fund and Kenya Federation of Employers.*

7.5.7   Needy students are likely to be adversely affected by the increased fees due to differentiated unit cost. To meet this need, the government funding should be available through HELB. Students who need financing should apply and, on qualification, be funded through agreed criteria at pre-determined real unit cost. Because of the sensitivity of differentiated real unit cost, the following options should be considered to ensure that parents and students have access to funds to meet the cost of education and training;

- Income contingent loans – in income contingent loans, students borrow funds from the government to cover the costs of tuition and (partly) the costs of living while pursuing studies. When graduates start to work, they pay a proportion of their income to cover the cost of the loan ;

- Graduate taxes - under a graduate tax system, every graduate receives an amount of resources. The government finances this through issuing education government bonds. Graduates pay a fraction of their lifetime incomes to the government via the graduate tax;

- Education lottery – this would ensure that the public indirectly supports higher education; and

- Education insurance – this should encourage households to save so that they can finance higher education. Giving parents incentives such as tax rebate should encourage them to invest in education insurance.

Recommendation 7.22

A study should be carried out to establish suitability of alternative funding mechanisms for needy students.

Figure 7.4:   **Enhanced Role of Higher Education Loans Board**

Source of Resources   *Investment of the Resources*   *Utilization of the Resources*
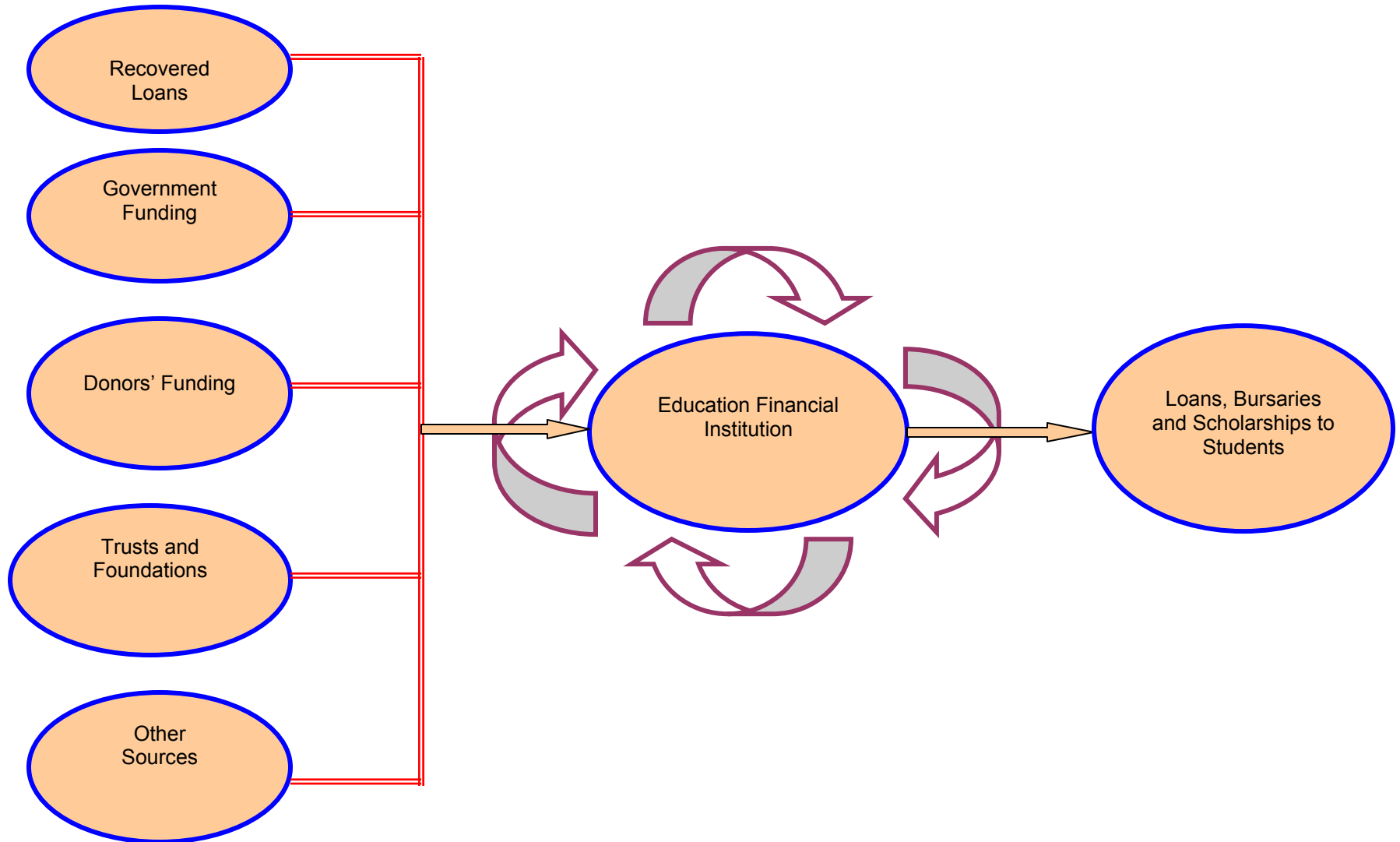
7.6   A MECHANISM FOR DETERMINATION AND ALLOCATION OF RESOURCES FOR UNIVERSITY EDUCATION IN KENYA

7.6.1   CHE was established in 1985 as a corporate body was mandated by the Universities Act , among other things,

- to plan and provide for financial needs of university education and research including the recurrent and non-recurrent needs of universities, including the recurrent and non-recurrent needs of the universities;
- to determine and recommend to the Minister the allocation of grants of money for appropriation by Parliament to meet the needs of university education and research, and
- to review expenditure by universities of money appropriated by Parliament

7.6.2   For a time, funds allocated to public universities were channeled through CHE for onward transmission to the universities. Currently, the Ministry of Education is channeling student loans through HELB while other allocations go directly to each public university. The Board noted that the mechanism utilized to determine allocation of what goes to each university or programme is not well-articulated and does not provide space for presentation and discussion of the specific needs of each university. With the envisaged future role of CHE as the key quality assurance regulator for tertiary education, the introduction of differentiated unit cost and the envisaged competition for public funds especially for innovative and strategic programmes, a transparent and accountable mechanism needs to be established to modulate allocation of available resources.

7.6.3   The Board was informed that the University Grants Committee used to play this role in the initial stages of the development of university

education in Kenya. In absence of this sort of mechanism, it was observed that the level of resource allocation to some public universities was based on assumptions that no longer hold.

Recommendations 7.23

      a)   *University Grants Committee (UGC) should be re-vitalized, through the proposed legal reform to become an independent mechanism for the processing of universities' financial needs and allocation.*

      b)   *The proposed UGC should formulate a mechanism to determine the needs for each institution and programme and come up with a formula for equitable and transparent allocation of the available resources.*

      c)   *Once the allocation process is completed, the funds should be disbursed to the institutions directly as is the case at present.*

      d)   *The terms of reference and modes of operation of UGC should be worked out in partnership with the main stakeholders.*

7.7   CONCLUSION

7.7.1   Higher education plays a critical role in the development of any economy nationally or internationally and benefits individuals and the society at large. However, higher education is expensive and cannot be left as the sole responsibility of the government. With support only from the government, funding of higher education cannot be sustainable. Therefore, higher education needs secure and sustainable financing to meet the economic and social demands for expansion while enhancing access and equity and improving quality and relevance. To ensure sustainability of funding of higher education cost-sharing and partnership of all stakeholders is the way forward. Policies on cost recovery, including tuition fees, other charges, and deferred payment schemes all need to be developed through well-designed programmes of student support and financial aid.

Introduction of differentiated unit cost and student charges need to be carefully monitored, to assess their impact on access and equity. In pursuit of the desired goal, student loans have a positive role to play in ensuring that students have adequate support to pursue their studies. However, they need to be well-designed, managed and should be combine with well-targeted grants, scholarships, and other subsidies to ensure that the most disadvantaged students are not discouraged by fear of debt. The future trend should, therefore, be to strengthen the current reforms on institutional autonomy for higher education institutions. The financial incentives in the funding of these institutions should encourage diversity, flexibility, responsiveness and innovation but these must be combined with careful monitoring to ensure accountability, transparency and consistency with national policy priorities.

Figure 7.5:   Contribution Mix between Government and Household for Government-Sponsored Students in Public Universities: 2003/04
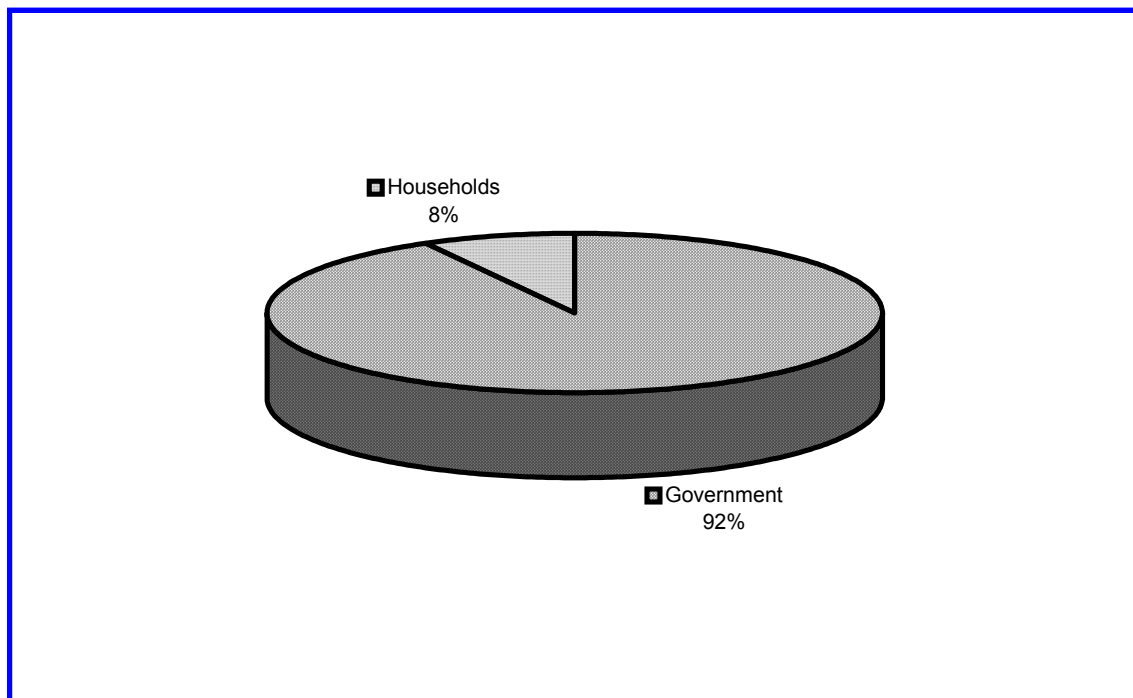
Source: Ministry of Education Science & Technology, Ministerial Public Expenditure Review 2005,

Figure 7.6:   Projected Contribution Mix by 2015
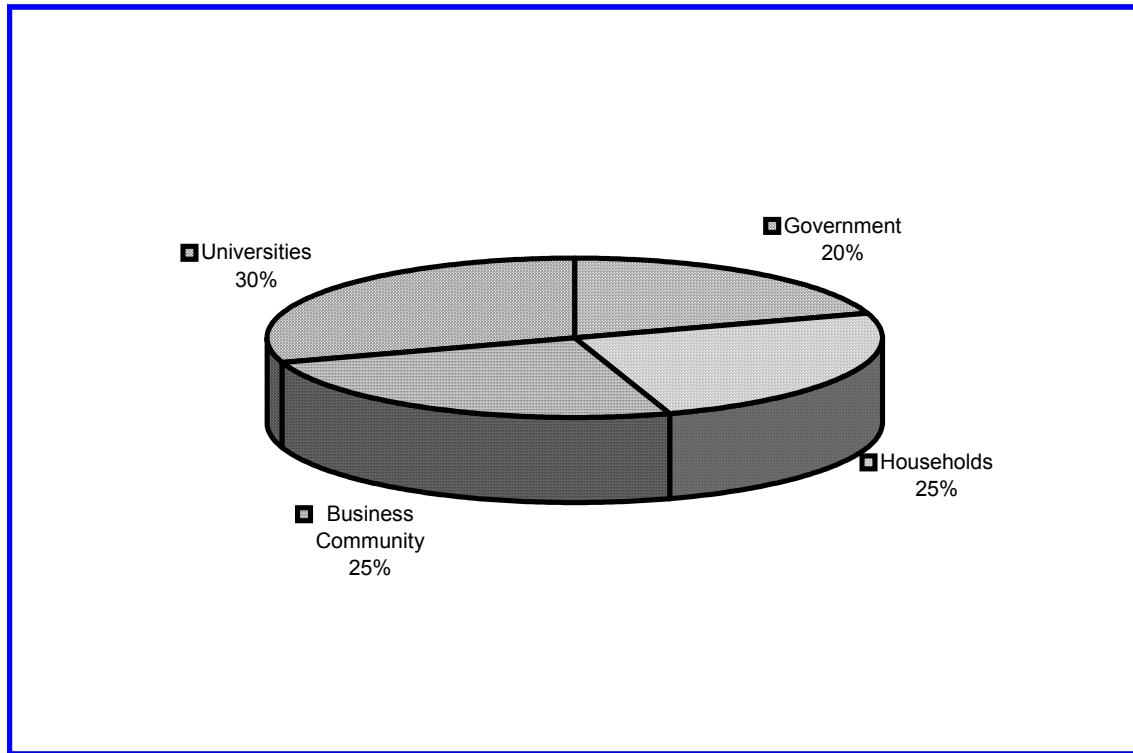
Source: Board Generated Data, 2006

7.7.2   Government sponsorship to university education should, in future be limited to the exchequer's ability while the balance of the budget is fully covered through private sector support household's contributions, university self-financing programmes and support from development partners.   A framework should be put in place to ensure that the synergy arising from partnerships and cooperation of all the stakeholders enrich the financial base of all universities in Kenya.

7.7.3   In summary, university education and training requires huge investments by all partners, hence the need for a transparent and accountable process for allocation of the available public resources while mobilizing other stakeholders to supplement the government's financing. Without a working partnership on financing, it will be hard to address the current challenges relating to access, equity, quality and

relevance. Also the current heavy household financial burden especially among poor households is unlikely to be adequately addressed. A more sustainable financing mechanism will entail moving from the contribution mix shown in Figure 7.5 towards the one shown in Figure 7.6 above. Figure 7.5 shows the contribution mix between government and household for self-sponsored students in public universities for the 2003/2004 academic year. However, the introduction of self-sponsored students as full-fee paying students has changed this mix and households are now contributing more than forty per cent towards financing university education.

7.7.4   As Board has observed, households are currently paying the real costs in local private and foreign universities, and self-sponsored programmes in public universities. It is obvious that Kenyans are ready to pay for university education as long as they are assured of access and quality programmes. It is further, observed that those pursuing the various programmes are not only, the rich, but many poor families struggling to acquire benefits of higher education.

CHAPTER EIGHT

GOVERNANCE AND MANAGEMENT IN HIGHER EDUCATION

8.1   INTRODUCTION

8.1.1   Higher education sector in Kenya has generally followed along the lines of international developments in higher education over the last four decades. Higher education development in the country started with the Royal College Nairobi which became a constituent college of the University of East Africa soon after independence. This gave birth to the University of Nairobi in 1970. Its initial responsibilities included providing university education in Kenya, accrediting foreign university qualifications and advising the government on policy and regulatory issues. Moi University was subsequently established through the Moi University Act, (1984). The following year, the Universities Act of 1985 was enacted which established the Commission for Higher Education (CHE) as a policy advisor and regulator of university education and introduced a framework for the establishment of private universities. Since then, four other public universities have been established. These are Kenyatta University (1985), Egerton University (1987), Jomo Kenyatta University of Agriculture and Technology (1994), Maseno University (2000). Western University College of Science and Technology was established as a constituent college of Moi University in December, 2002 through a legal Notice No 373. In addition, seven private universities have been granted charters, six have letters of interim authority and six have certificates of registration.

8.1.2   This chapter reviews and presents findings from stakeholders and makes recommendations on the legal framework governing higher education in Kenya, the governance and management of public universities, the appointment of the Chancellors, Vice-Chancellors and other officers of public universities, and the role of CHE as a regulator

of higher education sector. The Board has taken into consideration views from various stakeholders and has made various recommendations geared towards a harmonized and comprehensive legal framework, expanded roles of CHE and HELB and necessary reforms in the management and administrative structures of these universities.

8.2   LEGAL PROVISIONS

8.2.1 Establishment of Universities

8.2.1.1   Universities are established through decrees, charters or acts of parliament to provide them with legal authority to operate within certain jurisdictions. These instruments provide universities with legal protection to pursue their major objectives to teach, undertake research, and provide service to community. The legal instruments enable universities to be committed to search for truth and uphold academic freedom. Truth sometimes conflicts with prevailing norms and opinions, hence the granting of charter confers autonomy on the university to pursue ideas and express opinions in the context of freedom of thought.

8.2.1.2   The instruments establishing universities define the locus of the freedoms within which the university operates, specifies the obligations of the university to the public, and indicates to whom the university is accountable. However, to the extent that universities are allowed to operate on the basis of a legal instrument (public declaration and acknowledgement of their existence), they are expected to operate within acceptable normative values, and reflect the national ethos and philosophy.

8.2.1.3   The legal framework for higher education in Kenya is embodied in the Education Act of 1968, the Acts of Parliament of each individual public university, the National Council for Science and Technology Act (1977), the Universities Act of 1985 establishing CHE and the Higher Education Loans Board Act (1995). Public universities are also governed by the State Corporations Act Cap 446 of 1987.

8.2.1.4   The individual university Acts give the institutions mandates and latitude to exist as corporate bodies with perpetual succession and a common seal capable of;

- Suing and being sued;

- Taking, purchasing or otherwise acquiring, holding, charging and disposing of movable and immovable property;

- Borrowing or lending money; and

- For the proper performance of their functions under the Act.

8.2.1.5   The six public universities in Kenya have been established by Acts of Parliament These Acts are similar, having been based on the template of the University of Nairobi Act as a model in terms of;
- The structure
- The organization
- The governance mechanisms
- The financial provisions
- The ancillary statutes

8.2.1.6   The private universities have been established through accreditation process. The academic programmmes in private universities are specifically accredited by the Commission for Higher Education. In contrast, public universities are self-accrediting, since the Acts establishing them confer them with absolute authority to determine

what is to be taught, how and by whom. Public universities have therefore not been subjected to any external quality assurance, although this is provided for in the relevant Acts.

8.2.1.7   All public universities were established from existing institutions except Moi University. Currently, the Ministry of Education is in the process of upgrading Kenya and Mombasa Polytechnics to enable them award degrees while retaining their diploma and certificate courses.

8.2.1.8   The Board analyzed the Acts, statutes and various management policies and practices governing higher education in Kenya, received views from stakeholders and perused documents from other countries such as South Africa, Tanzania, Australia and New Zealand that have recently undertaken a process of restructuring higher education sector. The Board noted that in countries where education restructuring has taken place, there has been an all-inclusive overarching Act for management and development of higher education.

Recommendation 8.1

A comprehensive unifying legal framework needs to be established in Kenya to guide all aspects of higher education in the country.

8.2.2 Autonomy of Universities

8.2.2.1   The public universities have had a lot of autonomy on how to teach, what to teach and who to teach through their senates. This autonomy has been enhanced by new developments of self-sponsored students, competitive appointment of Vice-Chancellors and other staff. The government's representation in council provides for ownership of decisions that could require substantive investment from Treasury and can facilitate negotiations for grants from development partners. Although some university statutes provide for the Councils to

determine the maximum number of students to be admitted, there have been occasions when the government instructed the universities to increase their intake without appropriate capitation. Delay in implementation of the unit cost is seen by the universities as a limitation of their autonomy.

8.2.2.2   The Board observed that there is a glaring discrepancy in applying the principle of autonomy between the public and the private universities. For example, private universities must have approval from CHE to start new programmes even after being granted a charter whereas public universities do not require this approval.

8.2.2.3   The Board notes that the identification of prospective members to the various governing bodies of public universities, CHE, HELB and other educational agencies is currently done through MoE. This process could encourage political patronage, favouritism, lobbying and thus compromise their transparency and accountability. The Board is of the view that there should be a Nominations Committee comprising officers from the Ministry of Education, higher education institutions and the Public Service Commission. This committee would conduct a search to ensure identification of members with the right competencies, experience and stature to add value to the institutions, and their overall development. Names of the best three short listed candidates will then be forwarded to the appointing authority.

8.2.2.4   The Board observes that universities can only thrive as crucibles of knowledge when they operate with freedom to decide on how to carry out their mandates as institutions of higher learning and therefore their autonomy should not only be safeguarded but should also be enhanced and enshrined in law.

8.2.3 Academic Freedom

8.2.3.1   Universities' stakeholders informed the Board of the need for entrenching and safeguarding academic freedom in the legal framework to be enacted to guide the development of higher education in Kenya. Academic freedom was perceived as essential foundation for creativity, innovation and space to explore new frontiers of knowledge and expression of new ideas.

8.3   LEGAL CONSTRAINTS IN THE UNIVERSITY ACTS AND STATUTES

8.3.1 Divergences in the University Acts

8.3.1.1   The hallmark of any sector's legislation should be fairness, justice, equity, flexibility and clarity to avoid conflicts and ambiguity in governance and management of institutions.

8.3.1.2   Some fundamental differences in the public universities' Acts include setting up of programme fees, variations in appointment of Vice-Chancellors, Deputy Vice-Chancellors, Principals of Colleges; contract periods of managers and management bodies, number of Deputy Vice-Chancellors and representation in management bodies.

8.3.1.3   There are variations in representation of postgraduate students in the university governance organs (Council and Senate). Some public universities' allow for representation of postgraduate students in Senate, while others do not. However, undergraduate students are represented in both the Council and Senate.

8.3.1.4   While this diversity in the Acts of different universities might be viewed as a right due to the need for institutional autonomy of the respective

institutions, some aspects can be perceived as giving unfair advantage to some universities over others.

8.3.2 Current weaknesses in the Act

8.3.2.1 The Board has noted several weaknesses in the Universities Act.

- Any amendments to the act in order to provide for new provisions in delivery systems and developments in higher education require Parliamentary approvals which are time consuming. Because of their self-accreditation status, public universities usually respond to market demands leading to the establishment of new academic programmes without appropriate quality assurance provisions such as qualified staff and equipment. They have used the current Acts to insulate themselves from external quality assurance requirements.

- Since the University of Nairobi Act has been used as a template in drafting other universities' Acts, there has been a tendency to reproduce the provisions without due regard to specific problems and character of the individual universities.

- There is a major conflict between the Universities Act (1985), establishing CHE, and the individual Universities' Acts. The application of 1985 Act is perceived to be unfair to private universities as it empowers CHE to accredit private universities but not the public ones.

8.3.2 Constraints of Governance

8.3.2.1 Although individual universities Acts provide for broad governance structures, specifying the sizes of governing bodies and key offices of the university, these are not the same in number and composition. Some universities have statutory governance boards such as

university management board, while others have internal colleges/campus colleges headed by principals and established by University Acts.

8.3.2.2   The acts are generally silent on the basic administrative unit of the university. Consequently, whereas the basic academic unit is the department; the basic administrative unit is either the faculty or the college. This generates conflicts between academic and administrative leadership since academic heads such as heads of departments have limited statutory authority to discipline staff.

8.3.2.3   Some of the university acts, generally, provide for academic staff as being the Deputy Vice-Chancellor, the librarian and all teaching staff/researchers among others. The Vice-Chancellor is not categorized as a member of academic staff although he/she is head of senate which is the senior academic committee nor is the Vice-Chancellor categorized as administrative member of staff, yet for all practical purposes, the Vice-Chancellor is the chief executive officer and hence chief academic and administrative officer. Furthermore, the statutes of some universities exclude the Vice-Chancellor and Deputy Vice-Chancellor from academic staff.

8.3.3 Limitations of Statutes

8.3.3.1   The statutes establish regulations which are made by senate for the governance of the university. These statutes include establishing departments and faculties as well as those which specify students and staff conduct and discipline. The requirement of most of the acts is that they must be published in the Kenya gazette. The intention of this provision is to ensure quality assurance, public awareness and accountability.   Nevertheless, some universities have continuously

established new programmes and undertaken restructuring without having these actions being gazetted and hence not entrenched in law.

8.3.3.2   Finally, the acts provide for the university councils to prescribe fees and boarding charges as well as to set terms and conditions of service including discipline of members of the university staff. Nevertheless, the practice is that the council is unable to carry out some of these functions directly without approval of the government.

8.3.3.3   The acts also prohibit any amendments to a statute relating to the functions or privileges of the Vice-Chancellor without first seeking the opinion of the senate. It is noted that changes in some universities have been undertaken without appropriate consultation with senate.

8.3.3.4   The Board noted that existing acts and statutes have not provided for adequate effective mechanisms of dealing with sexual harassment and procedures for dealing with unresolved complaints within each institution.

Recommendation 8.2

    a)   *There is need for the enactment of a Higher Education Act to provide for the establishment and development of institutions higher education.*

    b)   *The proposed Act should adequately empower CHE to execute fully its mandate in higher education sector.*

    c)   *The proposed Act should also provide for the establishment of a Nominations Committee that will oversee the identification of and short listing of competent members of the public for the appointment to the governing bodies of higher education institutions (CHE, HELB, universities Councils and other education boards and agencies)*

Recommendation 8.3

The Higher Education Act should empower the relevant minister to establish higher education institutions through legal notices after recommendations by CHE and after making appropriate consultations with stakeholders.

Recommendation 8.4

The existing public universities must review their statutes to conform to the provision of Higher Education Act once it is enacted.

Recommendation 8.5

Institutional mechanisms to deal with sexual harassment and other unethical behaviour should be established within the universities and higher education regulatory/service bodies.

Recommendation 8.6

An external mechanism for dealing with unresolved complaints from students and staff should be established as a fall back position for complainants emanating from universities or regulatory bodies.

8.4 CURRENT TRENDS AND DEVELOPMENTS IN HIGHER EDUCATION AND THEIR LEGAL IMPLICATIONS

8.4.1   The Board notes that there are new developments that were of great benefit to the universities, and can serve to enhance accountability and transparency in governance and management. For example, self-sponsored programmes have expanded access and invigorated student's body and provided additional resources. The unions have also enhanced democratic space and appointment of a Chancellor for each university has provided the opportunity to brand themselves with their own unique character. However, the Board has received submissions that the current acts do not address the new developments in higher education. These developments are:

  - Appointment of Chancellors;

- Competitive appointment of Vice-Chancellors ;
- Establishment of university companies to manage income-generating activities in the universities;
- The introduction of self-sponsored programmes;
- The emergence of new staff unions namely UASU and UNTESU.

8.4.1 Appointment of University Chancellors

8.4.1.1 Since the establishment of the University of Nairobi, in 1970, the Chancellor has always been the Head of State. However in 2003, the Head of State decided to appoint Chancellors for each of the public universities.

8.4.1.2 Although there is provision for this in the University Acts, the new practice has brought with it some salient challenges that need to be addressed. The Board has received submissions that roles and functions of Chancellors need to be clearly defined in the proposed Higher Education Act to avoid ambiguity of responsibilities of Chancellors, Chairpersons of Councils and Vice-Chancellors.

8.4.1.3 The Board notes that the universities' acts and statutes empower the Chancellors with the following functions:

i) Shall be the head of the university and shall, in the name of the university, confer degrees and grant diplomas, certificates and other awards of the university;

ii) May from time to time direct an inspection of the university or inquiry into teaching, research or any other work in the university;

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May arrange for visitation into general administration and organization of the university in such a manner as may be provided in the statutes;
May from time to time give advice to the Council which he considers necessary for the betterment of the university;
Shall enjoy such powers and privileges and perform such other functions as may be provided in the statutes.

8.4.1.4 The Board also observes that most of the Chancellors are renowned scholars, distinguished professionals and eminent persons who could find it difficult to maintain a hands-off approach as was being suggested by some stakeholders. The universities themselves would benefit greatly from such expertise but this would require a judicious and diplomatic balance between the roles of Chancellor, the Vice-Chancellor and the Councils. It is envisaged that the higher education act proposed in recommendation 8.2 will address these new developments.

8.4.2 Management of Income-Generating Activities and Innovations

8.4.2.1 With decreased funding from the government, some public universities have established private companies to oversee and manage income-generating activities. The bulk of these activities rotate around admission of self-sponsored students and consultancy services. The universities of Nairobi and Moi have formed limited liability companies namely: University of Nairobi Enterprises and Services Company (UNES), Moi University Holdings Company (MUHC) respectively.

8.4.2.2 Jomo Kenyatta University of Agriculture and Technology and Moi University have established offices of technology transfer to manage and market innovations generated by their staff. The University of

Nairobi is also in the process of establishing a technology park and it is expected that the innovations generated from this park will be marketed as private goods. The current university acts do not have provisions for management and ownership of innovations, inventions and intellectual property rights. This has led to lack of clarity on ownership of research findings, patenting and compensation. Universities should study closely the existing laws on intellectual property rights to see if their interests are adequately safeguarded.

8.4.2.3 These university companies have their own legal setups. This is to be expected because the entrepreneurial functions of universities need to be separated from the day-to-day operations of the institutions. The Board has noted that these new entities have brought into sharp focus the relationship between the chief executives of these companies and the Vice-Chancellors. With heavy representation of the university management on the board of the companies, the hierarchies present in the university structures can easily be transplanted here. This could lead to lack of independence, transparency and accountability.

8.4.2.4 The Board notes that the companies have greatly enhanced the resource base of some of the public universities. However, due diligence must be exercised to ensure that these companies function as agencies of the universities in order to protect university assets and insure the institutions against liabilities.

Recommendations 8.7

Companies established by public universities should be run as agencies and not holding companies and should respect the tenets of good corporate governance.

Recommendation 8.8

> *The proposed higher education act, intellectual property rights Act and contractual agreements should have provisions to define and protect the rights of universities, researchers and sponsors in research, innovations, inventions and other forms of intellectual property.*

8.4.3 Self-Sponsored Students Programmes (SSP)

8.4.3.1   To expand access and open up new streams for income generation, universities started self-sponsored degree programmes in 1997. These self-sponsored student programmes have brought in an entirely new constituency whose needs in admission, financing and representation in the governance organs and student unions have to be addressed. Indeed, many self-sponsored students informed the Board that they felt that their interests and problems were never sufficiently addressed as they did not have representation in those bodies where they could voice their problems. For example, some of the SSP students undertaking B.Ed programmes have been complaining that they are forced to do teaching practice which they had already done during their P1 and diploma studies. They want to see this issue addressed to their satisfaction.

8.4.4 Unionization of Staff Affairs

8.4.4.1   The emergence of strong staff unions with chapters in each public university makes it imperative that issues that affect staff are handled in a transparent manner and shared among the universities. The Board noted that some union members also held management positions in the university. This is obviously a conflict of interest. Another source of conflict is where one chapter of a union influences another chapter to agitate for change or benefits that are perceived be enjoyed in on institution. This could raise unnecessary conflict and differences in crucial areas of university governance and management.

Recommendation 8.9

    a)   Leaders of organized unions should not be in university management to avoid conflicts of interest.

    b)   Universities should clearly re-define the levels of management bodies, their memberships, roles and entitlements.

8.4.5 Implications of the State Corporations Act on University Governance

8.4.5.1   Public universities have been granted land by the government and have had their infrastructure developed with public resources. They also receive capitations from the government through the budget and, traditionally, most of their students have been beneficiaries of government loans administered by the Higher Education Loans Board. These universities have been classified as state corporations subject to the State Corporations Act, (Cap 446), 1987) of the Laws of Kenya which places state corporations under some controls and regulations. This has implications for the autonomy of the corporations. For instance, the governance of the university as a state corporation necessitates inclusion of particular actors in the Council. While there is room left for other actors, the issue that needs to be addressed is how effectively and timely the institutions can respond to the needs of their clientele and remain competitive in light of the requirements of Cap. 446. The Board is of the view that the proposed higher education act and necessary amendments to Cap 446 will enhance independence in regard to the provisions of the State Corporations Act.

Recommendation 8.10

Public universities should operate independent of the State Corporations Act.

8.4.6 Non-discrimination Provisions

8.4.6.1 The Acts establishing the universities provide for non-discrimination in admission on the grounds of ethnicity, sect and creed only. It is noteworthy that only Maseno University makes gender an objectionable ground for discrimination. The other universities' statutes are silent on this matter. The Board appreciates the fact that universities in their strategic plans have now committed themselves to non-discrimination of students and faculty on the basis of gender.

Recommendation 8.11

The legal provisions of non-discrimination should include, specifically, gender, special needs and age in all aspects of university education in addition to ethnicity, sect and creed.

8.5   THE COMMISSION FOR HIGHER EDUCATION (CHE)

8.5.1. Establishment of CHE

8.5.1.1 The Commission for Higher Education (CHE) was established through the Universities Act of 1985 as a corporate body with perpetual succession and a common seal with powers to sue and be sued and to enter into contract among others.

8.5.2 Functions of CHE

The functions of CHE broadly include the following:

- Promoting the objectives of university education;
- Advising the Minister on the establishment of public universities;
- Accrediting universities;
- Considering applications for establishment of universities in Kenya;
- Quality assurance in the universities.

8.5.3 Membership of the Commission

8.5. 3.1 The membership of CHE as provided by the Universities Act is composed of a Chairman and Vice-Chairman appointed by the President, four permanent secretaries, not more than 15 and not less than 11 people appointed by the President, on the basis of their experience in university education and research, four persons appointed by the Minister, and not more than 3 members co-opted by the commission. The size of the Commission, therefore, ranges from 21 to 28.

8.5.3.2 Currently, all the six Vice-Chancellors of public universities and the Principal of Western University College of Science and Technology are members of the Commission. The Board received submissions that this places the chief executives of public universities in a position of conflict of interest, and limits the capacity of CHE to determine matters affecting public universities without fear or favour. With the envisaged strong role of CHE as the quality assurance body of all universities, this position will become more increasingly untenable.

Recommendation 8.12

a) *The Vice-Chancellors of the public and private universities should not be members of the Commission for Higher Education.*

8.5.4 Achievements of the Commission

8.5.4.1 In spite of various constraints, the Commission for Higher Education has made some major achievements in the development of higher education in the country. These include:

- Completion of quality assurance processes for seven private universities leading to award of charters;

- Inspection of six private universities leading to awards of letters of interim authority;

- Development of various instruments for facilitation of quality assurance which include instructional materials and programme standards;

- Development of a directory for all middle-level colleges in the country;

- Development of university library standards and;

- Articulation and gazettement of Legal Notice No 112, (2004) on regulations for validation of post-secondary institutions.

8.5.5 Constraints and Challenges of CHE

8.5.5.1   While CHE has contributed to the development of private universities, it has been unable to actualize the various roles as provided by the Universities Act (1985) in particular, the accreditation of public universities' programmes and admissions into public universities (JAB). In future, CHE will face the challenges of providing quality assurance and accreditation to all universities, maintaining comprehensive statistics on higher education, establishing dispute resolution mechanisms for the sector and providing advice to the Ministry of Education on the development of higher education in Kenya. These new functions have been articulated in various chapters of this report.

a)   **Legal Provisions to Address Current Challenges**

To face the current and emerging challenges in accreditation and quality assurance of local and foreign universities a robust legal framework for CHE is required.

Recommendations 8.13

a) *The Board recommends that within the legal framework of the proposed Higher Education Act, CHE be fully empowered to carry out its various roles and responsibilities as articulated in this report*

b) *CHE be empowered to legally establish a Joint Admissions Board, Quality Assurance Unit and Statistics Office, Dispute Resolution Committee as mechanisms for effective administration of higher education.*

c) *CHE should formulate standards, guidelines and procedures for admission of applicants into institutions of higher education ensuring that they adhere to principles and values set out for higher education in Kenya such as non-discrimination, access, equity and quality while allowing universities the autonomy to admit students.*

d) *CHE should establish a dispute resolution mechanism (a tribunal) and lay out the mechanisms for dealing with disputes and complaints. This should be chaired by a judge or a person qualified to be appointed as judge.*

e) *CHE should develop and enforce a manual for institutional reporting as a standard requirement for all higher education institutions.*

b) Financial Constraints

8.5.5.2 The budgetary allocation of the CHE has averaged Kshs 100 million over the last four years. While this amount might have been sufficient to carry out the current activities of CHE, it will be grossly insufficient to cater for the expanded role of CHE. For example, currently CHE staff establishment stands at 70, while the restructured CHE will require additional highly qualified personnel in its departments dealing with accreditation, policy planning, research and statistics, quality assurance and administration and finance, as well as updating, ICT

infrastructure and equipment. Additional funds for the expanded mandate will be required.

Table 8.1: Budgetary Allocation of CHE for the Years 2002 to 2005

Year	Amount in Kshs (million)
2002	100
2003	102
2004	102
2005	133

Source: CHE, 2005

c)   Constraints in Accreditation Process

8.5.5.3   Private universities have informed the Board that the accreditation process is too costly and lengthy. Vice-Chancellors in the private universities are concerned that the fees charged by CHE are exorbitant. Current levels of fees charged are as indicated in Table 8.1 below.

8.5.5.4   Private universities have also reported that they find the process of registration and accreditation of universities lengthy, lacking in clarity and not tailored to appreciate differences between institutions. However, CHE has explained that there are several factors that cause delay in the accreditation process. These mainly revolve around the working of the committees in coordination with specialists in subject areas. Committee members and resource persons have other responsibilities which makes coordinating CHE meetings time-consuming.

Table 8.2: Accreditation and Inspection Fees Levied by CHE

Activity	Fees (Kshs.)
1. Application fee	60,000
2. Annual subscription fees	20,000
3. Activities leading to granting of letter of interim authority	
(a) Evaluation of one academic programme	40,000
(b) Inspection of institution	90,000
(c) Issuance of letter of interim authority	60,000
4. Activities leading to award of charter	
(a) Evaluation of one academic programme	80,000
(b) Evaluation of draft charter	30,000
(c) Inspection of institution	180,000
(d) Award of charter	120,000
5. Re-inspection of one academic programme	
(a) Evaluation of one academic programme	160,000
(b) Re-inspection of institution	600,000

Source: Legal Notice No.160, 2002

Recommendation 8.14

The accreditation and validation process of programmes should continue to be carried out by CHE for both public and private universities but the current process needs to be reviewed to enhance effectiveness and efficiency. In particular, specific deadlines should be set for the process.

Recommendation 8.15

The proposed Higher Education Act should make provisions for purposes of validation by CHE and upgrading of programmes and collaboration middle-level colleges with universities to offer degrees programmes.

Recommendation 8.16

> *That the establishment of new campuses by local and international bodies and decisions on the courses offered in middle-level colleges campuses should be subjected to scrutiny by CHE under the proposed Higher Education Act.*

d)   Human Resources

8.5.5.5   Staffing in the commission has remained at levels that were rationalized when it was dealing only with accreditation and quality assurance of private universities. The number of private universities has increased and the work of the commission has also increased. In addition, the Board's recommendations that CHE plays a more visible and effective role in various areas of higher education development will necessitate fundamental restructuring of the organization. Such a restructuring should be followed by competitive recruitment of staff, capacity building, and development of competitive terms and conditions of service to attract reward and retain qualified personnel.

Recommendation 8.17

> a)   *CHE should be restructured to reflect its expanded mandates in higher education. An independent agency should be commissioned to undertake the required restructuring.*
>
> b)   *The Board recommends the establishment of Higher Education Quality Assurance Unit within CHE, which would provide a mechanism for external quality assurance for all universities.*
>
> c)   *A restructured and revitalized CHE should recruit its staff competitively to bring in competencies and skills needed for the expanded mandate.*

d) CHE should maximize outsourcing and utilization of expert/professional committees for accreditation, inspection and quality assurance purposes.

e)   Infrastructure

8.5.5.6   The Commission has in the past been constrained by poor ICT infrastructure. It is expected that the recent established connectivity through KENET will improve access to the internet, provide better communication and improve service.

8.5.5.7   The current location of CHE raises critical question of accessibility, security and safety. The proposed expanded mandate of CHE will require it to have adequate operating space, with room for expansion and that is accessible to both its workers and clients. The Board is aware that the government has embarked on the construction of new premises of CHE and hopes that this is a place which will reflect the true status of CHE as a both champion and leader of the development of Higher Education in locally and internationally. CHE premises should have adequate facilities that reflect its central role as quality assurance body in higher education.

Recommendation 8.18

CHE should be adequately funded to enhance ICT infrastructure and physical facilities.

f) Appointment of Commission Chief Executive and other Senior Officers

8.5.5.8   The Universities Act (1985) provides for the appointment of the Commission Secretary by the Minister for Education, and Deputy

Secretaries by the Commission. However, the practice has been that the government appointed the Deputy Secretaries. The Board notes that Deputy Secretaries are now being recruited on a competitive basis. This practice negates the competitive recruitment of top management of institutions of higher learning.

Recommendation 8.19

Commission Secretary and all other cadres of staff should be recruited competitively to enhance competence, and acquisition of requisite skills and quality leadership.

8.5.6 National Qualification and Certification Framework

8.5.6.1. Currently, CHE validates every programme in private universities separately and validation is not transferable to another programme or institution. One of the major problems that emanates from this process is the absence of a recognized credit transfer system in higher education in Kenya. Presently, there are no agreed guidelines; individual institutions decide on their own without reference or input from other interested parties. The Board notes that the employers currently face major problems in determining the hierarchy and value of totally unrelated certificates that are being issued by hundreds of different training institutions in the country. A system for the equation of qualifications would go a long way towards redressing these anomalies. It would also be in keeping with international trends of transfer of credits across institutions of higher learning and across countries. A National Qualification and Certification Committee (NQCC) will be able to deal with the above constraints.

8.5.6.2   The functions of NQCC would include:

a)   Providing technical guidance validation of programme content and training paths; and curriculum and assessment of trainees;

b)   Ensuring that national skill standards and qualifications are well-established and trainees are rigorously assessed and teachers are qualified;

c)   Establishing competence-based qualifications and assessment schemes as a mechanism for quality control for all training providers focusing on outcomes, expressed in terms of competencies and their performance criteria;

d)   Ensuring that assessors have proven competence in occupational skills and evaluation techniques;

e)   Advise on licensing middle-level colleges (tertiary institutions) to deliver TIVET qualifications to satisfy the quality requirements of National Qualifications and Certification Bureau (NQCB);

f)   Establishing performance and expenditure guidelines and undertaking regular data collection to evaluate various training programmes; performance, outputs and expenditure against target plans and unit costs standards where appropriate and applicable;

g)   Provide advise to CHE on accrediting and appraising training providers and instructors, teaching staff and managers ;

h)   Assuring the controlling the quality of training premises, and other inputs, and;

i)   Conducting external examinations and assessment of training programmes as well as other related educational and learning outcomes.

Recommendation 8.20

A National Qualification and Certification Committee (NQCC) be established within CHE to facilitate the creation of a harmonized credit accumulation and transfer system in higher education.

8.5.7 Modulating University Collaborations with other Institutions

8.5.7.1   The Board observes that there are collaborations between many universities and other institutions. Universities use these institutions as campuses where their programmes are offered. Some of the students are directly admitted by the universities and pay fees directly to the university. The Board observes that many of the institutions used are public institutions but that a few are owned by private individuals. The mechanism used to link the institutions is a memorandum of understanding between the institutions directly with no involvement of CHE or the parent ministry. Unfortunately for a long time there were no legal provisions to safeguard the interests of students under such arrangements. However, in 2004, the Universities Coordination of Post-secondary School Institutions Rules was gazetted through Legal Notice 112.

8.5.7.2   Under these rules, any post-secondary institution can apply to CHE for validation of its programmes. After the inspection committee is satisfied that the programmes meet the course standards and that the institution has adequate human, physical, financial and other resources to provide quality training, CHE issues a certificate of validation. Institutions granted a validation certificate can apply for authority from CHE to collaborate with institutions offering diplomas or degrees. In addition, a student awarded a diploma in any validated programme can apply for admission to a degree programme. Many of the collaborations between universities and post-secondary school

institutions were entered into before the gazettement of these rules. The Board hopes that the proposed Higher Education Act will address this issue.

8.5.7.3 Another major concern with regard to these institutions is quality assurance. Currently, the quality assurance mechanism in place is one-sided as CHE inspects only the post-secondary institutions before allowing the linkages to be effected. The growing demand for university education is expected to increase the need for these kinds of arrangements.

8.5.7.4 Validation of programmes offered by foreign universities should be done before the courses are mounted locally. The Board recognizes the need to increase access to higher education through such linkages. It also recognizes the need to ensure that quality is maintained. The Board observes that foreign universities are establishing campuses or agencies in the country without going through the accreditation process or quality control.

Recommendation 8.21

a) *CHE should regulate the establishment and management of university campuses for both public and private universities through the accreditation of the facilities and the teaching staff.*

b) *CHE should develop guidelines and standards to be met by local and foreign institutions before they are registered to operate in Kenya. It should also regulate their operations within the framework set for other higher education institutions.*

8.5.8 The Role of Commission for Higher Education in Private Universities

8.5.8.1   CHE has overseen the establishment and running of private universities since it was established in 1986. To become operative, private universities are required to obtain a letter from CHE. Universities that had graduated at least one class of students by 1st August 1985 are required to register with CHE and then go through the process of accreditation. To establish a university, the following requirements, provided for in the Legal Notice No 56 (1989), must be met:

- make an application to CHE setting out the name, location and academic character of the university;

- the aims and objectives of the proposed university should be consistent with the needs of the university education in Kenya;

- the governance framework through which the academic and administrative affairs of the university are to be conducted;

- an outline of the academic programme(s) intended to be offered by the university;

- evidence of academic resources (finances, staff qualifications, library services and equipment) appropriate for and adequate for the proposed academic programme(s) to be provided by the university and a plan on maintenance of the facilities over the long term and a three-year timetable on the realization of the aims and objects of the university.

8.5.8.2   CHE verifies the documentation through meetings with the applicants, inspection and evaluation of the resources. The applicant is required to bear the costs of verification and evaluation of the resources. Once satisfied that the requirements set have been met, CHE issues a letter

of interim authority to operate thus allowing the applicant to set up a governing body for the university; commence or continue the development of physical facilities; commence or continue the assembly of academic resources; advertise the programme(s) of instruction expected to be conducted at the university; and admit students to the programme. Failure to make progress on these points can lead to the suspension and revocation of the interim authority.

8.5.8.3   To be accredited, universities that have been registered or hold an interim letter of authority are required to apply to CHE and provide a draft charter and relevant information on faculty, learning and physical facilities and finances. This is followed by an inspection and evaluation process to ascertain the veracity of the information given. A charter is issued as evidence of successful application for accreditation.

Recommendations 8.22

a)   *The government should continue to enhance incentives to private providers for the establishment higher education institutions in fields in which there is national demand.*

b)   *Persons or entities sponsoring the establishment of universities should be vetted to prevent sponsors of collapsed universities from setting up new ones under different names without giving guarantees of viability and sustainability.*

c)   *Private universities should be required to provide annual reports to CHE.*

8.5.9   Statistics on Higher Education

8.5.9.1   The Board notes that gathering and accessibility of accurate and up-to-date statistics on higher education is a major challenge. Statistics on access, admission, staff and students within and outside the country should be available and be published on regular basis. Additional

statistics should include Kenyans studying through virtual or e-learning through open and distance modes, all of which are essential for projections, planning and budgeting.

8.5.9.2   There is need for a centralized database for all middle-level colleges and universities. Currently, the CHE provides for a register of universities. CHE has embarked on the exercise of creating a directory of middle-level colleges and universities. Such information should include students and faculty statistics, academic programmes, library stock, staff vacancies and alumni activities. Major global developments in higher education could also be highlighted. This information should be continuously updated and posted on CHE's website.

Recommendation 8.23

a)   *CHE should establish a statistics unit on tertiary education.*

b)   *Universities which do not have statistics units and offices should be required to establish them immediately and to supply information to CHE on regular basis.*

8.6   UNIVERSITY GRANTS COMMITTEE (UGC)

8.6.1   The Board observed that in the past, a University Grants Committee existed as a forum for deliberations of financial needs of university education. This mechanism is no longer operational and has left a gap which has not been adequately bridged by the existing institutional arrangements for higher education. Hence, the universities have no joint forum for discussion of their proposed budgets for recurrent and planned programmes. This has led to a situation whereby individual universities present their financial needs to the Ministry and bargain for their budgetary allocations. This system does not allow for a comprehensive review of the needs of the sub-sector in a transparent and rational manner, and could lead to inequalities in allocation of

available resources. The current situation does not also allow the government to identify the strategic programmes it should support to meet its socio economic, scientific and technological needs.

Recommendation 8.24

    a)   *The establishment of University Grants Committee in the proposed legal framework for higher education.*

    b)   *The establishment of transparent and competitive criteria for allocation of the available resources to higher education institutions.*

8.7   THE HIGHER EDUCATION LOANS BOARD (HELB)

8.7.1 Establishment and Functions

8.7.1.1   HELB was established by the Higher Education Loans Board Act of 1995 to manage a revolving fund (the Higher Education Loans Fund), which is to be used for the purpose of granting loans to assist Kenyan students to obtain higher education. The other key functions of HELB are to solicit for funds and other assistance, establish criteria and conditions governing the granting of loans, and to enter into contracts with financial institutions for the purpose of disbursing and recovering loans.

8.7.1.2   HELB's mandate is to advance loans to all students in public, chartered private and tertiary institutions. However, the bulk of its funding has been used to support students in public universities with only a small proportion going to private universities and national polytechnics. This is because the funding is inadequate. The Board received submissions that HELB does not support students studying in private universities operating under Interim Letters of Authority and self-sponsored students in public universities. Students in these

institutions argued that since the degrees they are pursuing are recognized, they should also benefit from HELB loans.

8.7.2 Membership

8.7.2.1   The membership of HELB board consists of a Chairman appointed by the President; the Secretary to the Commission for Higher Education; Permanent Secretaries in the ministries of education and finance; the Chairman of the Vice-Chancellors Committee for public universities, one representative of Vice-Chancellors or Principals of the private universities, the Executive Director of the Federation of Kenya Employers, and the Chairman of the Kenya Bankers Association - all appointed by the minister; two other persons appointed by the minister; and not more than three members co-opted by the Board from time to time.

8.7.2.2   The Board noted that the representatives of the Vice-Chancellors Committee for public universities and the representative of Vice-Chancellors or Principals are appointed for a period of one year, while other members to the board are on a three-year term. Future nominations of members of the board of HELB should be carried out through the proposed Ministry of Education Nominations Committee.

Recommendation 8.25

a)   *The board should also have representatives from insurance and micro-finance institutions.*

b)   *All appointments to the board of HELB should be for term of three years'.*

8.7.3 Appointment of the Chief Executive and other Senior Officers

8.7.3.1   The Board notes that the Chief Executive is not competitively recruited.

Recommendation 8.26

The Chief Executive of HELB should be recruited competitively in line with other appointments of chief executives of higher education institutions.

8.7.4 Achievements

8.7.4.1   HELB has performed well so far and has given loans mainly to needy students in public universities. It has articulated policies which have guided effective management of funds and led to increased loan recoveries. However, the Board received submissions alleging that HELB favours some students when granting loans. HELB has indicated that it has an open and transparent process for granting student loans.

8.7.4.2   Besides serving students in public universities, HELB has also assisted students in private universities. Currently, HELB is in partnership with KRA to enhance identification of loanees and which has led to increased recoveries. Table 8.2 below shows the recoveries in the ten years, the highest recoveries since its creation being in 2004/2005 financial year.

Table 8.3: HELB Disbursements and Recoveries for the Last Ten Years

Financial year	Disbursements Kshs.	Recoveries Kshs
95/96	1,323,622,436.00	59,200,820.15
96/97	954,790,022.30	83,677,691.35
97/98	832,771,142.85	206,698,386.20
98/99	857,328,101.90	281,394,613.00
99/2000	947,292,300.00	397,398,175.56
2000/01	941,020,950.00	513,862,846.96
2001/02	948,169,300.00	548,808,139.15
2002/03	1,198,638,900.00	584,765,783.42
2003/04	1,316,376,500.00	674,322,902.86
2004/05	1,471,051,800.00	727,919,315.15
TOTAL	**16,251,244,456.05**	**4,286,841,547.50**

Source: HELB Accounts as of 14th June 2005

8.7.5 Expanded Role of HELB

8.7.5.1 The Board received presentations recommending that HELB be converted into a banking institution. The Board is of the view that fiduciary responsibility and regulatory framework required for banking institutions would limit the operations of HELB. The Board is further convinced that HELB can use its current provisions to enhance and advance its operations and mandate.

8.7.5.2 The Board was informed that many HELB beneficiaries are not in formal employment while others are working outside the country. This situation constrains the ability of HELB to recover all loans as expected.

Recommendation 8.27

    a)   *HELB should explore ways and means of recovering more of student loans through various mechanisms, in cooperation with local and international agencies.*

    b)   *HELB should advance loans to undergraduate SSP and postgraduate students in all authorized universities both public and private.*

Recommendation 8.28

HELB should work with KRA to ensure that all beneficiaries of HELB loans should acquire a national Personal Identification Numbers (PIN) for easy tracing and recovery of the loans.

8.8   GOVERNANCE AND MANAGEMENT OF PUBLIC UNIVERSITIES

8.8.1 Functions and Objectives of Universities

8.8.1.1   The Board reviewed the functions and objectives of university education in the Acts establishing public universities and observed that these need to be revised to take into consideration the changing landscape for the development of universities. The Board has updated and reformulated what should be the functions of university education in the 21st century. These are.

    i)   To educate and train the high level human capital needed for national development and global competitiveness;

    ii)   To be a beacon, role model and leader in championing truth, moral values and ethics for the advancement and empowerment of human kind and safeguarding freedoms, justice, human rights, dignity and peace;

iii) To be the national observatory of the developments in knowledge, research, science, technology and innovations, and to provide national leadership in research and development;

iv) Through teaching, research, publications and debates to advance, preserve and disseminate knowledge and inculcate national cultural values, goals and attributes that lead to the appreciation of human diversity;

v) To generate through both basic and applied research new knowledge, skills and innovations geared towards providing solutions to the challenges confronting the society;

vi) In partnership and collaboration with the government, national institutions, private sector and the civil society should harness the benefits emerging from global knowledge, scientific and technological advances through the building and strengthening of national capacities for competitiveness, innovations and application of knowledge in national development;

vii) To widen opportunities for access and equity for all social groups in the pursuant of higher education;

viii) To recognize, nurture and reward merit and talents in the society;

ix) To provide openings and an enabling environment for lifelong learning, upgrading skills and knowledge; and

x) To play an entrepreneurial role, in the society, through promoting innovations and application of knowledge in sustainable social, economic and industrial development and through inculcating entrepreneurial skills and outlook in the graduates to enable them to create opportunities for themselves and others.

8.8.2 Organs of Governance

8.8.2.1 Proper management practices enhance quality and relevance, leading to cost-effective utilization of recourses and encouraging innovations amongst staff and students to work towards excellence. The Board appreciates that universities' governance and management organs, Chancellors and Vice-Chancellors and other managers have endeavoured to manage higher education institutions, sometimes, under very difficult circumstances. The Board further notes that reforms such as competitive recruitment of Chief Executives and the commitment for change as underscored in the institutions' strategic plans will lead to better management of higher education sector. The current environment of limited resources, wider democratic space and emphasis on good governance demand that there be a paradigm shift towards management styles which are transparent, accountable, result-orientated, inclusive, innovative and cost-effective.

8.8.2.2 The Board received information that pointed towards practices deemed to be impacting adversely on the performance of university institutions. These practices include some allegations of corruption; poor supervision of staff to ensure that they carry out their functions effectively; tribalism, nepotism and favoritism in recruitment; poor utilization of finances and facilities; unfair treatment of some cadres of staff; poor communication channels and concentration of power at senior levels.

8.8.3 The Chancellorship

a) Appointment

8.8.3.1 The University Acts provide that the President shall be the Chancellor of the respective public university but may appoint some other person to be Chancellor. Only JKUAT and Maseno University Acts provide for consultation with the Commission for Higher Education before the

Chancellor is appointed. Further, while JKUAT gives six (6) years as the term of a Chancellor, Maseno University Act gives 5 years while Nairobi, Moi, Egerton and Kenyatta University Acts only provide that the holder shall cease to hold office when there is change in the office of the President.

Recommendation 8.29

a) *The Chancellor should be appointed by the President from a list of three names submitted to him by the Council. To identify possible candidates, a search committee appointed by the Council comprising the senate members and other university stakeholders and taking into consideration gender balance will consult widely with all stakeholders. Such a committee should take into consideration the traditions, identity, history and the needs of the university in making its recommendations.*

b) *The Chancellor should be the Senior Elder of the university and shall be the custodian of the history, values and dignity of the university.*

b)   Functions

8.8.3.2 As indicated above, the functions of the Chancellor have a fundamental bearing on the management of university education. For example, their mandate to direct inspection and visitations could result in timely reforms for these institutions. The Board is of the view that the Chancellors can offer much more for the development of the universities.

8.8.4 The Chancellor's Honours List

8.8.4.1 The Board has recommended within this report the granting of various awards and scholarships for outstanding students, faculty members,

and other staff, alumni as well as other benefactors of the university. These awards would be given through the Chancellor's Honours List by the Chancellor during the Chancellors forum.

Recommendation 8.30

    a)   The Chancellor should confer degrees and grant diplomas, certificates and other awards.

    b)   The Chancellor should be the major fundraiser for the university and take charge of the university's endowment fund; and

    c)   The Chancellor shall preside over the proposed Chancellors Court/Forum.

    d)   The Chancellor shall be the custodian of the proposed Chancellor's Honors List (CHL)

    e)   The Chancellor should direct inspection and visitation

    f)   Public universities should consider establishing a mechanism for honouring outstanding students, staff, alumni and benefactors through the conferment of awards during the assembly of Chancellor's Court/Forum.

8.8.5 Chancellor's Court/Forum

8.8.5.1   There is no provision in the current acts for the interaction of the Chancellor with the broad spectrum of stakeholders except from during graduation and visitation. The Board notes that Chancellors in other universities have stature for interaction with university stakeholders other than during graduation. For example, the provision of Chancellor's courts in other universities such as in South Africa enables the Chancellor to engage with the university community on a regular and enriching manner.

8.8.5.2   With the new developments where the Head of State has appointed individuals as Chancellors, there is need for a forum of engagement

between the Chancellor and the university stakeholders. The Board is persuaded that there is need to link the chancellor with the university stakeholders through a Chancellor's court/forum. The membership of such a court could be drawn from representatives of organizations outside the university with interest in the work of the university, parents and sponsors, the local community within which the university is located, the current and former members of university staff, senate, and emeritus professors of the university, alumni and student's representatives.

8.8.5.3   The court will provide space for the stakeholders to discuss the performance of the university. A Chancellor's court will be a formal forum that will be hosted by the Chancellor once a year to review progress, achievements and highlight any constraints that the institution may have had in carrying out its mandate. During the forum, the Chancellor will invite views and solicit stakeholders' support on the way forward. Participants in the forum will be drawn from university community, the council, alumni, emeritus professors, benefactors, the private sector and any other friends of the university. The Chancellor's Court thus opens extra democratic space by allowing stakeholders to come, assemble and discuss issues pertinent to their university.

Recommendations 8.31

A Chancellor's Court/Forum to be chaired by the Chancellor should be established in each public university.

Recommendation 8.32

Each university should establish a Chancellor's Honors List to honour outstanding persons in its university community.

8.8.6 The University Council

a)   Functions

8.8.6.1   The current Council acts as a trustee in the public interest while the Vice-Chancellor and professional academics in Senate have responsibility over academic matters, curriculum design and delivery, assessment, research and other related academic responsibilities. The functions of councils in public universities are spelt out in their respective statutes. They include governance, management, and administration of the universities including the administration of property and funds, receiving gifts and donations, providing for the welfare of staff and students and collaborative linkages with other institutions.

b)   Membership of the Council

8.8.6.2   Each University Act provides for the composition of the Council whose average size in the universities is 30 members while the average representation by government officials comprises thirty-three per cent. (see Table 8.4). The Board was informed that decisions on financial matters are subject to approval by the ministries of Education and Finance as the major stakeholders. The opinion of the Board is that this membership is too large and should range from a minimum of 11 to a maximum of 15 members. The Board also observes that in some private universities, the roles of parents, sponsors of students and benefactors enrich the vitality of university life. Their contribution to university life have been appreciated in private universities thus being represented in their councils The Board postulates that parental representation is useful in handling staff and student discipline matters.

Table 8.4: Composition of Council

Represented Group	UoN	Kenyatta	Moi	Egerton	JKUAT	Maseno	Average	% of Total
Chancellor/Presidential Appointments	3	3	3	3	5	3	**3.3**	**11**
University Administration	9	4	5	5	4	5	**4.7**	**15**
Government Representatives	10	10	10	13	7	10	**10.0**	**33**
Senate	5	4	5	5	5	5	**4.8**	**16**
Academic Staff Union	1	1	1	1	1	1	**1.0**	**3**
Non-Academic Staff		1	1				**1.0**	**3**
Students Union	2	2	2	2	2	2	**2.0**	**7**
Alumni/Convocation	2	2	2	2	2	2	**2.0**	**7**
Co-opted Members	2	2	2	2	2	2	**2.0**	**7**
Total	**35**	**29**	**31**	**33**	**28**	**30**	**30.2**	

Source: Board Generated Data, 2005

Recommendation 8.33

a)   *The Board recommends that the direct government representation in the Council should be reduced and the total membership pegged at a maximum total of 15 members, provided that no one gender shall have more than two thirds representation.*

b)   *University councils should develop mechanisms for parents, alumni, benefactors, and community leaders for representation.*

c)   *In appointing council members, best practice principles in representation and composition should be adhered to. The proposed Nominations Committee should thus implement good governance practices.*

d)   *Members of council should act in the best interest of the institution and not representatives of their constituencies.*

e) *Councils should strengthen and ensure adequate representation of students and staff in the following and any other committees that deal with critical issues affecting their welfare.*

> *i.* *The students' welfare committee chaired by a member of the council.*
>
> *ii.* *Human resources committee of the council chaired by a member of the council.*

Table 8.5: Proposed Indicative Composition of Councils of Public Universities

Stakeholder	Representation
1. Chair	1
2. Government representation	2
3. Vice-Chancellor	1
4. Senate	2
5. Distinguished professor	1
6. Private Sector	3
7. Parents/sponsors of students	1
8. Special interest/professional associations	1
9. Community	1
10. Benefactors	1
11. Alumni	1
Total	**15**

Source: Board Generated Data, 2005

c) Term of Office of Council Members

8.8.6.3 The term of office of members of councils in most public universities is three years with eligibility for re-appointment. However, experience has shown that it takes at least two years for a new council member to get a fair understanding of the affairs of the institution thus leaving only one year or two years for the member to use the accumulated knowledge. The Board is of the view that the term of office for council members should be extended. The Board further notes that the Acts do not provide for staggered replacement of retiring council members which may threaten smooth continuity during transitional period. The Acts do not also provide alternative replacement mechanism for a

council member who does not attend stipulated minimum council meetings.

Recommendation 8.34

     a)   The term of office of a council member should be five years renewable once.

     b)   The appointment of council members should be staggered to allow for continuity and maintenance of institutional memory.

     c)   The university Acts should include a provision for office of a council member becoming vacant by virtue of non-attendance of three consecutive council meetings without valid reason.

     d)   Competencies of Members of the Council

8.8.6.4   The range of skills and knowledge that are required of council members other than ex-officio members will vary from institution to institution. Such latitude should be allowed in the institutional statutes and not in the university legislation. The Board noted that the university Acts do not specify any qualifications or competences for individuals to be appointed to university councils. The Board is of the view that certain skills and competencies such as legal, financial should be represented in council. Finally, the Acts do not provide for gender equity.

Recommendation 8.35

     a)   Members of council should have prerequisite qualifications to enable them to serve on the council.

     b)   There should be a balance of skills, competencies and gender in council membership.

e) Procedure for Conduct of Business of Councils

8.8.6.5   For councils to operate effectively, certain structural changes must be made to ensure that there is an effective system of delegated roles and responsibilities, as well as functioning executive and audit committees backed up with appropriate administrative support. There is, therefore, need to develop a new reporting framework for councils covering meetings of the council, committees of the council, and institutional reporting. The Board heard that council meetings are a big financial cost to the universities. The Acts provide that the procedures conduct and regulation of the affairs of council shall be vested in the council. Hence the need for statutory provision for the number of council meetings to be held within a year.

Recommendation 8.36

Full meetings of the council should be held at least 3 times a year.

f) The Role of University Councils in Students' Admission

8.8.6.6   The Board noted that university Acts provide for the senate to propose regulations to council for admission and for certification of university awards. The Acts appear to be silent on the senates proposing the maximum numbers of students to be admitted based on the available resources and on the framework and guidelines provided by CHE. The Board believes that university councils should be enabled, within the act, to make regulations concerning admissions and criteria to ensure that the quality of university programmes is not compromised.

8.8.6.7   The Board observed that there was a perception that the Ministry of Education was the employer of public university staff. Indeed, the Board noted that the relevant acts and statutes specify that the council's has the responsibility of providing for the welfare of staff and students. The Board interpreted this to mean that the council

responsibility is to mobilize the required resources for emoluments. In light of the autonomy of public university recommended in this report, the Board is of the view that each university council should be clearly specified as the employer of all staff.

Recommendation 8.37

a) *Senate of each university should propose regulations to be made by the Council regarding the maximum number of students to be admitted within the framework and guidelines of CHE.*

b) *Universities should admit students on the basis of academic performance and on the basis of any other criteria that it may determine without consideration of ethnic, origin, sect or creed unless such distinction is meant to ensure equity and access for disadvantaged groups, in which case criteria and benchmarks for differential treatment must be clearly laid out.*

c) *The Council of each public university shall be the employer of all staff of the institution.*

8.8.7 Vice-Chancellorship

a) Appointment of the Vice-Chancellor

8.8.7.1 While five University Acts (Nairobi, Moi, Kenyatta, Egerton and Maseno) provide that the Vice-Chancellor shall be appointed by the Chancellor after consultation with the Council, JKUAT Act provides that the Vice-Chancellor shall be appointed by the President after consultation with the Council. Although consultation with the Council is implied in the other cases, the process of searching for and eventually recommending successful candidates is not specified. The Board appreciates the new development where Vice-Chancellors are now being recruited on competitive basis. However, the Board has noted that this has not been formalized through the act and statutes and this may lead to variation in the process from year to year.

8.8.7.2   The Vice-Chancellors' position is a critical component for effective and efficient management of the university. As such, it is important that persons called upon to serve in this important sub-sector have the requisite leadership skills, qualifications, competencies and experience to provide dynamic and visionary leadership during this time of change and reform. In addition, they should have proven exemplary scholarships and possess excellent interpersonal skills in order to command respect from their staff, students, peers and other stakeholders. They should, above all, uphold the fundamental tenets of leadership which is selfless service. The Board noted that after the competitive appointment of Vice-Chancellors, and on completion of their terms, they return to teaching positions in the various universities. The Board is of the view that they should be accorded soft landing packages that befit their status, dignity, and national contribution.

Recommendations 8.38

a)   *The appointment of Vice-Chancellors of all public universities should continue to be done in a competitive and transparent manner by the Council, in consultation with the Chancellor. In processing appointments care should be taken to bring in specific competences required of a Vice-Chancellor of a particular university, with emphasis being placed on financial and human resource management. Such basic requirements should be enshrined in the proposed Higher Education Act.*

b)   *Prospective candidate for the position of Vice-Chancellor should be required to make public presentations outlining their vision for the university as a pre-requisite to appointment.*

c) *The position of Vice-Chancellor Emeritus be provided for in the Higher Education Act to enable each public university council to create a position for Vice-Chancellor Emeritus for the Vice-Chancellors who complete their terms of office satisfactory. This should not entail additional financial commitment.*

b) **Functions of the Vice-Chancellor**

8.8.7.3 The Board notes that the Universities of Nairobi and Kenyatta Acts provide for the Vice-Chancellor to be the academic and administrative head of the university. Moi, Egerton, JKUAT, Maseno Acts provide that the Vice-Chancellor shall be:

a) Responsible for the direction, organization and administration of programmes of the university;

b) Chairman of the senate; and

c) Responsible to the Council for the general conduct and discipline of the students.

8.8.7.4 The Board noted that the Acts that established public universities do not explicitly categorizes the Vice-Chancellor as being either academics or administrative staff. Once appointed, the Vice-Chancellor becomes the academic and administrative head of the university. The Board noted that this practice is inconsistent with statutes and should be rectified to enable the Vice-Chancellor to be an academic and administrative member of staff. The Board believes that the Vice-Chancellor should be the embodiment and champion of the spirit and values of the university.

8.8.7.5 Five University Acts (Nairobi, Moi, Kenyatta, Egerton and JKUAT) provide that the Vice-Chancellor shall hold office for such period as may be provided for by the statutes or regulations. Maseno University Act provides that the Vice-Chancellor holds office for five years. All

Acts provide that the Vice-Chancellor is eligible for re-appointment with Maseno having one additional term and Moi University being explicit on a renewal of two years only.

Recommendations 8.39

a) *Each university should develop its own statutes that specify the tenure of office for the Vice-Chancellor.*

b) *On completion of the first term in office, the Council should evaluate the performance of the Vice-Chancellor and if the quality of performance of the incumbent is satisfactory, the position should not be advertised, but be renewed for a second term. This would enable the university to benefit more from visionary leaders.*

Recommendation 8.40

a) *The Vice-Chancellor should provide the public face of the university as a corporate body in terms of dynamic and visionary leadership, innovativeness and integrity.*

b) *The Vice-Chancellor should spearhead good governance, management and mobilization resources to facilitate delivery of quality services.*

Appointment of the Deputy Vice- Chancellors and other Staff

8.8.7.6   In the past Deputy Vice-Chancellors (DVCs) were appointed on advice of the Council. The Board notes that currently DVCs are being recruited on competitive basis and this should ensure appointment of the best qualified and experienced officers.

8.8.7.7   The Board notes that some universities have created offices that are not justified by requisite workload and functions and thus making the top management too bloated. For example, the number of DVCs in some universities does not correlate with the function of the

universities and the number of students and staff. While the Board recognizes that such important areas as student affairs, administration and finance, research and development, resource mobilization, and human resource are key areas in universities, it is of the opinion that harmonization will lead to a leaner, effective and efficient administrative systems.

8.8.7.8   Furthermore, different universities have different designations and numbers for the Deputy Vice-Chancellors. The Deputy Vice-Chancellors assist the Vice-Chancellor in the execution of his/her duties as the academic and administrative head of a university.

8.8.7.9   The Board notes that although competitive recruitment is a positive development, there is need to ensure that the composition of Chancellors, Council members, the Chief Executives and other cadre of staff reflects, as much as possible, the wide cultural and ethnic diversity of this nation, as well as gender balance. In addition, deliberate efforts should be made to recruit qualified persons who have disabilities. This will ensure that public universities remain national in character and in their governance and management structures. In no way should the location of a university be taken to construe that it belongs to that particular community. Universities should, therefore, take the lead in fostering equal opportunities for all irrespective of ethnic background, gender, creed or disability.

Recommendations 8.41

a)   *The appointment of DVCs should be based on the need to have a lean, effective and efficient administrative system.*

b)   *The number of DVCs should be limited to a minimum and aligned to core functions of universities.*

c) *The Deputy Vice-Chancellor should be competitively recruited by the Council in consultation with the Chancellor.*

d) *The appointment of all other officers and staff of public universities should all be through a competitive and transparent process by the Council with the advice of the Vice-Chancellor.*

e) *Public universities should avoid terminologies which could generate ambiguities and conflicts in carrying out administrative and academic responsibilities.*

8.8.8 University Committees

8.8.8.1 The Acts provide for establishment of appropriate committees of Council and Senate, for purposes of coordinating university activities and to allow broad participation in decision-making. Key committees include, finance and general purposes committee, staff appointment and promotion committee, and Deans' committee of senate. However, the Board was informed that the size and the number of these committees has grown in some universities to become serious financial burden and at the same time compromising good governance of the universities;

8.8.8.2 Public universities have various boards and elaborate system of committees at all levels of the management. There are several standing committees of Council and Senate, besides University Management Board (UMB), which are supplemented from time to time by ad hoc committees appointed to deal with specific assignments. The main function of a committee is to coordinate activities or to work on assignments that require teamwork. While the committee system has the advantage of increasing the amount of information available for decision-making, reducing the individual manager's workload, and increasing the degree of commitment and joint ownership to the

decisions made, becomes misused when it is used as a means of avoiding responsibility or undermining the authority of some officers.

8.8.8.3   The committee system as currently used by the universities in their day-to-day activities has a major cost implication in terms of staff time; finances expended on preparations, printing, mailing, and delayed decisions. The Board has learnt that the committee system has increased the levels of bureaucracy in the management system and has led to overlapping mandates. In short, this does not promote good corporate governance and management. However, if properly rationalized, it is the best in terms of collective responsibility. The committees used by some public universities are extremely large and are unable to allow for efficient and effective participation of all members.

Table 8.6 (a): Council Committees

1. General Purposes Committee
2. Tenders Committee
3. Finance Committee
4. Building and Development Committee
5. Terms of Service Committee
6. Staff Appointments and Promotions Committee
7. The Senior Board of Discipline
8. The Junior Board of Discipline
9. The Staff Appeals Board
10. Honorary Degrees Committee
11. Housing Committee
12. Sealing Committee

Source: Public Universities Calendars

Table 8.6 (b): Senate Committees

1. Deans Committee
2. Planning and Development Committee
3. Students' Welfare Committee
4. Students Disciplinary Committee
5. Library Committee
6. Bookshop Committee
7. Catering and Accommodation services Board
8. Board of Postgraduate Studies
9. Board of undergraduate studies
10. Institutional Linkages Board
11. Promotion and Appraisal committee for Academic and Non-Academic staff of the Rank of Senior Administrative Assistants (and equivalent grades) and above
12. Promotion and appeal and appraisal Committee for Non-Teaching staff below the Rank of Senior Administrative Assistant
13. Bursary Committee
14. Staff Welfare Committee
15. Ceremonial Committee
16. Printing and Publication Committee
17. The Senate Committee

Source: Public Universities Calendars

Recommendation 8.42

Each university should rationalize the functions and membership of each of its Council and senate committees with a view to having timely decisions reduce costs and effective management.

8.8.9 Layers of Bureaucracy and Duplication

8.8.9.1   There was also a concern about the bloated levels of authority in some public universities. For example, the Board is aware that the creation of campus/colleges by the University of Nairobi in 1985 increased the levels of management in the university. Currently there are Management and Academic Boards for each college. Communication and decision-making processes move from the department/unit, to faculty through the college before reaching the central administration.

8.8.9.2   A single-faculty campus should normally be under the management of a dean of the faculty. Where a university has faculties located at a distance from the main campus there is need for a principal to coordinate the management of such faculties and departments. Faculties within the main campus or at close proximity should be managed by deans and reporting to central university administration.

Recommendation 8.43

　　　　a)　　*Each university should identify its critical administrative and academic units and decentralize responsibility and authority to the agreed levels.*

　　　　b)　　*Academic departments should serve that function if chairpersons are appointed competitively.*

　　　　c)　　*Students should be adequately represented in the established committees and bodies at decentralized levels.*

8.8.9.3   The Board also notes that a lot of powers are vested in the higher levels of university administration, with minimal powers in the operational levels such as faculties and departments. For instance, while deans and heads of departments are at the operational level, they have no power to hire, discipline or fire any staff, and their decisions have to be approved by two or three levels of officers above

them, which delay action on the ground and make the deans and heads of departments appear to be ineffective managers to students and staff under their charge. The Board is of the view that each university should identify its most critical operational units (administrative and academic), and decentralize authority and responsibility appropriately. Devolved functions of each unit should be clearly defined. The staff and students should be adequately represented at the appropriate decision-making organs and committees at these levels

Recommendations 8.44

a) *The administrative and management structures of public universities should be analyzed and streamlined to create efficient, effective, responsive and lean structures to avoid wastage of resources, duplicated responsibilities and overlapping mandates. This should be done by professionally and independent management consultants, and be carried out without delays. Funds should be allocated to this crucial exercise for a period of three years (2006 - 2009).*

b) *Authority to make decisions should be devolved to operational units (faculties, institutes, schools, and departments) and these units strengthened to enable them to discharge their functions effectively.*

c) *Recruitment of deans, directors of institutes, heads of departments, administrators and managers for the operational units be done competitively and remuneration pegged on competence and performance.*

8.8.10 The Senate

8.8.8.1   The Act provides for the establishment of Senate and spells out its membership as well as functions. The senates of public universities have increased substantially due to the increased number of

departments. Some senates have over one hundred senators. In such large bodies ability to make decisions is compromised thus causing delays in approval of academic programmes by senate.

8.8.8.2   The Board appreciates the pivotal role that senates have and continue to play in the developments of their respective institutions. The senates have over the years put in place among other procedures for admissions, curriculum for various programmes and appropriate quality control systems. They are also currently reviewing and introducing new demand-driven programmes, relevant to the socio-economic development. Senates' support for self-sponsored programmes has ensured that these programmes have continued to thrive and increase the resource base of universities. In view of the emerging and restructured governance where decision-making is being decentralized to the administrative units e.g. the department, the membership and composition of Senate and its committees require to be revised. The Board avers that an effective and productive Senate should not have more than 50 members.

8.8.8.3   The functions of the senates as provided for by the Act include matters related to:
- Content and academic standards of study;
- Eligibility for admission;
- Standards of proficiency in examinations;
- Advice to council on matters related to the university.

8.8.8.4   Some stakeholders informed the Board that there are major issues that need to be addressed which include:
- The large membership of senate, leading to delays in decision - making and increased operational cost;

- Failure to modernize operations through utilization of Information Technology;

- Delays in approval and introduction of new programmes and abolition of unmarketable ones;

- Failure to enforce quality assurance in teaching and examination.

8.8.8.5 The Board has considered submissions received and is of the view that the size, composition and function of university senates should be reviewed in order to make them more effective organs of governance, quality assurance, research and innovations. However, the Board affirms the supremacy of university senates as organs of ensuring academic freedom, guarantors of quality of academic and research programmes and universities' role as an observatory in the knowledge society.

Recommendation 8.45

The roles, functions, and membership of senates and senate committees should be reviewed and rationalized in order to make them more efficient and effective.

8.8.11 Award and Withdrawal of Certificates

8.8.11.1 The Board received submissions that there are instances of collusion between lecturers and students to acquire good grades. It is also alleged that there were cases where little or no teaching took place and all students passed and the results were approved by Senate and degrees granted. While no concrete proof was given to support these allegations, there is need to empower Councils to withdraw degrees, diplomas or certificates when it is established that they were acquired fraudulently. Some of the universities have provisions for this in the

existing Acts and statutes. Where this is provided, the Council is allowed to withdraw an academic certificate if the Council is satisfied that the qualification was improperly granted.

Recommendation 8.46

University statutes should provide for award as well as withdrawal of degrees or any other certificates that are issued fraudulently

8.8.12 Protection of Name

8.8.12.1   The Universities of Nairobi and Kenyatta Acts make provisions to protect the use of their university names. The Board has observed that the penalties for misusing the names vary from Kshs. 1,000 to Kshs. 30,000. Hence the urgent need to provide adequate legal provisions and stiff penalties to protect university names in the proposed Higher Education Act.

8.8.13 Intellectual Property

8.8.13.1   None of the university Acts provides for the ownership of the universities' intellectual property. The Board has heard that there have been cases where the intellectual properties generated by universities have been lost due to the lack of policies on ownership of such properties. The Universities of Nairobi, Moi and Jomo Kenyatta University of Agriculture and Technology are among those in the process of developing intellectual property policies. Being in the knowledge economy and with universities being at the pinnacle of knowledge generation, University Acts should provide for the protection of their names, logos, and intellectual property in their acts or charters.

Recommendations 8.47

All universities should make provisions for the protection of their names, identity, logos and intellectual property.

8.9 INTERACTION AND COLLABORATION OF HIGHER EDUCATION INSTITUTIONS

8.9.1 Main Players in Higher Education

8.9.1.1   The Board noted that the following are the main players in the national higher education system.

- The Ministry of Education;
- The Commission for Higher Education;
- The Higher Education Loans Board;
- University Grants Committee;
- University Institutions;
- Middle-level Colleges and Institutes;
- National Research Institutions;
- Professional Bodies.

8.9.1.2   The Board observed that there are colleges and institutes under other ministries which provide higher education and training. These include those under the Ministries of Health, Agriculture, Livestock and Fisheries, Labour, Transport and Communications, Water Development, Natural Resources, Planning and Development and Office of the President among others. The new policy, articulated in the *Sessional Paper No.1 of 2005*, requires that the quality of education and training they provide be assessed and assured by CHE. There are also related professional bodies (such as The Law Society of Kenya, Medical Practitioners and Dentist Board, Engineering Associations) which have close linkages with universities.

Recommendation 8.48

　　a)　　*An inventory of institutions offering higher education and training outside the Ministry of Education need to be conducted with a view of developing them in a coordinated and systematically manner.*

　　b)　　*Mechanisms for bringing such institutions within the ambit of CHE need to be put in place.*

8.9.1.3　The Board notes the existence of a diversity of professional bodies which have rules and regulations on the admission of graduates of institutions of higher learning into the practice of respective professions. Since these are the clientele of the institutions of higher learning, which provide them with the graduates, there is need for some mechanism to link the institutions of higher learning with these bodies to deliberate on issues of mutual interest. The Board appreciates that the Ministry of Education through the Sessional Paper No. 1 of 2005 has proposed the establishment of National Education and Advisory Council to periodically advise the minister on the performance of the sector.

Recommendation 8.49

All higher education institutions should be adequately represented in the proposed National Education and Training Advisory Council (NETACO), which should review the performance of the entire higher education sector once every four years, and report to the Minister for Education.

8.9.1.4　The Board also observed that these institutions do not have a forum for sharing information and experiences on higher education and research. It is important that there is close consultation and continuous dialogue between the Ministry of Education and these bodies and other ministries. It is hoped that the bi-annual conference proposed below

will enhance dialogue and partnership among all stakeholders in higher education.

8.9.2 Linkages with Research Institutions

8.9.2.1 The Board has observed that research organizations provide some funding and facilities for postgraduate students in public universities. However, there is no formal arrangement for selection of the candidates. As a result, there is very little information to Kenyans about this facility and there is no guarantee that the best students will benefit. The National Council for Science and Technology established under the Science and Technology Act (1977), Chapter 250 of the Laws of Kenya regulates research carried out in the country and grants research authorization. Given that institutions of higher learning have research as a core function, articulation between the Council and the institutions is necessary

Recommendation 8.50

The proposed Higher Education Act should provide for a comprehensive legal framework for linking institutions of higher learning, research organizations and the National Council for Science and Technology.

Recommendation 8.51

Opportunities for postgraduate studies in research organizations should be well-advertised to allow competition and selection of the most qualified.

8.9.2.2 The Board recognizes the need for a participatory, proactive and holistic approach to planning and development of education sector. Universities are in a strategic position to take the lead and responsibility in informing this process. The Ministry of Education should facilitate the setting up of an organ where the universities as

well as other stakeholders could give their views on the status and developments in higher education.

Recommendations 8.52

    a)   *A bi-annual Congress on Higher Education in Kenya (CHEK) should be established to deliberate on critical issues in the development of higher education. The forum should be sponsored by the Ministry of Education and hosted by institutions of higher learning on a rotational basis. This would enhance proactive and inclusive development of higher education.*

    b)   *An Association of Vice-Chancellors should be established to provide a forum for interaction and discussions on the development of higher education.*

    c)   *The universities should establish forums for linking the professional bodies with which they share common interests and concerns.*

8.10 CONCLUSION

8.10.1   As pointed out above, the current governance and management structures of public universities are too bureaucratic and cumbersome. These should be rationalized to enhance good governance, democratic space and practices, and representation of all stakeholders. More specifically, governance and management structures should be flexible and efficient to ensure that the institutions perform their functions efficiently and effectively. Appropriate structures should facilitate and enhance innovation, quality assurance, resource utilization, student/staff welfare and discipline, relevance and development of critical skills and prompt responsiveness to emerging challenges and opportunities.

8.10.2   To achieve these goals, the appointment of key officers of the university should be designed to deliberately bring on board persons

with leadership capacity to implement the mandates of the respective universities. It is also important to synergize the roles and functions of different offices to avoid duplication of duty and overlapping responsibilities that could cause unnecessary conflicts.

CHAPTER NINE

IMPLEMENTATION OF REFORMS

9.1   BUILDING CAPACITIES FOR REFORM

9.1.1   In the process of carrying out its work, the Board was constantly reminded that reports and recommendations of past commissions, committees and task forces, which had done similar work are gathering dust in government offices. The Board was constantly requested to give assurance that this was not another exercise in public relations, but would result in tangible changes in higher education.

9.1.2   The Board assured the public that the government is committed to bringing about reforms in higher education, and pointed out at recent changes such as FPE which the government had promised and which are were being implemented. The Board also pointed out that there is a momentum of change in higher education, which is unstoppable. The appointment of Chancellors of public universities and the competitive recruitment of Vice-Chancellors of public universities is evidence of seriousness with which the government and higher education stakeholders view the necessity for reforms in the sub-sector. The Public Universities Inspection Board appointed in 2005 is therefore another indicator of government's readiness to initiate reforms in higher education. The government's intentions in this respect are articulated in the *Sessional Paper Number 1 of 2005* on *A Policy Framework for Education, Training and Research.*

9.1.3   In its interactions with various stakeholders, the Board was informed of a number of factors, which in the past have impeded the implementation of recommendations of various commissions and boards. First, there was lack of clarity as to who was responsible for

championing the intended reforms. This was not articulated at policy level or in the institutions that were targeted for reforms. Second, there was lack of capacity and follow-up mechanism for implementation in most of the institutions, thereby impeding realization of recommended changes. Third, the Board learnt that in some cases, vested interests in institutions targeted for change frustrated the reform process. There were also instances where resources for the implementation were lacking or not adequate. Finally, the Board was informed of the importance of garnering political will to take unpopular, but necessary decisions. The political dimensions at both national and institutional levels are the determinants of the pace and intensity of the reforms. The Board is convinced that there is a window of opportunity at this juncture to realize the envisaged transformation of higher education.

9.1.4   The Board proposes that a transitional period of three to four years is required to mainstream the reforms recommended in this report. The report has made some recommendations which do not require additional funding, and can be undertaken without allocation of extra funds to the institutions concerned. These could be instituted through reorganization of existing personnel and resources. However, there is need to identify recommendations that will need additional funding, and sources for the required additional resources secured. Development partners could facilitate and quicken this process by allocating earmarked funds for catalyzing and mainstreaming the reforms. In this way, short-term and long-term strategies for reform of higher education could be worked out.

Recommendations 9.1

b)   *The Ministry of Education should be the overall champion of reforms in higher education and in particular those that relate to policy guidance and coordination of government response to the recommended reforms.*

c)   *The Board recommends the appointment, in each institution (public universities, CHE, HELB and the Ministry of Education) of a champion or a committee to spearhead the implementation of the reforms. Time frames and targets should be established at institutional levels.*

d)   *Adequate resources for strengthening capacities for reform, research and jumpstarting/accelerating the implementation of the envisaged changes should be allocated by the Ministry of Education.*

e)   *Development partners should earmark funds for reforms in higher education for a period of at least four years.*

9.2   IMPLEMENTATION MATRIX

9.2.1   To set up an appropriate framework for the implementation of the recommended reforms and to ensure their domestication at each level and to generate a credible road map for reforms, the Board has isolated key recommendations from each chapter. The Board considers the isolated reforms strategic, and which must be addressed in the first instance.   These strategic recommendations are summarized in Table 9.1 below**.** Flagship recommendations include those focusing on the strengthening of the Commission for Higher Education as an accreditation and quality assurance body; mobilization of additional resources for higher education from alternative sources and effective utilization of available resources; enactment of an all-encompassing legal framework in form of a Higher Education Act; rationalization of academic programmes; increasing access and equity;

revitalization of research infrastructure, improved staff welfare and recognition, and the establishment of linkages between universities and industry.

9.2.2   The abridged recommendations in the matrix are numbered as they appear in the text under each chapter. The principal champion for the specific reforms envisaged under each recommendation is indicated and a time frame for implementation proposed.   Except for the recommendations which of necessity must be implemented on a continuous basis, the time frame given is the completion date. Most of the strategic recommendations in this report are proposed for completion within the next two years. Recommendations that call for extensive legal, structural and institutional changes are proposed for implementation within a period of five years.

9.2.3   The expected outcomes for each recommendation have been specified in the matrix. The anticipated outcomes are proposals which each designated champion for implementing a given recommendation will need to consult extensively in order to generate realistic outcomes which should be used for monitoring and evaluation. It is expected that there will be reforms implementation committees in each of the institutions. Such committees will be best placed to develop outcomes and specify indicators needed for assessing whether the expected reforms have been achieved or not.   The Board has suggested the institutions which should monitor and evaluate the degree and the rate of implementation of specific recommendations. The monitoring and evaluating institution may commission another competent body to carry out monitoring and evaluation on its behalf.

9.2.4   The Board has gone further to rank the recommendations in terms of their urgency, importance and the magnitude of their anticipated

impacts using a five-star scale. For example, recommendation 2.7 is given a five-star ranking (highest priority) to indicate that it is urgently required for implementation while recommendation 2.5 with a two-star rating has lower priority. Finally, the Board recognized that many of the recommendations might require substantial financial outlays for their full implementation. The task of accessing the quantum of funding required is a mammoth one which the Board has been constrained to undertake because of limited time and personnel. Some of the strategic recommendations, such as those on legal frameworks, reduction of wastage, students' welfare and innovative routes for resource mobilization do not require substantial financial outlays and may be implemented with limited finances and without undue delay.

9.2.5   The Board is of the view that all five-star recommendations in this report should be immediately analyzed to establish their financial requirements. To implement the recommendations proposed in this report there is need to develop schemes for mobilization of resources from all key partners, government, private sector and the universities. The cost for addressing the public appeal for the government to establish universities and campuses in the Coast, Eastern and North Eastern provinces could be substantially reduced if the launching of new institutions is based upon existing and underutilized facilities. Furthermore, establishing a National Open University immediately can also palliate the existing public demand for expanded access to university education.

9.2.6   Strategies and attendant costs for implementing some of these recommendations within the proposed time frames should be developed by the Ministry of Education in partnership with stakeholders.

Table 9.1: Implementation Schedule
Key
A.F   Additional Funding required within the budget
E.F   Extra Funding required outside the existing budget
N.F   Normal Funding within the existing budget

NO	RECOMMENDATION	CHAMPION	TIME FRAME	OUTPUT/OUTCOMES	M & E	RANK	FUNDING
2.0	**INCREASING ACCESS AND EQUITY IN HIGHER EDUCATION**						
2.1	a) The capacity, efficiency and relevance of all academic programmes should be assessed.	University Senates CHE	Continuous from 2006	Competitive & relevant programmes are retained	CHE, MoE	* * *	N.F
	b) Availability of academic resources to be basis of admission to public universities.	CHE (JAB committee) /universities	Continuous from 2008	Expanded access	Universities CHE	* * *	N.F
	c) Accommodation and catering should be privatized.	Public Universities	Start 2006 - 2010	Cost-cutting, efficiency and enhance student welfare	University Council	* * *	N.F
	e) Academic resource capacity be build to match admission rate demand.	Universities Councils	Continuous from 2008	Expanded access Assured quality	CHE and MoE	* * *	A.F
2.2	a) Private universities should be supported with infrastructure and research funds	MoE and MoF	Continuous from 2007	Location of universities Increased access Diversified academic programmes	MoE and CHE AKU	* * * *	A.F
2.3	a) A technical team to guide the upgrading of	MoE and CHE	Start 2006 to 2007	A road map for establishment of new	MoE , MoST,	* * * * .*	A.F

	polytechnics to offer technical degrees should be constituted				technical degree programmes			
2.4	a) Establish more middle-level colleges	GoK/ Private sector	Continuous from 2006	Expanded access Diversified and relevant skills	CHE and FKE		N.F and A.F
	b). Upgrade facilities in existing mid-level colleges (MLC)	GoK/MLC/Private sector	2006 – 2010	Expanded access Updated skills and enhanced Quality	CHE	* * *	A.F
	e) Empower selected polytechnics and other MLC's to grant degrees & diplomas	GoK/CHE	Continuous from 2006	Expanded access Multiplicity of skills	GoK/CHE	*.*.*.*	A.F
2.5	Open access to those who have acquired knowledge, skills and competences in non-formal settings	University senates and MLCs	Continuous from 2007	Increased access to higher education	CHE	*.*	A.F
2.6	a) Undertake a feasibility study for establishment of community colleges and institutes (CCI's)	GoK/CHE	2007-2008	Expanded access Regional equity and distribution of higher education providers	MoE /MoST/ ALGA, Local communitie s leaders	* * *	A.F
2.7	a) Establish universities with specific mandates at the Coast, Eastern & North Eastern provinces	GoK/Local communities	Continuous from 2007	Expanded access, regional equity, improved educational performance in the provinces	GoK; local leaders	* * * * *	A.F and E.F
2.8	a) A policy on Open and Distance Learning (ODL) should be formulated.	MoE Universities	2006-2007	Report on road map on ODL development	AVU.GoK; universities CHE	* * * * *	N.F

	b) Establish an Open University of Kenya	MoE/ private sector/ universities	2008	Expanded access, life long education Acquisition of new skills Enhanced equity	CHE	* * * * *	E.F
2.9	a) A unit for compiling reliable statistics and databases on Higher Education and student/staff mobility should be established.	CHE/MoE Universities, MoFA, CBS	Continuous from 2006	Reliable statistical data for planning and decision making	MoP/CHE	* * * * *	A.F
2.10	a) Policies on gender and Affirmative Actions in Higher Education (students and staff) should be mainstreamed	Universities Gender Commission	Start 2007 to 2015	Gender equity	MoGS/ FAWE	* * * *	N.F
	d) Establish merit based scholarship awards to address gender disparities in higher education	HELB/MoE Private sector universities	Continuous from 2006	Gender equity	CHE FAWE	* * * *	E.F
	f) Establish/upgrade on girls secondary schools in disadvantaged districts	MoE/ local Communities Civil society	2007 - 2015	Increased enrolment of girls in universities and MLC's	MoE Civil Society	* * *	A.F
	h) Mainstream policies on sexual harassment	MoE/MoSG Universities CBO	2006	increased retention rate for girls in universities gender friendly environment	MoGS CBO/CHE	* * * *	N.F
2.11	a) A detailed study on who accesses higher education in Kenya should be done.	CHE	2006 -2007	Data on access to universities	MoE	* * *	N.F

	c) The best two students from marginalized districts be given special attention by admitting them in professional programmes prior to those programmes be given exposure	CHE Universities	Start 2006	Increased enrolment of students in competitive programmes.	MoE/ University HEQAC	* * *	N.F
2.12	Mainstream students with special needs e.g. adapting facilities; institute special scholarships for them	Universities	2006 - 2010	Accessibility and retention of special needs students	MoE	* * * *	A.F
2.13	Formulate national policy on postgraduate education and training	MoE, Universities, research institutes	Continuous from 2007	Policy document on the road map on development of postgraduate training	CHE/ Private sector universities	* * * *	N.F
2.14	d) Formulate scheme to engage Kenyan and East African Scholars in the Diaspora in local universities	Universities, MoE IUCEA	2007 – 2009	Tap intellectual resources in Diaspora Enrich research programmes and enhance regional cooperation	MoE CHE IUCEA	* * * *	A.F
	g) Allocate government funds for postgraduate scholarships and programmes	MoE/CHE	Continuous from 2007	Quality postgraduate programmes and increase number of postgraduate students	MoE	* * * *	A.F
2.15	a) Make local universities international in terms of student enrolment	universities	2007 – 10	The international students will about 15% Resource mobilization Regional higher education hub increased quality of education and fund	MoE/ IUCEA	* * *	N.F

				raising			
	e) Identify strategic areas to train professionals from S. Sudan, Somalia and DRC for their reconstruction development	universities OP; Civil society	2007 – 15	Trained professional in the countries Peace and stability Regional cooperation	GoK, CBO, Development partners	* * * *	A.F
3.0 QUALITY ASSURANCE IN THE UNIVERSITY SECTOR							
3.2	b) Universities should declare admission capacities including SSRs and FTSEs standards	Universities /CHE	Continuous from 2007	Assured quality and cost effectiveness in learning and teaching Realistic enrolments	MoE/CHE	* * * * *	N.F
3.3	b) Amalgamate self-supported and government supported students	Universities	By 2008 – No distinction of student	Equitable treatment of all students in learning and teaching	MoE/CHE	* * * * *	N.F
3.4	Rationalize utilization of internally generated funds	Universities	2006 - 2007	Efficient and effective utilization of resource Enhance accountability and transparency	MOE University Councils	* * * * *	N.F
3.5	a) Formulate and implement schemes for progressively recruiting up to 15% of their total number of students from outside Kenya	Universities	2006-2010	Make universities have international image	CHE/MoE	* *	N.F

3.7	Institute training policies at universities to increase the number of academic staff by at least 180 p.a.	MoE Universities	Continuous from 2007	Sufficient staff in universities Effective succession programmes	CHE MoE Chancellors	* * * * *	A.F
3.8	Rationalization of public universities to be recognized as a provider of specialized training and research in specific area of enquiry	CHE/ MoE	2006 - 2010	Creation of centres of excellence in teaching, research and innovation	MoE Professional associations	* * * *	N.F
3.9	a) Train lecturers in pedagogy, research skills and use of ICT and modern tools	Universities	Continuous from 2006	Effective teaching and research	CHE	* * * *	N.F
3.10	An inventory of the number, type and status of teaching and research equipment in Kenyan universities and Research institutions should be compiled.	NCST/CHE	2007	A comprehensive report of the status of scientific and technological equipment in the country.	MoE/MoST	* * * *	N.F
3.11	Stalled projects should be re-evaluated rationalized and prioritized for realistic completion	MoE/Universities	2006 - 2008	Completed lecture halls, laboratories, staff houses accommodation	MoE/CHE Chancellors	* * * * *	A.F
3.14	Provision of infrastructure to promote private universities.	MoE	Continuous from 2006	Opening of new universities Expansion of existing universities Extra programmes being mounted	CHE Vice – Chancellors Committee	* * * *	A.F

3.15	a) Expand of learning and teaching facilities including ICT infrastructure	Universities	Continuous from 2006	Better teaching facilities Utilization of ICT leading to efficient teaching	CHE	* * * *	E.F
	b) Establishment of mechanisms for joint procurement, serving and running cost of laboratory equipment	CHE /universities NCST	Continuous from 2007 -	Cost- effective utilization of resources Enhanced partnership	CHE Universities	* * * *	N.F
3.16	CHE to become external Quality Assurance Agency in higher education sector in Kenya	MoE	Continuous from 2006	Quality higher education. Relevant academic programmes	MoE	* * * *	A.F
3.17	Identify academic programmes that do not attract enough students and are not cost effective and are not responsive to social economic development	CHE universities	Continuous from 2007	Relevant, cost effective programmes responsive to the social economic development of the country	CHE	* * * *	N.F
3.19	a) Guidelines for mounting new academic programmes should be developed to ensure relevance	CHE Universities	2007	Guidelines of new programmes	CHE/profes sional associations FKE	* * *	N.F
	b) Involve professional association and industry in program reviews, accreditations, and development of curriculum	CHE Universities professional association	2006	More relevant programmes responsive to the countries needs and marketability of the countries graduates	CHE/Prof. associations and Industry	* * * *	N.F

3.20	a) The current four-year B.Ed. programmes should be restructured.	Universities	By 2008	Focus primarily on subject content and depth for four years, followed by at least one-year of professional teacher training course.	CHE/MoE	* * *	N.F
3.21	The development for assessing programme based Quality indicators	CHE/ universities	2007-2009	Quality indicators and benchmarks Program accreditation mechanism	CHE/Prof. Bodies	* * * *	N.F
3.23	b) All academic programmes (curriculum delivery and resources) should be rigorously reviewed in staggered manner every five years	Universities CHE Prof. Bodies	Continuous from 2008	Competitive, relevant and up-to-date programmes	CHE Private sector, Professional Association NCEA	* * *	A.F
3.24	Develop required core courses which reflect the character and values of the university should be developed	University and Chancellors	2006	Core competences and value systems Life learning skills	CHE/ MoE	* * *	N.F
3.25	b) Quality Assurance offices (QAO) shall be established in all universities to enforce internal QA schemes	Universities	2007	Well defined quality assurance mechanisms	CHE	* * * *	N.F
	d) Periodic reviews of all university curricula by competent expert committees in order	Universities	Continuous from 2006	Academic programmes that are responsive and consistent with changes in	CHE/MoE	* * *	A.F

				technology and industry			
3.26	Universities should strive for international certification such as International Organization for Standardization (ISO)	Universities /CHE	Continuous from 2007	Attainment of international benchmarks in their quality assurance systems on both academic and management systems	CHE/MoE	* *	N.F
3.31	Develop a national science policy and research agenda	Universities NCST National Research Institutes	2007	A national science and technology policy and research agenda for the country	MoST/CHE/ MoE /industry	* * * *	A.F
3.32	Universities should establish linkages with industry	Universities	Continuous from 2007	Relevant Academic programmes that meets the needs of the society. Graduates with practical skills through industrial attachments and internships	CHE	* * *	N.F
3.34	Universities should focus much more attention on hands-on and applied technology in addition to academic science orientation	Universities	Continuous from 2006	Human resources that are not simply consumerism and mere hawkers of goods produced elsewhere	CHE	* * *	N.F

4.0	STUDENT WELFARE AND DISCIPLINE						
4.1	University and tertiary institutions admissions should be completed within 6 months after KCSE results	CHE(JAB)	2007	Reduce students transition time to the university and other tertiary institutions	CHE, KATI, MoE ,KSSHA, PA	* * *	NF
4.3	Feasibility study on establishing a Students Voluntary Services Programme (SVSP) should be undertaken	Chancellors/ universities/ Civil Society	2007	Report on student to the world of work Establish the SVSP Enhance Service delivery in critical areas	MoE	* * *	AF
4.6	Academic and social mentorship programes should be introduced in universities and tertiary institutions	Vice-Chancellor	Continuous from 2006	Character formation and normative skills. Adjustment to university life	Universities Council	* * *	NF
4.7	Tuition and learning facilities in public universities should comply with standards specifications of CHE	Universities	2007	Accredited facilities to meet international standards and benchmarks Enhancement of quality. Maintenance of required standards	CHE	* * *	AF
4.11	b) Examination regulations should be complied with.	University Senates	2006	Quality, credible and fair control mechanisms examinations	University Councils, CHE, Staff and Student Unions	* * * *	NF
4.12	Incorporate external investors in provision of	Chancellors/ University	2008	Suitable and secure environment for	University Council	* * *	NF

	students accommodations which meet approved standards	Councils		students. Enhanced economic activities for surrounding communities Increased accommodation for students	Staff unions Parents Alumni		
4.15	Policies and regulations for disaster management be developed and safety equipment be inspected regularly	Universities	Continuous from 2006	Enhanced safety for students and staff (Conducive for learning) Policy on Disaster Management	University Councils/ MoH MoPW	* * *	NF
4.16	c) Universities should comply with national and international standards for health and safety	MoH Universities	Continuous from 2006	Enhanced Health and safety for students and staff	CHE/MoH	* * * *	NF
4.17	b) Universities in Kenya should declare their environments pollution free (noise and litter), drug, alcohol and smoking free zone	MoH Universities	Continuous from 2006	Culture of healthy living	Universities CHE/MoH	* *	NF
4.19	a) Recreation and sports policies, and funding of sports should be established in each university	Chancellors/ universities	Continuous from 2006	Sports Policy. Holistic education for graduates. Enhanced sports activities	MoSG/ Alumni	* * *	NF
	d) Universities should be centres of excellence in sports through specific training programmes, scholarship and investment in equipment	Universities	Continuous from 2007	Development of appropriate criteria for provision of scholarships and motivation of sportsmen and	MOSG HELB	* * * *	NF

	by pooling resources			women			
	e) Academic programes on sports education and sports medicine should be established	University Senates	Continuous from 2006	Increased sports programmes	CHE	* * *	AF
4.21	a) Universities should source for funding to increase access and completion rate of students with special needs	Universities	Continuous from 2006	Increased access and equity for students with special needs	MoSG. MoE	* * * *	NF
	b) Universities should ensure that its facilities are user friendly for students with special needs	Universities	Continuous from 2007	Accessibility of all facilities by special needs students	CHE/MoE	* * * *	A.F
4.22	a) Student leaders should be trained in governance, management and conflict resolution to enable them discharge their duties effectively	Chancellors	Continuous from 2007	Responsible student leadership, improved students responsibility	University Councils/ Civil Society	* * * *	NF & AF
	d) Public universities should have a leadership training center to train student leaders and any other student on leadership skills; communication and decision-making skills, negotiation skills, writing and public speaking	Chancellors	By 2009	Graduates that will be leaders in the knowledge economy	CHE/MoE	* * *	A.F
4.24	In addition to KCSE results, students should be of sound character to merit admission to university.	CHE (JAB)	2007	Disciplined student community	MoE	* * *	NF

	Criteria for appeals mechanisms to be developed by CHE.						
4.25	c) Alumni and parents should assist within the department of student affairs in resolving student conflict and discipline matters	Alumni Associations Universities University Parents Associations	2008	Collective responsibility in character formation. Effective conflict resolution mechanisms	University Council/ Civil Society	* * *	NF
	d) Universities should establish mechanisms and incentives for recognizing and awarding good behaviour and conduct	University Council. Universities Senate	Continuous from 2006	Creation of Chancellors Honours Roll	CHE	* * *	NF
4.26	University parents forums should be established	Vice Chancellor	2007	Shared responsibility on students development	University Council	* *	NF
4.27	Philanthropists should be encouraged to support needy students through tax incentives and research Universities should establish SA offices	Vice-Chancellors	2007	Expanded access and equity. Correct financial advice to students	Chancellors	* * *	NF
4.28	All academic programmes be amalgamated and timetabling done in such a way that all students are admitted, taught and examined as one class.	Universities	2007	One student body with no differentiation of SSP and Regular students	CHE	* * *	N.F
4.29	Universities should outsource security services and establish University Community Policing	Universities	2008	Enhanced safety of students and staff	CHE	* * *	A.F

4.30	Each university should have a strong student support and counseling centre, providing counselling services and imparting essential life skills	Universities	2007	Graduates with essential life skills	CHE	* *	N.F
4.31	Policies on internships should be developed. Alumni association could be used as a bridge	Vice-Chancellor/ Alumni Associations/ DIT	2007	Development of practical skills. Effective Internship placement	CHE/DIT Universities	* *	NF

5.0   TEACHING AND NON-TEACHING STAFF WELFARE AND DISCIPLINE

5.2	The working conditions of staff, such as sufficient and property equipped staff offices should be provided	University Council	Continuous from 2006	Motivated and productive staff. Enhanced Equity	Chancellors/ CHE	* * * *	A.F
5.3	Lecture halls, seminar rooms and laboratories should be equipped with adequate/modern facilities and research facilities	Universities	Continuous from 2006	Provision of high quality teaching and research infrastructure	CHE	* * *	AF
5.4	Universities should allocate adequate budgetary support to purchase modern equipment; upgrade and repair broken down equipment and maintain laboratory equipment for research.	Universities GoK	Continuous from 2006	Provision of sufficient funding and quality teaching. Establishment and maintenance of international quality standards	CHE/NCST/ MoE	* * *	EF

5.5	Guidelines be developed on how expensive equipment and other resources are to be shared e.g. location, maintenance, management and replacement	CHE /Universities	Continuous from 2007	Maximum cost effective utilization of resources. Enhanced quality teaching. Wide exposure by all universities to the state-of-the-art equipment	NCST	* * *	NF
5.6	Adequate budgets should be allocated for books and journals for staff and students	Universities	2006	Up-to-date curricula	CHE	* * *	AF
5.7	b) The salary of academic and other staff should be rationalized derived from the current government approved salaries of VC's	Vice-Chancellors	2006/07	Increased staff morale and productivity. Reduction of the gap between the VC and other staff. Reversal of brain drain and creation of professionalism	Universities Council MoE/ Staff unions	* * * * *	AF
5.8	Public University Service Committee (PUSC) should be established to review terms and conditions of service bi-annually	MoE Universities	Continuous from 2007	Proactive review of terms and conditions of service and enhanced professionalism. Committed and motivated staff	Universities Staff unions	* * * * *	AF
5.9	The terms and conditions of service should be desegregated for academic, administrative and support staff	Public Universities Service Committee	2007	Relevant and responsibility based schemes of service for rational staff development	Universities	* * *	N.F

5.11	Results-oriented promotion criteria should be developed, based on quality of teaching innovations and service	Universities	2007	Transparent criteria recognizing excellence in teaching, innovation and service	Universities Council	* * * *	N.F
5.12	Universities should boldly implement the provision of emeritus professorships	Vice-Chancellors	2006	Benefits from experienced retired professors	University council	* * * *	A.F
5.13	There should be framework for joint appointment of outstanding scholars	Vi-Chancellors	2007	Maximum usage of available resources	University Councils	* * *	N.F
5.16	Tuition waiver of at least 50% to all staff, spouses and children in order to attract competent staffs;	Universities	2007	Retention of committed staff and alumni	University Council	* * * *	N.F
5.17	Tax incentives should be provided to staff to acquire tools for improving quality of teaching and research	Universities	2006/2007	Motivated staff, Quality teaching and research	MoE/KRA	* * * *	A.F
5.22	Attractive home-ownership schemes should be developed in order to retain staff	Universities	Continuous from 2006	Affordable and better housing for staff Reversal of brain drain Strengthened institutional bonding	University Council	* * * *	A.F
5.20	Universities should develop implement policies to reduce gender disparity and achieving women academic of one third by 2010	Universities	Continuous from 2006	Gender equity	MoE/CHE/ University Council	* * * *	A.F

5.21	Staff with outstanding talents and performance in teaching, research and management be rewarded and recognized nationally	Universities /MoE	Continuous from 2006	Increased staff morale, productivity and strive for excellence	Chancellors/ Office of the President	* * * *	N.F
5.25	Criteria should be developed on which staff qualify for responsibility allowance, entertainment and membership to professional, sports and social clubs	Universities CHE	2007	Best practice in human resource development	University Councils	* * *	N.F
5.27	Mileage payments should be based on AA rates	Universities	2006/7	Increased staff productivity	University Council	* * *	N.F
5.33	A suitable book and equipment allowance. Staff should be paid to all teaching	Universities	2006/7	Effective teaching and research	University Council	* * *	N.F
5.34	University retirement schemes should comply with RBA requirements	Universities	Continuous from 2006	Secure staff retirement benefits	University Councils /RBA	* * *	N.F
5.35	Universities should have clear capacity building programmes for succession Management and expansion	Universities	Continuous from 2007	Sustainable and qualitative staff replacement and enhancement for expanding enrolment	CHE	* * *	N.F
5.36	(c) Bilateral agreements should be developed to ensure return of Kenyan talented and students from other countries; and reimbursement of training expenses for locally trained professionals working in developed	MOE/MOFA Universities DPM AG	2008	Sustainable staff training and development commensurate with increased student numbers and emerging professions	MoFA/MoE/ Universities	* * *	N.F

	countries					
5.37	Identification of staff for training should be done fairly, accountably, transparently, and be based on objective criteria.	Universities	Continuous from 2006	Domestication of best practices in human resources development based on merit	University councils and unions	* * *	N.F
5.38	Universities should set aside a budget for training and staff development	Universities	Continuous from 2007	Sufficient number of staff for expanding enrolment and replacement	Universities council	* * * *	A.F
5.40	Staff performance appraisals should be institutionalized	Universities	Continuous from 2006	staff performance is a reliable Quality assurance platform	Universities councils and unions	* * *	N.F
5.43	PG students should engage in supervision of undergraduate, marking CATS and tutorials as part of their training	Universities	Continuous from 2007	Practical post graduates with relevant skills, and more research by lecturers Early identification of potential lecturers	University Senate	* * * *	A.F
5.45	b) The teaching load of tutorial fellows should be balanced with their research load to allow them complete their studies on time	Universities	2006	More tutorial fellows graduating on time.	University Senate	* * *	N.F
5.46	The published codes of conduct for university staff should be domesticated and enforced	Universities	Continuous from 2007	Enhance staff discipline and productivity	CHE	* * *	N.F
5.52	Appropriate ceilings of class sizes and individual staff workloads should be established.	CHE /Universities/ QAO	2007	More productive and motivated staff Quality is enhanced	CHE	* * *	N.F

5.53	Physical facilities should be adapted to address the needs of physically challenged members of staff	Universities	2009	Conducive environment for staff/students with special needs, enhanced equity	CHE	* * * *	A.F
6.0 MEETING DEMAND FOR KNOWLEDGE, RELEVANT SKILLS AND COMPETENCIES							
6.1	A database of obsolete current and emerging occupations should be constructed.	Universities, MoL, CBS,	2008	Relevant and up to date training programmes	Mo Planning	***	A.F
6.2	Training needs assessments should be carried out every four years.	--Do--	2008	--Do--	MoL	****	N.F
6.3	A Statistical program for projecting future enrolment in tertiary institutions should be developed.	MoL, CBS,	2008	Reliable statistics for planning purposes	MoL	****	N.F
6.4	Poverty reduction and wealth creation should be incorporated into University missions.	Universities	2008	Robust missions for entrepreneurial universities	MoE	*****	N.F
6.5	Strategies for employment creation, poverty reduction and development of entrepreneurial skills be part of university Training.	Universities	2008	Enriched and relevant training programmes	MoE	***	NF
6.6	a) The quantity and value of the outflow of skilled labour from Kenya should be determined	MoE	2007	Reliable statistics on training needs will be established	MoFA	***	A.F

6.6	b) Countries importing skilled labour from Kenya should reciprocate with grants for replacement capacity building	MoFA and AG's Chamber	2008	Expanded of opportunities for Kenyan graduates	MoE	***	N.F
6.7	The low enrolment rate into agriculture and related programs should be determined and proposals for their rejuvenation formulated	MoA and universities	2007	Rejuvenated agricultural academic programmes	CHE	*****	N.F
6.8	University curricula on water sciences and engineering should be developed and mounted	MOW, Universities	2007	Assured availability of potable, irrigation and industrial water to all Kenyans	Mo Planning	*****	N.F
6.9	The capacity of medical programmes in universities should be established	Universities MoH	2008	Efficient medical training programmes	CHE	****	N.F
6.9	c) Regional medical training campuses should be established within selected provincial and district hospitals	universities, MoH	2008	Expanded access to relevant training in health and medical programs	CHE MoH	*****	E.F
6.9	d) A framework for ownership and management of universities teaching hospitals should be developed	MoH, Universities AG	2008	Maximum and smooth utilization of university hospitals, reduced conflict in management	CHE MoH	*****	N.F
6.9	e) Research on alternative treatments (e.g. herbal medicine) and teaching methods (ICT, Distance learning) should be introduced.	MoH universities	2008	All inclusive and relevant training on health care	MoH, NCST	****	E.F

6.10	Training and research on infrastructure engineering, mining and material sciences should be introduced in selected universities	universities	2007	Enhanced use of applied research into the use of local materials	Roads and public works	****	E.F
6.11	National Energy Institutes should be established for Training and development of energy sources and alternatives	Mo Energy, NCST universities	2007	Increased self reliance on energy using alternative energy sources	MoST CHE	*****	E.F
6.12	Broad based foundation courses on culture, history, communications etc should be introduced as part of graduation requirements	universities	2008	Flexible, malleable adaptable, and knowledgeable graduates	MoE	****	N.F
6.13	A programme on peace conflict resolution and security studies should be established in some universities	Foreign affairs	2007	Kenya's leadership on security and peace studies in the region.	Foreign affairs	****	E.F
6.15	A National Observatory for monitoring social, political, economical, scientific and technological trends should be established	MoE, DOD universities	2006	Objective evidence on policy formulation planning and implementation.	GoK	*****	E.F
6.16	Universities should revisit and review their missions and strategic objectives	Universities	2007	New generation of entrepreneurial and developmental universities	CHE GOK	****	N.F

6.17	c) Kenya National Occupational Standards should be updated to take account of changing skills and technologies	DIT MoL	2007	Realistic and relevant training programmes	MoL	***	EF
6.18	A partnership between secondary schools, relevant educational bodies and agencies such as KIE, KNEC, Kenya Secondary Schools Heads Association (KSSHA) and tertiary institutions be created	Universities KIE KNEC KSSHA MLCs	2007	Smooth transition from secondary to higher education	MoE/CHE	***	AF
6.19	Inter- institutional linkages between universities and industries should be strengthened to enriched curricula development	Universities Industry	2007	Balanced, practical and relevant curricula	CHE MoE	***	NF
6.20	Curricula of middle level colleges should be reviewed every four years	MoE	2007	More relevant programmes	MoE	***	AF
6.21	b) A portion of the Industrial training levy funds should be allocated to universities for strategic research.	NITC	2007	More research output.	MoST	*****	N.F
6.22	a) At least 1.5% of GDP should be set aside for research and development	MoS & T	2015	Enhanced research and development output.	MoS & T	*****	EF
	b) A national science, technology and innovation policy should be formulated	N C ST	2007	Realistic science, technology and innovation competences	MoS &T	*****	

	c) Research capacity in universities , institutes and industries should be assessed	N C ST	2007	Viable Framework for building national capacity in R & D	MoS & T	****	E.F
6.23	a) University staff should be facilitated to undertake attachments in industries, government departments and civil society	Ministry of Trade and Industry	2007	Enlightened, practical and up to date lecturers	Universities	***	AF
	b) Quality personnel from industry to be considered for appointment as adjunct professors	Universities Industries	2007	Enriched and Relevant programmes	Universities	****	A.F
	g) Private sector should be given incentives to attract investments in new production technologies.	Ministry of Trade and Industry, KRA	2008	High level skills, know how and knowledge transferred to Kenya.	Ministry of Industry	***	E.F
6.24	The government in partnership with industry and build strong ICT platform	Ministry of Trade and Industry	2008	and develop centres To make Kenya as champion in ICT competencies and future regional leadership in this field	CHE	***	EF
6.25	Foreign direct investment should be attracted for technology based investments	Industrial promotion authority	2007	Increased export growth upgrading of local skills	Ministry of Industry	***	N.F
	c) A technology development and venture capital fund should be established for investments in new technologies	N CST and MOF	2007	Enlarged capacity for Science and Technology Development	Ministry of Industry, Finance		E.F

7.0 RESOURCE MOBILIZATION AND FINANCING OF HIGHER EDUCATION

7.1	Future funding of established universities should be competitive and based on quality of graduates and research output	MoE/University Councils/ Senates	By 2008	Enhanced research output Efficient and effective utilization of resources Enhanced quality	MoE/CHE/ university councils	* * * *	A.F
7.2	a) The Differentiated Unit Cost (DUC) be implemented in all programmes including SSP and ODL. The Government to determine the number of students it will support.	MOE Universities	By 2008/9	Realistic funding of academic programmes. Greater accountability of financial resources Integrated student body Increased access	CHE	* * * *	A.F
7.3	Each university should set its own DUC based on its own unique circumstances	Universities CHE	2008/9	Competition leading to higher quality	MoE	* * * *	A.F
7.4	A study be undertaken to determine levels of rationalized/equitable financing mechanisms	CHE	2007/2008	A report on the roles of GOK households, and other stakeholders in financing of HE	MoE	* *	N.F
7.5	Government investment in HE and training should aim to reach at least 2% of GDP by 2010	MoE/MoF	2010	Adequately funded training and research Expanded HE	MoE	* * *	A.F

7.6	Government should facilitate provision of land, roads, water, sewerage, power and security as incentives for investors to establish / strengthen private universities	CHE/Private Investors	Continuous from 2007	Increased investment in HE in including rural areas Expand access and equity Increased participation of private investors	MoE	* * *	A.F
7.7	The disadvantaged groups and underserved regions of Kenya should be provided with targeted funding to ensure that qualified students access university education	MoE/Civil Society	Continuous from 2007	Enhanced access and equity in higher education	MoE/Civil Society	* * * *	A.F
7.8	a) Mechanisms for enhancing private sector participation in financing HE should be developed	MoE/Universitie s	2007	Road map for private sector participation in HE Enhanced private sector participation in HE, Research and community service	MoE	* * *	N.F
	b) Mechanisms and incentives for incorporating all forms of philanthropy in funding HE should be studied and implemented.	MoE /universities Civil Society	Continuous from 2006	Enhanced participation of philanthropies in HE and research (Individual, Trusts and corporations)	KRA/HELB	* * *	N.F

7.9	The private and GOK should cooperate in developing and implementing HE and Training policies.	MoE/MoL universities/ Private sector (FKE, KAM,)	Continuous from 2007	Active participation of private sector in governance, funding curriculum development and memberships in academic boards Enhance relevance of programmes	CHE	* * *	N.F
7.11	a) Public universities should rationalize the establishment of their staff as well as trim the many layers of administrative staff	Universities Council	2007	Lean, effective and efficient administration and management structures	CHE/Unions	* * *	E.F
	b) Universities should decentralize resources and administration to core-business units	Universities Council	2007	Cost effective utilization of resources	CHE/Unions	***	EF
7.12	Universities should out source all non-core business	University Councils	2008/2009	Enhance efficiency and cost effective in delivery of services Stronger academic research and consultancy programs	University Councils	* *	E.F
7.13	Universities should recruit investment managers to spearhead development and management of the resources owned by the universities	Universities Council	Continuous from 2006/7	Efficient development and utilization. Additional income	Chancellors	* * * *	N.F

7.14	a) Universities should develop strategies to attract financial support from private sector, development partners and alumni. c) In order to have trust, universities should publish their audited accounts in the media	Universities	Continuous from 2007	Increased participation of private sector, development partners and alumni in resources mobilization	University Councils	* * * *	N.F
7.16	Universities should aggressively attract foreign students who will pay premium fees	Universities	Continuous from 2007	Increased diversity of student body increased income	CHE/universities/Immigration Department	* * *	N.F
7.17	a) At least five per cent of all funds allocated for HE should be set aside to support quality and relevant research	MoE/CHE Universities Council/NCST	Continuous from 2008	Enhanced output of quality research	MoE/CHE	* * *	A.F
7.18	b) The government should act as a grantor to enable HELB to borrow adequate funds from the financial market	HELB	2007	Increased funds for higher education	CHE/MoE	****	N.F
7.19	The HELB loan repayment interest rate of 4% should be adjusted to reflect the real cost of borrowing capital.	HELB	2008/9	Enhanced repayments of HELB	MoE	*	N.F
7.20	The current means testing should be reviewed to identify cases of special need for scholarships and bursary awards	HELB/ Voluntary Association	2007/08	Increased access and equity for special need students	Universities	* * *	N.F

7.21	b) A comprehensive database of HE students should be compiled and shared with KRA, NSSF and FKE	Universities/ CHE/ MoE/HELB	2007/8	Increased rate of loan recoveries Accurate data on student enrolment	MoE /Immigration Department	* * *	A.F
7.23	a) Universities Grants Committee (UGC) should be re-vitalized,	CHE	2008/2009	Equitable processing of universities' financial needs and allocations	MoE	****	AF

8.0 GOVERNANCE AND MANAGEMENT IN HIGHER EDUCATION

8.1	A comprehensive unifying legal framework be established in Kenya to guide all aspects of higher education and training	CHE/MoE AG	2006/2007	Coordinated development and management of HE	MoE	* * * * *	N.F
8.2	The proposed Act should also provide for the establishment of a Nominations Committee that will oversee the identification of members for the appointment to the governing bodies of higher education institutions	CHE/MoE A.G	By 2007 Continuous from 2006	Competent members of the Councils and Board of Higher Education Institutions	MoE/CHE	* * * * *	A.F

8.3	The Higher Education Act should empower the relevant minister to establish higher education institutions through legal notices	CHE	2008	All universities to be established through CHE. Assurance for quality and relevant academic programmes.	MoE	* * * * *	N.F
8.5	Transparent mechanisms for handling harassment and lodging appeals to be provided for	Universities	Continuous from 2006	Transparent management of personnel affairs	CHE	* * *	N.F
8.7	Companies established by universities should be run as agencies and not holding companies	University Councils	Continuous from 2006	Secured university properties Enhanced transparency and accountability of university income	MoE /University Councils	* * * *	N.F
8.9	Members of organized unions should not be in university management to avoid conflict of interest	Universities	Continuous from 2006	Good corporate governance	University Councils	* * *	N.F
8.10	Public universities should be independent of state corporations Act	MoE AG	2006/2007	Increased flexibility and accountability in resources mobilization and utilization, with institutional audits being published in the media	Universities	* * * *	N.F
8.11	Legal provision of non-discrimination should include gender, special needs and age	MoE/CHE /Universities A.G	2006/2007	Protected interest of vulnerable groups	CHE/MoE/ MoGS	* * * *	N.F

8.13 8.20	CHE should establish the following statutory units. 1. Joint Admission Board 2. HE Quality Assurance Committee, 3. HE statistics unit 4. Dispute Resolution Committee 5. Public Universities Service Committee 6. National Qualification and Certification Committee (NQCC) and with their own gazetted chair and members	CHE/MOE	Continuous from 2008	Transparent participatory discharge of CHE's responsibilities Enhanced CHE mandate in HE Harmonization of credit accumulation and transfers	MOE	* * * *	E.F
8.15	CHE should accredit and validate academic programmes in all MLCs offering university level programmes in Kenya	CHE	Continuous from 2006	Flexible credit transfer system Standardized quality of academic programmes	MoE	* * *	
8.16	The establishment of new campuses and decision on courses to be offered should be reviewed and approved by CHE	CHE/MoE	Continuous from 2009	Accredited campuses and programmes Increased public confidence in new campuses and programs. The facilities, programs and teaching staff to be accredited Enhanced quality of programmes	MoE	* * *	N.F

8.19	The CHE Chief Executive should be recruited competitively	MoE CHE	Continuous from 2006	Transparent and fair recruitment of CE based on merit Improved performance	MoE	* * * *	N.F
8.20	A framework for accumulation and transfer of academic credits should be established	CHE Universities MLC's	Continuous from 2006	Student transfer of credits Increased access and recognition of credits Accelerated completion of degree	CHE	* * * *	N.F
8.21	b) Guidelines and standards for local and foreign institutions before they are registered in Kenya. They should operate within the framework set for other local universities	CHE	2006	Credible foreign institutions Protections of clients from exploitation Public confidence in foreign universities operating in Kenya	MoE/CHE	* * * *	N.F
8.23	b) All universities without statistics units/offices should establish them	Universities	Continuous from 2006	Availability of reliable data for planning	MoE/University Councils /CHE	* * * *	N.F
8.28	Loan beneficiaries of HELB should acquire PIN for easy tracing and loan recovery	HELB KRA	Continuous from 2006	Efficient tracing of loanees, increased rates of recovery	HELB	* * * *	N.F

8.29	a) The Chancellor should be appointed by the president from a list of three names submitted by the Council through a search committee	MoE	Continuous from 2007	The appointed chancellors will have a broad mandate of legitimacy and belonging	MoE	* * * *	
8.30	The Chancellor should assume the role of senior elder, confer qualifications, preside over the chancellors court and facilitate university fund raising and oversee the Chancellors honours list	Chancellors	Continuous from 2006	Chancellor will be custodian of traditions character identity and history of the university.	MoE	* * * * *	N.F
8.31	The Chancellor's court/forum should be established in public universities	Vice-Chancellor	Continuous from 2007	Participation of all stakeholders in university affairs. Increased public awareness of public universities	University Council	* * * * *	N.F
8.33	a) Membership in Council should be reduced to about 15 members with no one gender having more than two third representation	MoE	2007	Effective and efficiently in council	MoE	* * * *	N.F
	e) The Council shall have key committees dealing with critical issues affecting staff and students welfare:	Universities	2007	More efficient council	MoE/Staff and student unions	* * *	N.F

8.34	b) Appointment of Council members should be staggered to allow for continuity and Institutional memory.	MoE /Universities	2007	Continuity and efficiency	MoE/CHE	* * *	N.F
8.37	c) Council should be employer of all staff, and approve ceiling on number of students to be admitted	MoE/Universities	2007	Domestication of best Corporate practices	MoE/CHE	* * *	N.F
8.38	Appointment of VCs should continue to be competitive and transparent. The VC's main job is mobilization of resources	MoE/University Councils	2007	Efficient governance	MoE	* * *	N.F
8.44	a) The administrative and Management structures of public universities should be rationalized by an independent consultant	MoE	Continuous from 2007	More productive and efficient senate	University Council	* * * *	A.F
8.46	Statutes should provide for award as well as withdrawal of degrees	Universities	2007	Protection of university integrity	CHE	* *	N.F
8.48	An audit of all institutions offering HE outside the MOE should be done for inclusion under CHE's mandate	CHE	2007/8	An up to date inventory of all tertiary institutions Platform for establishing a National Qualifications Framework	CHE/MoE	* * *	N.F
8.49	HE institutions should be represented in NETACO	Universities	2007/2008	Holistic development of HE every 4 years	MoE/CHE	* * *	A.F

8.50	The Higher Education Act should provide legal framework for linking HE institutions, research institutes and NCST.	MoE AG MoST	Continuous from 2008	Increased sharing of resources and benefits of synergy Enhance quality and relevance of research	NCST, CHE Universities	* * * *	N.F
8.52	a) A Bi-annual Congress on Higher Education in Kenya (CHEK) to be established in order to deliberate and review developments in HE	CHE/MoE /Universities MLCs	Inauguration 2007/2008 and continuous thereafter	Proactive, inclusive and informed development of HE in Kenya	MoE/CHE/Chancellors Prof. associations	* * * *	A.F

SELECTED REFERENCES

Abagi, O. (1997) *Revitalizing Financing of Higher Education in Kenya: Resource Utilization in Public Universities*. Association of African Universities (AAU).
www.aau.org/studyprogram/pdfiles/**abagi**.pdf

ADEA Working Group on Distance Education and Open Learning. (2002). *Open and Distance Learning in Sub-Saharan Africa: A Literature Survey on Policy and Practice*.

ADEA Working Group on Distance Education and Open Learning.(2005). *Costing Distance Education and Open Learning in Sub- Saharan Africa: Survey of Policy and Practice.*

Adeya, N. and Oyeyinka, O.(2002). *The Internet in African Universities: Case studies from Kenya and Nigeria.* United Nations University.
http://www.intech.unu.edu

Aduol F. W. O. (2004). *Unit Cost for Programmes in the Public Universities in Kenya*. Commission for Higher Education: Nairobi.

Altbach, P. and Patti, M. (April 1999). *Higher Education in 21st Century: Global Challenge and National Response.* www.iie.org/PDFs/Publications/report29.pdf

Alwy, A. and Schech S. (*2004).* Ethnic Inequalities in Education in Kenya. *International Education Journal Vol. 5, No 2, 2004.* http://iej.cjb.net

Appleton, S., Bigsten, A. and Kulundu, D. (1999). *Educational expansion and economic decline: Returns to education in Kenya*, 1978-1995.
http://www.bepress.com/csae/paper90

Business Post (April/May 2006) "*No R and D, No Economic Growth*", p 30 – 45.

Bok D. (2003). *Universities in the Marketplace: The Commercialization of Higher Education*: Princeton University, New Jersey.

Bollag, B. (2004). *Improving Tertiary Education in Sub-Saharan Africa: Things that Work*. Report of a Regional Conference held in Accra, Ghana on September 23 – 25, 2003.
http://www.worldbank.org/afr/teia/conf_0903/final.pdf.

Brock-Utne, B. (2003) *Formulating Higher Education Policies in Africa – The Pressure from External Forces and Neo-liberal Agenda*. Institute for Educational Research:University of Oslo.
www.siu.no/vev.nsf/d48a0ecf27ae054dc1256f630063e8d7/91f5ca696b97acc 3c1256dc5003e1cc8/$FILE/pres_b_utne.pdf

Covey, F. (1990). *Principle Centred Leadership*. United Kingdom: Simon and Schuster Ltd, UK.

Centre for Educational Research and Innovation. (2005*). E-learning in Tertiary Education: Where Do We Stand?* OECD, Paris.

CHE (2003). *Re-Engineering University Education for National Development*, Nairobi.

CHE (2004). *Commission for Higher Education, Draft Strategic Plan 2005 – 2009*, Nairobi.

CHE (2004), *Universities Coordination of Post Secondary School Institutions*. Government Printer, Nairobi.

CHE (2001). *Regional Workshop for Vice Chancellors*, Strategic Planning and Resource Management for Universities. CHE, Nairobi.

Chege, F. and Sifuna, D. (2006). *Girls Education and Women's Education in Kenya: Gender Perspectives and Trends*. UNESCO: Nairobi.

Cherono, M. (2003). *How Can the Rights and Needs of Persons with Disabilities be Catered for?* A Kenyan Country Paper presented at the East African Regional Workshop The Rights to Education for Persons with Disabilities; Towards Inclusion.
www.dpi.org/en/resources/ topics/documents/CountryPaperKenya.doc

Coast Development Authority (1998). *Proposed University at the Coast*: Coast Development Authority, *Mombasa.*

Coleman, J., and Court, D. (1993*). University Development in the Third World: The Rockefeller Foundation Experience.*:Pergamon Press.

Commission for Africa (2005): "*Our Common Interest*".

Court, D. (1999): *Financing Higher Education In Africa: Makerere, The Quiet Revolution*. World Bank and Rockefeller Foundation.

Duderstadt, J. (1999). *The Future of Higher Education in the Knowledge Driven, Global Economy of 21st Century*.
www.iie.org/PDFs/Publications/report29.pdf

Deloitte & Touché (1994). *Graduate Labour Market Study for the Commission for Higher Education*: *Final Report.* Nairobi.

Docquier, F and A Marfouk, (2004). "*Measuring the International Mobility of Skilled Workers – Release 1.0*," Policy Research Working paper, No. 3382. World Bank, Washington, D.C.

Docquier, F and A. Masfouk (2006) "*International Migration By Education Attainment, 1990 – 2000*" in International Migration, Remittances and the Brain Drain (World Bank), Eds. Ozden C and M. Schiff. Pp 151 – 199

Egerton University (2005). *Egerton University Strategic Plan, 2005 – 2015*,: Egerton University Press: Njoro.

FAO (2003). *The State of Food Insecurity in the World*. Rome

Fowler, A. and Kinyanjui, K. (2004). *Indigenizing Foreign Seed on African Soil: The Story of K-REP.* Nairobi.

Fry, P. and Utui, R. (1999). *Promoting Access, Quality and Capacity – Building in African Higher Education: A Strategic Planning Experience at the Eduardo Mondlane University*.: World Bank: Washington DC.

Hellen, D. and Schwartz, D. (November 2002). *Challenges to Equity and in Higher Education: An Analysis of Recent Policy Shifts.* A paper presented at the annual conference of the Association for the Study of Higher Education, Sacramento. CA, US.A. www.personal.psu.edu/faculty/ d/e/deh29/papers/ASHE_2002_challenges.pdf

Heston College; Year Book – 1991/1992, USA.

Higher Education Loans Board. (2005)(Revision No. 1). *Higher Education Loans Board Strategic Plan 2002 - 2007*. Government Printer: Nairobi.

Houghton C. N. (2004) *Promoting Philanthropy in Kenya: Making the Case For Tax Law Reform for the Creation of an Enabling Fiscal Environment for the Growth of Philanthropy.*

Hutton, C. and Haller L. (2004) *Evaluation of the Costs and Benefits of Water and Sanitation Improvements at the Global Level*. WHO, Geneva

International Labour Organization (ILO). (1972). *Employment, Incomes and Equality: A Strategy for Increasing Productive Employment in Kenya*. Geneva.

Jeliazkova, M. and Westerheijden, F.(2001): *A Next Generation of Quality Assurance Models: On Phases, Levels and Circles in Policy Development.* Paper for the CHER 14th Annual Conference. Higher Education and its Clients: Institutional Responses to Changes in Demand and in Environment. Dijon, 24 September, 2001.

Jomo Kenyatta University of Agriculture and Technology. (2004). *Jomo Kenyatta University of Agriculture and Technology Strategic Plan 2004 - 2014*.: Jomo Kenyatta University of Agriculture and Technology: Thika.

Juma,C. and Cheong,L. (2005*). Innovation: Applying Knowledge in Development: The Report of the Task Force on Science, Technology and Innovation of the UN Millennium Project*. Earth Scan.

Kaane H. L. (2005). *Skills Inventory, Training Needs Assessment and Development of Curriculum Structures*, Nairobi.

Kenyatta University. (2005*). Kenyatta University Strategic and Vision Plan (2005-2015).* Kenyatta University*:* Nairobi.

Kimalu, P., Nafula, N., Manda, D., Mwabu, G., and Kimenyi, M. (2000). *A Situational Analysis of Poverty Kenya*. Working Paper No WP/6/2002. KIPPRA: Nairobi.

KIPPRA. (2003). *African Higher Education.* Indiana University Press.

KIPPRA. (2003).Review of Terms and Conditions of Service for Academic Staff in Public Universities in Kenya: Policy Options for Forestalling Brain Drain. MoE, Kenya.

Lewin, Kurt (1996). *Change Theory in the Field and Classroom, Journal*; "Systematic Practice and Action Research" Volume 9 Number 1 February 1996 Springer, Netherlands.

Lumumba, A. (2004). "Sustaining Home-Grown Innovations in Higher Education in Sub-Saharan Africa: A Critical Reflection". *A Journal of International Cooperation in Education Vol. 7, No 1.* http://home.hiroshima-u.ac.jp/cice/assie-lumumba7-1.pdf

Magagula, C.(2004). "Is it a solution for Higher education in Sub-Saharan Africa?" *International Education Journal Vol 5, No. 2, 2004.* http://iecj.cjb.net

Makgoba, M. (1999). *African Renaissance: The New Struggle.* Mafube Publishing: Cape Town.

Maseno University. (2005). *Maseno University Strategic Plan 2005 - 2010*: Maseno University: Kisumu.

Mobli, M. (2002). *Challenges and Opportunities for the 21st Century*. Speech presented during the Conference on Higher Education in the Middle East and North Africa at the Institute de Mode Arabe, May 23rd 2002.

Moi University. (2005). *Moi University Strategic Plan 2005 - 2015*. Moi University Press: Eldoret.

Mwenda, N. (2003). *The Challenges of Education and Development in Post-Colonial Kenya Africa Development,* Vol. XXVIII, Nos. 3 & 4, 2003, pp. 211–228. Council for the Development of Social Science Research in Africa. www.codesria.org/Links/ Publications/ad3_03/ntarangwi.pdf

Mwiria, K. (1993). *University education in East Africa: Quality Crisis.* Unpublished Paper. Kenyatta University: Bureau of Education Research.

Mwiria, K. and Ng'ethe, N. (2003*). Public University Reform in Kenya: Mapping the Key Changes of the Last Decade.* Unpublished Paper.

Mwiria, K. (1991). *The role of good governance and positive university – development in Sub-Saharan Africa.* Washington, D.C.: Africa Technical Department, The World Bank.

National Council for Science and Technology. (2005). *National Council for Science and Technology Draft Strategic Plan 2005 – 2009*: National Council for Science and Technology: Nairobi.

Nderitu, C., Lynam, J., and Mbabu, A. (2004). *Transformation of Agricultural Research Systems: Lessons from Kenya* .East Lansing: Michigan State University Press.

Newman, John Henry. *The Idea of a University*. Double Image Books, New York;(2004), Newman Reader, London.

Ngambi, F. (2002). *Promoting an education system that works: Priorities and funding options for Kenya*. The Nairobi stock Exchange: Nairobi.

Ng'ethe, N. (2003) *Higher Education Innovations in Sub-Saharan Africa: A Regional Report of Universities in Eastern Africa*. Association of African Universities: Accra, Ghana.

Ng'ethe, N. et al. (2004) *Higher Education Innovations in Sub-Saharan Africa with Specific Reference to Universities.* Association of African Universities: Accra, Ghana.

Ngome, C. (2002)."*Kenya* in *African Higher Education; an International Reference Handbook"*. Eds Damtew Teferra and Philip G. Altbach.

Njuguna, N. and Lumumba, A. (2003). *Higher Education Innovations in sub-Saharan Africa: With Special Reference to Universities.* www.aau.org/wghe/publications/ wghe_innovations_ref_univ.pdf

NPI- Africa. (2006*). Violence in Kenya's Public Universities: Reverse in the Tide, Building a Culture of Peace and Dialogue*. Nairobi.

OECD/DAC (2003) *Supporting the Development of Water and Sanitation Services in Developing Countries*.

Okolie, Andrew C. (2003) *Producing Knowledge for Sustainable Developments in Africa.* Implications for Higher Education. Higher Education, 46, 235 – 260.

Otieno, J. (2003). *Governing Higher Education in the Stakeholder Society: Rethinking the role of the state in Kenya's higher education*. A paper prepared for presentation at the CHEPS Summer School, 29th June – 4th July, 2003. University of Maribor: Slovenia.

Otieno W. (2004). *Student Loans in Kenya: Past Experiences, Current Hurdles and Opportunities for the Future*: Kenyatta: University Nairobi.

Ozden, C. (2006) "Education Migrants. Is There Brain Waste?" In International Migration, Remittances and the Brain Drain (World Bank), Eds. Ozden, C. and M. Schiffs pp 227 – 244.

Republic of Kenya. (2001). *Poverty Reduction Strategy Paper for the Period 2001-2004.*. Government Printer, Nairobi.

Republic of Kenya (2003). *National Conference on Education and Training. Government Printer Nairobi.*

Republic of Kenya (1977). *National Council for Science and Technology Act*. Government Printer: Nairobi.

Republic of Kenya (1965). *Sessional Paper No. 10 of 1965 on African Socialism and Its Application to Planning in Kenya*. Government Printer: Nairobi.

Republic of Kenya (1968). *Education Act 1968*. Government Printer; Nairobi.

Republic of Kenya (1975). *Sessional Paper No.4 of 1975 Economic Prospects and Policies*. Government Printer: Nairobi.

Republic of Kenya (1981). *Report of the Presidential Working Party on Second University* in Kenya (*Mackay Report*). Government Printer: Nairobi.

Republic of Kenya (1985). "Ministry of Labour and Human Resource Development Survey of Training in Local Institutions 1985 – 1989 Report". Government Printer: Nairobi.

Republic of Kenya (1985). *Universities Act 1985*. Government Printer: Nairobi.

Republic of Kenya (1986). "*Report of National Manpower Survey – 1986 – 1988*". Government Printer: Nairobi.

Republic of Kenya (1986). *Sessional Paper No. 1 of 1986 on Economic Management for Renewed Growth*. Government Printer: Nairobi.

Republic of Kenya (1987). *State Corporations Act – 1987*. Government Printer: Nairobi.

Republic of Kenya (1994). *Sessional Paper No. 1 of 1994. Recovery and Sustainable Development to the year 2010*. Government Printer: Nairobi.

Republic of Kenya. (1995). *HELB Act of 1995*. Government Printer: Nairobi.

Republic of Kenya (1996). *Sessional Paper No. 2 of 1996. An Industrialization and Transformation Strategy* to year *2010*. Government Printer: Nairobi.

Republic of Kenya (1997). *The Eighth National Development Plan 1997 – 2001*. Government Printer: Nairobi.

Republic of Kenya (1999). *Totally Integrated Quality Education and Training (TIQET) (Koech Report)*. Government Printer: Nairobi.

Republic of Kenya (1964) Kenya Education Commission Report. Part One (Ominde Report), Government Printer,Nairobi.

Republic of Kenya (1964) Kenya Education Commission Report. Part Two (Ominde Report), Government Printer,Nairobi.

Republic of Kenya (2000). KNOCS – *Kenya National Occupational Clarification Standards, 2000*. Government Printer: Nairobi.

Republic of Kenya (2004). *Development of Education in Kenya, Ministry of Education Science & Technology*. Government Printer: Nairobi. www.ibe.unesco.org/International/ ICE47/English/Natreps/reports/**kenya**.pdf

Republic of Kenya (2005). *Geographic Dimensions of Well-Being in Kenya: Who and Where are the Poor*. Government Printer: Nairobi.

Republic of Kenya (2005). *Kenya Education Sector Support Programme 2005 – 2010*. Government Printer: Nairobi.

Republic of Kenya (2005). *Millennium Development Goals – Status Report for Kenya 2005*. Government Printer: Nairobi.

Republic of Kenya (2005). *Sessional Paper No. 1 of 2005 on a Policy Framework for Education, Training and Research*. Government Printer: Nairobi.

Republic of Kenya (1988). *J. Kamunge Report 1988*. Government Printer: Nairobi.

Republic of Kenya (1992). *Sessional Paper No. 2 of 1992 on Small Enterprise and Jua Kali Development in Kenya*. Government Printer: Nairobi.

Republic of Kenya (2004). *Republic of Kenya Investment Programme – for Economic Recovery Strategy for Wealth and Employment creation. (2003 – 2009)*. Government Printer: Nairobi.

Republic of Kenya (1995). *Committee on University Education in Kenya.* Government Printer: Nairobi.

Sachs J. (2005). *The End of Poverty: How We Can Make it Happen in Our Lifetime*. Penguin Books.

Salamon, L., and Sokolowski, W. (2004)*. Global Civil Society: Dimensions of the Nonprofit Sector, Vol Two*. Kumarian Press.

Sawyerr, A. (2004). *Challenges Facing African Universities. Selected Issues.* African Studies Review, Volume 47, No.1, pp 1- 59
www.aau.org/english/documents/asa-**challenges**figs.pdf

Sifuna, D. (1998). *The Governance of Kenyan Public Universities. Governance Research in Post-Compulsory Education*, Vol. 3, No. 2, 1998.

Stakeholders at the Coast (2005). *Memorandum for Establishment of a University at the Coast,* Nairobi.

Standa, E. (2000). *Vice-Chancellors Report on Causes of Riots and Disturbances in Public Universities*. Nairobi.

The Standard – *Campus Rover*, 8th December 2005

The Ford Foundation (2001). *Envisioning the African University of the Future A Report of a Retreat on Higher Education*. Durban.

UN Millennium Project (2005*). Investing in Development: A Practical Plan to Achieve the Millennium Development Goals. Overview*.

UNESCO (1996). *Report to the UNESCO of the International Commission on Education for the Twenty- first Century*: Paris.

UNESCO (2003). *Education for Sustainable Development*. UNESCO: Paris.

University of Nairobi (2005). *University of Nairobi Strategic Plan 2005 - 2010.* University of Nairobi Press: Nairobi.

Wesonga, D., Ngome, C., Ouma, D., and Wawire, V. (2003). *Report on Private Provision of Higher Education in Kenya: Analysis of Trends and Issues in Four Selected Universities*. Nairobi.

Western University of Science and Technology. (2005). *Western University College of Science and Technology Strategic Plan 2005 - 2010*. Western University College of Science and Technology: Kakamega.

World Bank. (2002*). Constructing Knowledge Societies: Challenges for Tertiary Education*. Washington, DC.

World Bank. (1988). *Education in Sub- Saharan Africa: Policies for Adjustment, Revitalization and Expansion*. Washington DC.

World Bank. (1992). *Universities in Africa: Strategies for Stabilization and Revitalization*. Washington DC.

World Bank (1997) *Revitalizing Universities in Africa*.   Strategies and Guidelines; Washington, DC

World Bank/UNESCO, (2000). "*Higher Education in Developing Countries. Peril or Promise*." Report of the Task Force on Higher Education and Society. World Bank, Washington, D.C.

Yarnell, Amanda (2006) "*India: Scientific Powercourse in the making,*" Chemical and Engineering news, March, 20, 2006. p 12 – 20.

Tilak, J. B. G. (2006)Global Trends in Funding Higher Education", Internet Higher Education, No. 42, 5 – 6.

Zakaria Fareed (2006) "*India Rising*" in Newsweek Magazine p 22- 34 (March 6 2006)

Zeleza, P. T. and A. Olukoshi. Eds. *African Universities in the 21st Century*, E Vol 1. Liberalization and Internationalization. 2004

SELECTED WEB-SITES

http://iej.cjb.net

http://home.hiroshima-u.ac.jp/cice/assie-lumumba7-1.pdf

http://iecj.cjb.net

www.aau.org/studyprogram/pdfiles/**abagi**.pdf

www.intech.unu.edu

www.aau.org/english/documents/asa-**challenges**figs.pdf

 www.iie.org/PDFs/Publications/report29.pdf

www.bepress.com/csae/paper90

www.worldbank.org/afr/teia/conf_0903/final.pdf.

www.iie.org/PDFs/Publications/report29.pdf

www.personal.psu.edu/faculty/

d/e/deh29/papers/ASHE_2002_**challenges**.pdf

www.aau.org/wghe/publications/ wghe_innovations_ref_univ.pdf

www.codesria.org/Links/ Publications/ad3_03/ntarangwi.pdf

ICE47/English/Natreps/reports/**kenya**.pdf

www.aau.org/studyprogram/pdfiles/**abagi**.pdf

www.aau.org/english/documents/asa-**challenges**figs.pdf

www.iie.org/PDFs/Publications/report29.pdf

APPENDIX I

A) BOARD MEMBERSHIP

Prof. Kabiru Kinyanjui	-	Chairman
Prof. Raphael Munavu	-	Member
Prof. Douglas Odhiambo	-	Member
Mr. Mohammed Nyaoga	-	Member
Mr. Julius Kipng'etich	-	Member
Amb. Solomon Karanja	-	Member
Dr. James A. Kulubi	-	Member
Ms. Betty Maina	-	Member
Dr. Jennifer Riria	-	Member
Mr. Tom Owuor	-	Member
Rev. Dr. Lawrence M. Njoroge	-	Member
Prof. Justin Irina	-	Secretary

B) BOARD TERMS OF REFERENCE

a) to review the statutes establishing the respective Public Universities, the subsidiary legislation as well as Universities Act. Cap 210B, and recommend any amendments it may find appropriate;

b) to review the objectives and operations of the Commission for Higher Education (CHE) and make recommendations with a view to improving its relationship with individual Universities;

c) to conduct a critical appraisal of teaching and research activities in all Public Universities;

d) to critically appraise the infrastructure available for teaching and research, including laboratories, libraries, documentation centres and other similar facilities and the sourcing and

management of the resources required to support teaching and research;

e) to critically appraise the welfare and discipline of academic staff of the Universities, including salaries and allowances;

f) to critically appraise the scope and distribution of administrative and support staff in Public Universities, including their welfare and discipline;

g) to appraise the criteria for appointment and promotion for both the academic and administrative staff;

h) to conduct a critical review of the procedure for appointment and the tenure of the Office of the Vice-Chancellors, Deputy Vice-Chancellors and Principals of Colleges;

i) to conduct a review of matters related to welfare and discipline of students;

j) to review the general trend in national development and make recommendations on the relationship between current academic programmes and projected needs for human capital in the private and public sectors; and

k) to make any other reviews, appraisals and recommendations as it may find to be consistent with the support of the objectives of University Education in Kenya or as the Chancellor may direct.

APPENDIX II

A) COMMITTEES OF THE BOARD

1. Steering Committee

Prof. Kabiru Kinyanjui   -   Chairman
Prof. Raphael Munavu
Rev. Dr. Lawrence Njoroge
Prof. Justin Irina

2. Quality Assurance

Prof. Raphael Munavu   -   Chairman
Prof. Kabiru Kinyanjui
Rev. Dr. Lawrence Njoroge
Dr. James Kulubi

3. Student Affairs

Mr. Julius Kipng'etich   -   Chairman
Rev. Dr. Lawrence Njoroge
Prof. Justin Irina

4. Staff Welfare

Amb. Solomon Karanja   -   Chairman
Dr. Jennifer Riria
Prof. Raphael Munavu

5. Relevance and Critical Skills

Mr. Tom Owuor   -   Chairman
Prof. Justin Irina

Prof. Raphael Munavu

Prof. Kabiru Kinyanjui

Eng. Meshack Kidenda *

Mr. Arthur Rateng *

Mr. Barrack Otieno *

6. Resource Mobilization

Prof. Kabiru Kinyanjui   -   Chairman

Prof. Justin Irina

Dr. Jennifer Riria

Ms. Betty Maina

Dr. Gituro Wainaina *

7. Legislation and Governance

Prof. Douglas Odhiambo -   Chairman

Prof. Patricia Kameri-Mbote *

Mr. Mohammed Nyaoga

Dr. James Kulubi

8. Access and Equity

Prof. Kabiru Kinyanjui   -   Chairman

Prof. Raphael Munavu

Rev.Dr. Lawrence Njoroge

Prof. Justin Irina

* Co-opted member of the Committee

B) MEMBERS OF THE SECRETARIAT

Name	Designation	Dates
Mr. Nicholas Kiyeng	Rapporteur	6/6/2005 to 31/8/2006
Mrs. Elizabeth Wafula	Rapporteur	6/6/2005 to 7/6/2006
Ms. Sylvane M. Chongwony	Rapporteur	7/7/2005 to 31/8/2006
Dr. Charles Ngome	Rapporteur	6/6/2005 to 30/8/2005
Mr. Jonai Mukungu	Auditor	12/9/2005 to 31/8/2006
Mr. Cornelius Sayi	Accountant	14/6/2005 to 31/8/2006
Mr. Patrick Shamalla	Executive Officer	26/5/2005 to 31/8/2006
Mr. Wilson Musyoki	Driver	2/2/2006 to 31/8/2006
Mr. Loise Mwari	Secretary	1/11/2004 to 6/6/2006
Mrs. Margaret Chesire	Driver	1/11/2004 to 6/6/2006
Ms. Pamela Sagala	Office Assistant	1/11/2004 to 6/6/2006
Ms. Catherine Mubichi	Secretary	1/11/ 2004 to 12/12/2005
Mr. Richard Mbeke	Driver	1/10/ 2005 to 16/1/2006
Mr Henry Rotino	Driver	6/6/2005 to 12/9/2005
Mr. Stephen Mwangi	Secretary	28/12/2005 to 31/8/2006

C) PERSONS WHO UNDERTOOK BRIEF ASSIGNMENTS FOR THE BOARD

Mr. Tony Nasirembe	-	Human Resource Consultant
Mr. Gregg Bekko	-	Human Resource Consultant
Ms. Adelaide Mbithi	-	Snr. Asst. Registrar, University of Nairobi
Mr. Gerishon Mbugua	-	College Registrar, University of Nairobi
Mr. Paul Kamau	-	Consultant
Mr. John K. Nderitu	-	Tutorial Fellow, Kenyatta University
Mr. Anthony Bojana	-	Editor
Mrs. Bena O. Okola	-	Secretary

APPENDIX III

METHODOLOGY

a)   Preliminaries

The Board discharged its mandate through an inclusive and self-validating process of gathering and analyzing data and evidence from hearings and written memoranda. Its Terms of Reference (TORs) were initially interpreted in the context of the broad public and government expectations and anticipated outcomes. The Board engaged all the principal stakeholders of higher education in interpreting the TORs in order to entrench broad partnership and ownership of the inspection process.

The Board's view was that the anticipated outcomes of its work would give birth to desirable transformation of the higher education sector in Kenya. It was therefore agreed initially that all stakeholders be engaged during the process in order to provide space for possible mainstreaming of any essential and critical any recommendations without delay.

The Board established seven technical committees (i.e. legislation and governance; quality assurance; relevance and critical skills; mobilization and resources for higher education; staff welfare and terms of service; student affairs; and access and equity) that were charged with the responsibility of critically appraising the areas assigned and reporting back to the Board.

b)   Meetings With Stakeholders

Office facilities were identified and a Secretariat assembled at the Kenya Wildlife Services (KWS) Headquarters at Langata, Nairobi. The Board held a series of meetings at the KWS Secretariat to receive verbal and written briefs and submissions from the Chancellors, Chairpersons of University Councils and Vice-Chancellors of public and private universities, employees union (UASU, KUDHEIHA and UNTENSU) and representatives of students in public and private universities.   The Board also received evidence on the

experiences and strategic visions of HELB and CHE from their councils and managements.

c)   Institutional Visits

The initial presentations at KWS were expanded by site visitations to all public universities, seven private universities and six middle level colleges.   Three research institutes and parastatals were also visited. During the visits to education institutions, the university management, student leaders, employee unions, parents and other staff were given further opportunity to address the key Terms of Reference of the Board and raise any other relevant issues on higher education in Kenya.

The essential role of research institutions in strengthening university education and research in Kenya was appreciated by the Board during the visits to the three national research institutes. The existing and potential capacities of these research institutions to serve as partners in higher education was revealed during the Board's inspection of the institutes' facilities.

In compiling its report, the Board studied and analysed   memoranda and views received from all Kenyans; previous education reports and sessional papers; university calendars; current university strategic plans; and good practices on higher education in other parts of the world.

d)   Institutions Visited
Public Universities

1. Athi River Institutte of Technology
2. Egerton University (Njoro)
3. Directorate of Industrial Training (Nairobi)
4. Jomo Kenyatta University of Agriculture and Technology (Juja)
5. Kenyatta University (Nairobi)
6. Maseno University (Kisumu)
7. Moi University (Eldoret)
8. University of Nairobi (Nairobi)

9. Western University College of Science and Technology (Kakamega)

Private Universities

1. Africa Nazarene University (Nairobi)

2. Aga Khan University (Nairobi)

3. Catholic University of Eastern Africa (Nairobi)

4. Daystar University (Nairobi)

5. Kabarak University (Nakuru)

6. Kenya Methodist University (Meru)

7. Strathmore University (Nairobi)

8. United States International University (Nairobi)

9. University of Eastern Africa, Baraton (Eldoret)

Middle Level Colleges

1. Bandari College (Mombasa)

2. Garissa Teachers College (Garissa)

3. Kenya Polytechnic (Nairobi)

4. Kenya Science Teachers College (Nairobi)

5. Kenya Technical Teachers College (Nairobi)

6. Kenya Textiles Training Institute (Nairobi)

7. Kilifi Institute of Agriculture (Kilifi)

8. Mombasa Polytechnic (Mombasa)

9. National Industrial Vocational Training Centre (Nairobi)

10. Technology Development Centre (Nairobi)

Research Institutions

1. Kenya Agriculture Research Institute, KARI (Nairobi)

2. Kenya Marine and Fisheries Research Institute, KEMFRI (Mombasa)

3. Kenya Medical Research Institute, KEMRI (Nairobi)

Government Ministries and Parastatals

1. Ministry of Education, Science and Technology

2. Ministry of Finance

3. Ministry of Health

4. Kenya Revenue Authority

e)   Public Hearings

The Board received views from Kenyans of all walks of life including farmers, businessmen, parents, teachers, leaders and students who attended full-day public hearings which were held in Eldoret, Embu, Garissa, Kakamega, Kisumu, Mombasa, Nakuru and Nyeri.   During these provincial visits, the Board was facilitated logistically by the PC, PEO, DCs and DEOs.

In order to mainstream the Board's findings and recommendations, several stakeholder workshops were held for Chancellors, Vice-Chancellors and other stakeholders.   The Board also submitted three progress/interim reports and shared its interim findings at various time frames with the Ministry of Education Science and Technology and University Vice-Chancellors.

f)   Commissioned Studies

In order to have a detailed and in-depth assessment of the current status and quality of teaching and research programmes in the universities, the Board commissioned   selected   experts to carry out analyses and generate quality indicators on Engineering, Open and Distance Learning, Agricultural Programmes, Science, ICT, Libraries and Bookshops, Education and Medical Training Programmes in universities.   The Board also commissioned in-depth studies on student welfare; income generating activities in UoN, JKUAT and Moi; and operations and competencies at CHE.   The lessons learned from the World Bank University Investment Project (UIP) 1994 to 1998; staff conduct welfare, responsibilities and motivation; and students with special needs were also investigated by experts on behalf of the Board.

A schedule of these commissioned is given in the following **Appendix IV.**

APPENDIX IV

COMMISSIONED REPORTS

Angalia N. J. F. (Ms): *Academic Programmes of Outreach Campuses of Public Universities & Data on Kenyan Students Studying Abroad.*

Barasa, J. N. (Ms)*: Staff Motivation.*

Bunyi W. G. (Dr): *Gender Equity in Higher Education in Kenya*.

Gichaga F.J. (Prof) and Obuon B. (Ms*): University Staff Conduct and Responsibility.*

Kaane L.H. (Prof) and Kioni N. (Prof*): Improving the Quality of Engineering Education in Kenyan Public Universities.*

Khwa-Otsyula O. B. (Prof), Ojwang J. P. (Prof) and Makawiti D. W. (Prof): *Medical/Health Science Programmes in Local Universities.*

Kimani J. (Prof*): Income Generating Activities in the University of Nairobi.*

Lenga F. K. (Prof) and Kimenju W. J. (Dr): *Agriculture Programmes in Public Universities.*

Mberia M. J. (Mr): *Staff Competencies and Functions for the Commission for Higher Education.*

Mbwesa J. (Dr): *Distance, Open and e-Learning Programmes in Public Universities*.

Monda A. (Dr.): *Stalled and Ongoing Projects at Public Universities*.

Muriuki G. (Prof), Sindabi M. A. (Prof), Waihenya R. (Dr) and Kang'ori P. (Mr.): *Student Affairs.*

Ng'ang'a M. J. (Mr), Agalo J. (Dr) and Liyai A. H. (Mr): *University Libraries and Bookshops.*

Ogada T. P.M. (Prof): *Income Generating Activities in Moi University*.

Ogula A. P. (Prof) and Olanga L. W. (Dr): *Evaluation of Programmes of Faculties of Education in Local Universities in Kenya.*

Otiende E. J. (Prof): *Students With Special Needs; Issues of Social Class, Access to Higher Education; and Brain Drain Issues in Kenyan Public Universities.*

Rodrigues J. A. (Prof), Wafula M. J. (Mr) and Laloui A. (Mr): *Information and Communication Technology Status in Higher Education Institutions in Kenya.*

Shiundu P.M. (Prof*): Science Programmes in Public Universities*.

Thairu H.M. (Prof)*: Income Generating Activities in Jomo Kenyatta University of Agriculture and Technology.*

Wandiga S.O. (Prof*): Universities Investment Project No.-2309-KE: Experience and Lessons Learnt.*

APPENDIX V

STAKEHOLDERS WHO THE BOARD MET

a)   Chancellors of Public Universities

Dr. J. B. Wanjui	-	University of Nairobi
Prof. B. A. Ogot	-	Moi University
Mr. Harris Mule	-	Kenyatta University
Amb. B. Kiplagat	-	Egerton University
Prof. Ali A. Mazrui -	-	Jomo Kenyatta University of Agriculture and Technology
Dr. W. Wamalwa	-	Maseno University

b)   Ministry of Education Science and Technology (MOEST) Officials

Hon. Dr. Noah Wekesa	-	Ag. Minister for Education
Hon. Prof. George Saitoti	-	Former, Min. for Education, Science and Technology
Hon. Dr. Kilemi Mwiria	-	Assistant Min. for Education, Science and Technology
Hon. Beth Mugo	-	Assistant Min. for Education, Science and Technology
Prof. Karega Mutahi	-	Permanent Secretary
Prof. George Godia	-	Education Secretary
Mr. David Siele	-	Director of Higher Education
Mrs. Agnes Sila	-	Senior Deputy Director of Education
Omundo Ogong'a	-	Assistant Director of Education

c)   Ministry of Finance Officials

Mr. Njeru Kirira	-	Financial Secretary
Mr. Kubai Khasiani	-	Deputy Director Budget
Mr. Robert K. Nyaga	-	Economist, EAD

Mr. Wanyambura Mwambia -		Deputy Secretary
Mr. S. N. Macharia	-	Senior Principal Finance Officer
Ms. Mary N. Nguli	-	Economist, EAD

d)   Ministry of Health Officials

Mr. Zakary Ogongo	-	Permanent Secretary, Ministry of Health
Dr. James Nyikal	-	Director of Medical Services
Dr. David M. Kiima	-	Director of Medical Health
Dr. Francis Kimani Mwihia -		Senior Deputy Director of Medical Services
Mr. Kipkerich Koskei	-	Government Chemist
Dr. A. O. Misore	-	Head PPHS
Ms. Sophia M. Ngugi	-	Education Officer NCK
Mr. Stephen Cheruiyot	-	Economist/ Planning Officer MOH
Mr. Daniel Yumbya	-	E. O. Medical Board
Ms. Tabitha W. Mwangi	-	DON/MOH
Dr. T. Gichura	-	H/RESPS
A. H. Mumayo	-	ADHRD
Dr. Daniel Yumleja	-	Dentist Medical Practitioners and Dentist Board
Mr. Alfred Mogere	-	Under Secretary Administration Chairperson
Mr. Kimani	-	Department of Planning Economist
Mr. A. H. Monayo	-	Head Human Resources Development
Mr. Khasavalo	-	Personnel Officer
Mr. Labaan Mbobu	-	Chief Clinical Officer
Mrs. Rose Kuria	-	Clinical Nursing Officer
Dr. K. Chesang	-	DDMS
Dr. J. E. Bwonya	-	SDDMS
Dr.Tom Mboya Okeyo	-	

e)   Kenya Revenue Authority Officials

| Mr. M. G. Waweru | - | Commissioner General |
| Mr. Mumo Matemu | - | D/Commissioner, Support Services |

Mr. Michel A. Onyura   -   SDC–HR

Mr. Creck Buyonge   -   SAC Operations

Ms. Esther Pambali   -   SAC–R &CP

f)   Commission for Higher Education

Prof. Kihumbu Thairu	-	Chairman
Prof. C. M. Kiamba	-	Secretary
Mr. Kubai Khasiani	-	Commissioner
Prof. Okoth Ogendo	-	Commissioner
Prof. Freida Brown	-	Commissioner
Prof. Lucia Omondi	-	Commissioner
Prof. George Magoha	-	Commissioner
Mr. Geoffery Orao Osuru	-	Commissioner
Ms. Njoki Kahiga	-	Commissioner
Prof. Alfred M. Mutema	-	Commissioner
Prof. Leah T. Marangu	-	Commissioner
Prof. Festus Kaberia	-	Deputy Secretary
Prof. Wilson Kipngeno	-	Deputy Secretary
Mr. Maurice Onyango	-	Secretariat
Mr. Isaac M. Kavu	-	Secretariat
Mr. Ndoria Ngari	-	Administrative Officer
Mr. Eliza Chege	-	Public Relations Officer
Mr. John M. Murage	-	Senior Assistant Secretary (Library)
Dr. Rispa A. Odongo	-	Senior Assistant Secretary
Mr. George C. Njine	-	Senior Assistant Secretary
Mr. Joel M. Mberia	-	Senior Assistant Secretary
Ms. Josephine Njoroge	-	Legal Officer

g)   Egerton University

Amb. S. Bullut	-	Chairman of Council
Prof. J. K. Tuitoek	-	Vice-Chancellor
Prof. E. K. Maritim	-	Former Vice-Chancellor

Prof. E. M. Wathuta	-	Deputy Vice-Chancellor (Academic)
Prof. S. A. Abdulrazak	-	Deputy Vice-Chancellor (Research)
Prof. A. M. Sindabi	-	Principal, Laikipia Campus
Prof. J. M. Mathooko	-	Principal, Kisii Campus
Dr. T. K. Serem	-	Ag. Registrar Administration
Mr. J. M. Nguri	-	Finance Officer
Prof. N. Kathuri	-	Registrar AA
Mr George Kira	-	Shopsteward
Mr Andrew A. Maoga	-	Chairman (KUDHEIHA)
Dr. Theuri M. M	-	Dean, Faculty of Arts and Social Sciences
Prof. Francis N. Wegulo	-	Ag. Dean, Faculty of Environmental Studies
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Dr. Joseph O. Otieno	-	Ag. COD, Geography
Dr. Edward K. Tanui	-	Ag. COD, Curriculum and Instruction
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Mr. J. A. Ondu Nyangayo	-	S.A.R BUGS
Mr. Somoni J.B.M. M.	-	Faculty Rep of Commerce KCC
Mr. J. O. Onyango	-	COD Bam Kisii Campus College
Prof. John G. Mwangi	-	Lecturer
Dr. F. U. Ngesu	-	Coordinator CROOL
Dr. J. K. Kibett	-	COD, Agricultural Education
Dr. Fred N. Keraro	-	Ag. Director CDE
Dr. B. N. Githua	-	Dean FEDHURE
Prof. R. S. Pathak	-	Dept of Agronomy
Dr. B. K. Kitur	-	COD, Soil Science
Dr. E. K. Bor	-	Ag. COD, Sociology and Anthropology
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Dr. Robert S. Shivairo	-	Chairman, UASU
Dr. Muga K'olale	-	Secretary General, UASU
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Mr Caleb Nzioki	-	Student Union
Mr. Johnson M. kanandu	-	Student Union
Mr. Francis Mwangi	-	Student Union
Samuel maina	-	Student Union
Kinyua John	-	Student Union
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h) Jomo Kenyatta University of Agriculture and Technology

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Dr. Waweru Mwangi	-	Director, ICSIT
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Dr. Cecilia Mwathi	-	Sec. General, UASU
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Mr. Otieno Fredick O.	-	Assistant Secretary General, UASU
Dr. Teresa Akenga	-	Treasurer, UASU
Mr. Nickson Chege	-	Secretary General, UNTESU

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Dr. P. G. Home	-	COD, BEED
Prof. R. Odhiambo	-	Dean, Faculty of Science
Prof. L. S. Wamocho	-	Dean of Students
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Dr. J. K. Kwanza	-	Director, CEP
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Prof. R. N. Mutuku	-	Dean, Faculty of Engineering
Mr. Mwangi K. Muthua	-	Technician
Mr. James Magoka	-	Snr. Technologist
Mr. Nickson Chege	-	Snr. Technologist
Mr. Isaac W. Ndiritu	-	Snr. Technologist
Kinundu W. N.	-	Snr. Technologist
Justus M. D'oketch	-	Snr. Technologist
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Mr. Stephen Mboroki	-	Chairman, KUDHEIHA
Mr. Henry Wanjui	-	KUSA, Official
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Dr. Francis C. Indoshi	-	Chairman Ed, Comm. Tech

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Mr.Charles N. O. Kwach	-	Ag. D/R Academic Affairs
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Dr. B. A. Ondigi	-	Education Management and Foundation
Mr. Philemon O. Odongo	-	Ag. Librarian
Mr. M. O. Onyango	-	Deputy Registrar (Admin)
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Mr. Ayiro P. Laban	-	Council member
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Prof. K. Ole Karei	-	Chief Academic Officer
Dr. John Lonyangapuo	-	Principal, Chepkoilel Campus
Prof. Kembo Sure	-	Representative SASS
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Mr. K. K. Kamet	-	HOD Microbiology
Prof. H. S. Nyandieka	-	HOD Biochemistry
Dr. P. K. Chepkuto	-	Director PSSP
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Mr. P. K. Maritim	-	Principal Administrative Officer (RET)
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Mr. Fred S. M. Omuya	-	Administrative Officer Senate Secretariat
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Dr. A. N. Mayaka	-	Dean, Faculty of Technology
Mr. D. Khamadi	-	Ag. Librarian
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Mrs. C. L. Irina	-	Principal Administrative Officer (Planning)
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Dr. M. E. Omunyiu	-	HOD Horticulture. Rep Agriculture
Dr. Lusweti Kituyi	-	Dept of Chemistry
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Prof. P. K. Ndalut	-	Chemistry Department
Dr. (Fr) Costa Munga	-	Assistant Secretary, UASU
Dr. S. M. Mulambula	-	HOD, Education Psychology

Prof. Ruth N. Otunga	-	HOD, Ed. Adm. Plan
Dr. H. M. N. Kodero	-	Dean, Faculty of Education
Prof. Joseph B. Ojiambo	-	Faculty of Information Sciences
Dr. J. A. Mumia	-	CMO Health Services
Mr. Onkware A. Osoro	-	Teacher
P. U. Maritim	-	Principal Administrative Officer (RET)
Mr. M. T. Chepkwony	-	Administration
Dr. E. N. Oyondi	-	Lecturer
Mr. Fred S. Omunya	-	Administration Officer
Prof. D. K. Serem	-	Lecturer
Dr. Chris Mukwa	-	Senior Lecturer
Mr. David Menjo	-	Senior Administration Officer (Planning)
L. M. Reson	-	Administrative Assistant (Chief Academic Officer)
Dr. John Simiyu	-	HOD, Technology Education
Dr. Peter K. Torongey	-	Dean Faculty of Science
Dr. Osumba Ogeta	-	Secretart General UASU
Mr. Jack W. Okumu Abok	-	Organizing Secretary UASU
Prof. Lakare Etiegni	-.	
Karani Nicholas	-	Chepkoilel campus (Student)
Bernard K. Yego	-	Chepkoilel campus (Student)
Wangalwa H. Hassan	-	Moi University (Student)
Murule Chief	-	Moi University (Student)

l)   University of Nairobi

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Prof. Peter Mbithi	-	Deputy Vice-Chancellor (A&F)
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Prof. I. M. Mbeche	-	Principal CHSS
Prof. P. W. N. Kanyari	-	Ag. Principal CAVS
Rev. Dr. D. Wamugunda	-	Dean of Students
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Mr. Justus Gitari Mragwa	-	Technologist
Naftali Arodi Oyugi	-	Technologist
Mr. Maul F. S. Otundo	-	Admin Assistant
Ms. Rebecca W. Ngundo	-	Legal Officer
Mr. Sammy K. Kioko	-	Personnel
Prof. G. E. M. Ogutu	-	Parent
Prof. J. O. Midiwo	-	UASU
Dr. Daniel W. Onyango	-	UASU
Dr. Charles Namachancha-		UASU
Dr. Mahalla O. Odongo	-	UASU Org. Secretary (UoN)
Prof. John H. Nderitu	-	National Chairman UASU
Dr. Samuel Nyandebo	-	Chairman (UoN)
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Prof. Robert A. Obudho	-	Alumni Vice Chairman
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Mr. B. D. Njuguna	-	Alumni Administrator
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Mr. Daniel G. Kimani	-	KUDHEIHA Shopsteward
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m) Western University College of Science and Technology

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Prof. Asenath Sigot	-	Deputy Principal
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Mr. David M. Watimah	-	Secretary, UASU
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Wasula Okae	-	Chairman, UTENSU
Mr. Fred Chume	-	WUCST
Dr. S. N. Nutsotso	-	COD, CIT
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Masinde G. W.	-	Student (CDMHA)
Ms. Serah Welime	-	Academic Division
Mr. Donald Walucho	-	Bookshop
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Dr. J. K. Kiplagat	-	Dean, Faculty of Science and Engineering

Prof. Robert J. Akello	-	ECE Department
Mr. Stanely Omuterema O.	-	Lecturer Director (Ag) CDMHA
Prof. Ezekiel M Kasina	-	Director PSSP
Mr. G. G. Shibanda	-	Deputy Librarian
Mr. D. Okanga	-	Deputy Instructor
Magero V. O	-	Mathematics Department
Mr. Bob Mbori	-	Lecturer Language and literature
Dr. Ipara Odeo	-	Ag. Director SOLACE
F. C. Nyogesa	-	Lecturer ECE
F. N. Chuhe	-	Ag. Director
Mr. Victor Nambani	-	Chairman, KUDHEIHA
Kesesi Sichangi	-	Secretary, KUDHEIHA
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Mr. Stephen Buluma	-	Organizing Secretary UASU
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Mr. Jairus Odewa	-	Technician
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Mr. Oseno Ben	-	Accounts Assistant
Ms. Judy Mulusa	-	Lecturer
Mr. Wilson Serem	-	Assistant Lecturer
Mr. Odhiambo Obindo	-	Assistant Lecturer
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Mr. Carlos Kaoko	-	Accounts Assistant
Mr. Moturi P. Asati	-	CDMHA (Student)
Manude G. W.	-	CDMHA (Student)

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Mr. Paul King'ori	-	Dean of Students
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Mr. George Athoye	-	I.T Manager
Mr. Michael C. Vancant	-	Dept of Religion
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Ms. Agnes Kariungi	-	

o)   Africa Virtual University

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Eliot Pence	-	Program Asst Intern Rural Facility
Jize Yurray	-	Program Officer, ODCL Initiative
Mr. Emmanuel Otim	-	Education Specialist APDM
Bizimana Enosh	-	Education Specialist APDM
Mr. Nicolas Rippon	-	Education Specialist APDM
Ms. Catherine Wangeci K.	-	Education Specialist Education Program
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Mr. Sagie Pillary	-	Regional CEO Aga Khan University Hospital
Dr. Mustaf	-	PGM
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Dr Andrew Amata	-	Anaestheses
Prof. Peter J. Ojwang	-	Chair---Pathology
Ms. Symprose Ouma	-	University Librarian
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Mr. Joseph Mburu	-	KT Officer
Ms. Judy Ogana	-	
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q)   Catholic University of Eastern Africa

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Fr. Maurice Kisenyi	-	Librarian
Gathogo K. Thuo	-	Dean, Faculty of Science
Prof. Juvenalis Baitu		
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Dr. Stephen Nyambegera	-	Dean, Faculty of Social Sciences
Mr. David Thuku	-	Dean of Students
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Dr. Chip kingsburry	-	Coordinator ETL
Rev. Joseph Mbunga	-	University Chaplain
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Mrs. Grace Kabunge	-	Coordinator, MBA
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Mr. Paul Mbutu	-	Coordinator, Christian Ministry
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Mrs. Charity Mutua	-	Ag. Human Resources Manager
Ms. Mary Kizito	-	Head of Department of Communication
Ms. Mary Maguti	-	Head of Community Development Department
Ms. Purity Kiambi	-	Chair/lecturer Humanities
Ms. Ruth Imbenya	-	Lecturer Community Development
Ms. Mary Mogute	-	Chair/Lecturer, Community Development
Ms. M. W. Kiarie-Makara	-	Chair/Lecturer, Science Department
Mr. Peter K. Ngure	-	Chair/Lecturer, Pre-University
Ms. Serah Akelola	-	Chair/Lecturer, Commerce
Mr. Omondi Esamwata	-	Lecturer, Community Development
Ms. Alice Mutua	-	Lecturer, Community Development
Ms. Jane Kositany	-	Lecturer, Community Development
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t)   Kenya Methodist University

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Mr. Kaburu M'ribu	-	Agriculture and Natural Resources
Mr. Parnwell Gitongah	-	Planning
Mr. Gitonga Mwambia	-	Administration
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Yema Luhahi	-	Dept. of Nursing Science
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C. Moywaywa	-	Theology
Muturi A. M.	-	Business Administration

Mr. John M. Muchiri	-	Applied Biology
Githaiga J. M.	-	Education and Counseling
Mr. Kaburu Mribu	-	Agriculture and Natural Resources
H. Mwaniki	-	Academic Registry
S. Thuranira	-	Education and Counseling
Jenu J.	-	Mathematics Computer Science
Cina J.	-	Mathematics Computer Science
J. M. Karanja	-	Theology
Ms. Hellen N. Mugambi	-	Business Administrator
Mr. Samuel Mwachiro	-	Business Administrator
F. Njehu Kiongera	-	Business Administrator
Dr. Omboi Bernard	-	Business Administrator
Mr. Christopher Mutembei	-	Business Administrator
Ms. Lucy M. Gachamba	-	Business Administrator
Mr. John M. Muchiri	-	Applied Biology
Ms. Kambo Ruth	-	Education and Counseling
Mr. James T. Kubai	-	Education Counseling
Mr. Charles Muyweywe	-	Theology
Yema Luhahi	-	Nursing Science
Ms. Elizabeth Kiriinya	-	Nursing
Mr. Peter N. Kailemia	-	Nursing
Mr. Kinuu M. Ibutu	-	Education and Counseling
Mr. Eric Mwenda Gitonga	-	Education and Counseling
Mr. Joseph T. W. Lukorito	-	Education and Counseling
Lahi Luhahi	-	Mathematics Department
Mr. Andrew M. Kovuto	-	Theology Lecturer
Mr. Ken Mugambi	-	Business Administrator
Ms. Eva K. Munene	-	Education and Counseling
Ms. Edith K. Gituma	-	Education and Counseling
Ms. Judith M. Ikiara	-	Assistant Accountant
Ms. Doreen Mukiri Diki	-	Administrative Assistant
Ms. Christine Makena	-	Shorthand Typist
Mr. Morris Mukuta	-	Administrative Officer
Mr. Charles Kabwi	-	Library Assistant

Ms. Patricia C. Kisenge	-	Assistant Librarian
J. K. Kuria	-	Maintenance Officer
C. M. Mbari	-	Personnel Officer
Mr. David N. Maranga	-	Catering Officer
Ms. Pauline Kiende	-	Library Assistant
Ms. Sella Mutuma	-	Copy Typist
Mr. Bernard Mwasi	-	Caretaker
Ms. Violet Kwende	-	Personnel Secretary
Ms. Irene Nkatho	-	Clinic Nurse
Ephantus Mworia	-	Accounts Assistant
Ms. Catherine Murithi	-	Library Attendant
Ms. Susan Karwitha	-	Sub-Coordinator
Ms. Rosemary N. Murithi	-	Shorthand Typist
Mr. Danson Nyaga	-	Maintenance Work
Koome Mmpwii	-	Grounds
Ms. Judith M. Njue	-	DIM Coordinator
Mr. Kioho Joseph	-	Graded Artisan
Mr. Samson Mutua	-	Plumber Artisan
Mr. Silas Kaumbatu	-	Janitor
Mr. Geoffrey K. Chirchir	-	Senior Clerical Officer
Mr. Julius Kirima	-	Grounds
Ms. Jackylline Kendi	-	Shorthand Typist
Mr. Ben Kariuki	-	Systems Administrator
Leonmorah Choge	-	Chairperson
Rev. Japhet Kaberia	-	Spiritual Representative
Mr. Kaberia Isaac Kubai	-	Former VIU Chairperson
Mr. Francis Ndungu Njihia	-	Committee Member
Mr. Erugura Mwiti Godfery	-	Vice Chairperson
Rev. Lilly W. Njue	-	Spiritual Representative
Karichia R. Mbaabu	-	Committee Member
Justria Mbugua	-	
Mr. David K. Mugambi	-	

u)   Strathmore University

Prof. John Odhiambo	-	Vice-Chancellor
Prof. David Sperling	-	Deputy Vice-Chancellor
Dr. Florence Oloo	-	Deputy Vice-Chancellor
Mr. Charles Sotz	-	University Secretary
Mr. Clement Nyandiere	-	Dean of Faculty (IT)
Freddie Acosta	-	Programmes Coordinator
Marcos Migori	-	Human Resources Director
Mr. David Wangombe	-	Programes Coordinator
Elizabeth Ngaru	-	Academic Officer
Patrick Shabaya	-	Academic Registrar
Fidelis Katonga	-	University Librarian
Mr. Robert Nyakundi	-	Support Staff
Mr. Martin Mundia	-	Advancement and External Relations
Margaret Roche	-	Institute of Humanities
Mr. Paul Ochieng	-	Dean of Students
Mr. Erastus Njuki	-	Interim Student Leader
Ms. Martha Njeri Kimani	-	Interim Student Leader

v)   United States International University

Prof. Freida A. Brown	-	Vice-Chancellor
Ms. Rita Asunda	-	Deputy Vice-Chancellor Student Affairs
Prof. Mathew Buyu	-	Deputy Vice-Chancellor Academic Affairs
Prof. Joyce Cacho	-	Deputy Vice-Chancellor (F& A)
Prof. Erick Outa	-	Deputy Vice-Chancellor (F & A)
Prof. Sophie Kaame	-	University Librarian
Prof. Macharia Munene		

w)   Higher Education Loans Board, HELB

Prof. J. Kimura	-	Chairman of the Board
Mr. Benjamin C. Cheboi	-	Secretary of the Board
Mr. Halake Dido	-	Deputy Secretary

Ms. Rose Waruinge   -   Board Member

Mr. Kipngetich A. Bett   -   Board Member

Prof. Freida Brown   -   Board Member

Mr. Omindo E. Ongonga   -   Representative of the PS MoEST

x)   Kenya Medical Research Institute (KEMRI)

Dr. Davy Koech   -   Director

y)   Kenya Agricultural Research Institute (KARI)

Dr. Romano M. Kiome   -   Former Director

Ms. Lilian W. Kimani   -   AD HRD

S. M. Ndei   -   CAO

L. W. Wamae   -   AD AH

T. K. Njagi   -   DDFA

Mr. James B. W. Matata   -   AD (ARF)

z)   Kenya Marine and Fisheries Research Institute (KEMFRI)

Dr. Renison K. Ruwa   -   Deputy Director

Mr. Edward N. Kimani   -   Research Officer I

Mr. Peter M. Oduor Odete   -   Research Officer I

Mr. James M. Mwaluma   -   Research Officer I

M. M. Nguli   -   Senior Research Officer

C. Hamisi   -   Research Officer I

Mr. Stephen N. Mwangi   -   AD (M&C)

Mr. Harrison Onganda   -   Research Officer I

aa)   Garissa Teachers Training College

Mr. Aden Muktar   -   Deputy Principal

Mr. Abdikadir Barre Musa   -   Senior Lecturer Social Studies/ Science

Mr. Thuranira Joseph   -   HOD Social Sciences

Mr. Mohamed Adan Ali   -   Subject Head P.E

Mr. Mwnyasia Josiah M.	-	Education Dept
Mr. Mohamed Nassir Haret	-	Mathematics Tutor
Mr. Hassan Dubai	-	Education Department
Gari Mwangovya	-	Languages
Mr. Mbaya Frank	-	Christian Religious Education
Mr. Yussuf Omondi	-	Education
Ms. Alice Maigwa	-	D/DO H/Science
Mr. Kirigia Gerald K.	-	HOD Mathematics
Mr. Noor Ali Ibrahim	-	DOC GTT College
Mr. Abdi S. Osman	-	PDE's Office
Mr. Mwaniki S. M.	-	Science Department
Mr. Maro D. Badiribu	-	HOD Languages
Mr. Nyomoo B. Kinoti	-	Science Department
Mr. Jeremiah K. Nyaga	-	HOD Creative Arts

bb)   Kenya Polytechnic

Mr. G. Muthwale	-	Chief Principal
Mr. Tom Josiah	-	Senior Personnel Officer
Mr. Jamleck M. Kanambiu	-	Finance Officer
E. W. Githinji	-	Staff Development Coordinator
Mr. Moses Wamalwa	-	Examinations Officer
Mr. Andrew N. Musungu	-	Public Relations Officer
Mrs. Joyce Mugenya	-	Chief Librarian
Mr. James M. Mbuthi	-	HoD, Electrical
Mrs. E. Makunyi	-	HoD, IM
Mrs P. Bore	-	HoD, Applied Sciences
D. A. N. Mbaabu	-	HoD, Health Sciences
Mr. Bernard Wambugu	-	HoD, Electrical Engineering
Munnie Kamande	-	
Mrs. Mary Clare Kidenda	-	HoD, Graphic Arts
Ms. Sarah W. Kibugi	-	HoD, ILS
Ms. Beatrice A. Chuka	-	HoD, SAM
Mr. Francis M. Mwangi	-	HoD, BCE

Mr. David N. Maina	-	Works Committee
Mr. Stanley Irungu	-	Works Committee
David M Nyasinga	-	Chairman, Works Committee
Mr. Simon Wafula Nganga	-	Works Committee
Mr. Julius O. Mosoti	-	Works Committee
Mr. Wycliffe Nyakundi	-	Shopsteward Electrical
Ogutu D. Owira	-	Computer Studies
Ms. Dorcas Daina Mutemi	-	Enterprise Development Centre
Ms. Beatrice W. Chiuri	-	HoD, Business Studies
Mr. Derrick H. O. Osiro	-	HoD, Policy
Mr. Michael Okilate	-	Chairman KPSU
Mr. Nicodemus Agari	-	Vice Chairman KPSU
Mr. Lenard Manoti	-	Treasurer KPSU
Mr. Otieno George	-	Assistant Secretary General KPSU
Mr. John C. M. Mwangi	-	KPSA

cc)   Mombasa Polytechnic

Mr. C. T. Akumu Owuor	-	Chief Principal
Mr. Juma A. Mdigo	-	Deputy Principal
Mr. Anthony M. Gekonge	-	Registrar
Mr. J. Kibamba	-	Deputy Registrar
Mr. Charles Majani	-	Examination Officer
Mr. Geoffrey M. Muluyha	-	Dean of Students
Mr. Jackton Mugalavai	-	Sports Officer
Mr, David Gatimu	-	Liason Officer
Mr. Lawrence Mukhongo	-	Kenet Manager
Mr. Paxton Ochola	-	Applied Sciences
Ms. Bana Wahida	-	Business Studies
Mr. Joseph K. Kario	-	Building and Civil Engineering
Mr. Khamis Arif	-	Computing and Information
Mr. Fredrick O. Otieno	-	Electrical and Electronics Engineering
Mr. Stephen Mwangi	-	Medical Engineering
Ms. Margret Mbugua	-	Mechanical and Automotive Engineering

Mr. Daniel Mwaringa	-	Media
Mr. Dickson Omolo	-	Enterprise Development Centre
Mr. M. Memon	-	Management Information System
Mr. Pius Barasa Odenyo	-	Chairman Student Union
Mr. Andrew Kimanthi	-	Vice Chairman Student Union
Mr. Perez Majani	-	Secretary General Student Union
Mr. Mohamud Abdi	-	Deputy Secretary General Student Union
Mr. Francis Chacha Mwita	-	Organising Scretary Student Union
Ms. Kilel Chepkorir	-	Treasurer Student Union
Ms. Agnes Nasimiyu	-	Assistant Treasurer Student Union

dd)   Kenya Science Teachers College, KSTC

Mr. P. W. Kibui	-	Former Principal KSTC
J. A. Ondera	-	Deputy Principal KSTC
Ms. Alice Masimba	-	Registrar
M. Abene Ojiambo	-	HOD, English
Mr. G. Mzee	-	HOD, P.E
Mr. Joel Sigei	-	HOD, Chemistry
Mr. Charles W. Mahugu	-	DS
Eunice Ringera	-	ES HOD
Mr. Benjamin K. Munguti	-	Maths HOD
Ms. Mary Babu	-	HOD Biology
M. Lubabali	-	HOD Physics
J. K. Mwangi	-	HOD Ind, ED.
R. W. Mbaya	-	HOD Education
D. O. Nyamwaya	-	Deputy Registrar
S. K. Rwigi	-	Tutors Welfare
Mr. James I. Kanya		

ee)   Kenya Technical Training College, KTTC

Mr. Charles I. Imbali	-	Chief Principal
Mr. Francis Munyithya	-	Deputy Principal

Mr. Hassan Sheikh Ali	-	Registrar
Ms. Harriet W. Kamau	-	HOD(Library)
S.N. Makori	-	HOD (EE)
O. R. Onyango	-	HOD Mathematics/Physics
F. M. Rwanda	-	HOD Building/Civil Eng.
Mr. Njoroge P. Mbogo	-	D/HOD Computer studies
Mrs M N. Muga	-	HOD Enterprise
M. N. Kamau	-	HOD Business Education
Nyaga Mwaniki	-	HOD ICT inter and OL
Elisha R. Oballe	-	HOD Mechanical
Ms. Tabitha Waweru	-	D/OD IT Department
Mr. Samuel M Chege	-	Dean of Students

ff)   Kilifi Institute of Agriculture

Mr. J. Sulubu	-	Chief Principal
Ms. Dorothy Mwasambu	-	AAD
Mr. Ronald Juma	-	LPO
Ms. Rachel Mwambi	-	AAOII
Mr. Alex T. Jasho	-	Driver Ii
Ms. Esther K. Peter	-	S.S.J
Ms. Gertrude Tabu	-	HCO
Mr. Joseph Mramba	-	SSS
Mbanga Mwasaha	-	AADII
Tura Munde	-	Snr Lecturer
B. A. Ndunyi	-	S/Man
Mr. Joseph Karisa	-	Driver I
Mr. Fredrick K. Michira	-	Driver
Eudit K. P. Mazenge	-	AAO
Mr. Humphery A. Munyoli	-	AAOII
Mwasambu Pole	-	Registrar
Diana Bade	-	Lecturer
Mr. Chengo K. Stephen	-	Lecturer
Mr. Alex B. A. M. Kinyoda	-	Assist Lecturer

Margaret Sulubu	-	Hod Home Ec. Dept
Mr. Michael Munyoki	-	D/Principal
Mr. Jackson Mulinge	-	Hod Crops Science
Mr. Wilson Oyange	-	Lecturer Crop Science
Mr. Bernard Ogutu	-	Hod Animal Science Dept
Mr. G. M. Kashindi	-	Lecturer
Wosula W. D.	-	Hod Basic Science
Mr. Stanley Mutuota	-	Snr Lecturer
Mary Marete	-	Hod Africa Education
Murage B. W	-	Head Of Agriculture Economics Dept
Mr. Humphrey A. Mwajoh	-	Lecturer
Mr. Frederick K. Michira	-	Driver
S. Ngusa	-	Hr Trainer
B. A. Ndunga	-	S/Man
Tuva Muinde	-	Snr Lecturer
Mbanga Mwasaha	-	Lecturer Engineering Dept
Mr. Sylvester Oketch	-	Agriculture Engineering
Ms. Luca Kashero	-	Lecturer H/Economics Department
Ms. Mary Maleen	-	
Mr. Joseph Karisa	-	
R. P. Mwasumbu	-	
Kitsao Kamsa Kaleti	-	

APPENDIX VI

PUBLIC HEARINGS

a)   Embu

Mr. Kala Ikutu	-	Provincial Director of Education
Mr. Silas Mwika	-	Graduate Student
Mr. William Micheni	-	E. O. DEO, Rep. Meru Central
Ms. Silvia Mugambi	-	DEB (Rep)
Mr. Njeru J. Murithi	-	DQASO
Mr. Nthurima Moses	-	KUPPET
Mr. Mohamed B. Ali	-	DEO Tharaka
Cllr. Grace N. Nduyo	-	DEB Tharaka
Mr. Moses M. Mwarania	-	DQASO Mbeere
Salesius Guantai	-	SQASO PDE Office Embu
Ms. Hellen W. Njeru	-	Teacher
Ms. Mary Mureithi	-	Teacher
Mr. Mutuku David	-	Chairman Kessha Sub Branch
Mr. John K. Letikirich	-	KNUT Executive Marsabit
Kenyakisa A. Etindi	-	DEO
T. M. Ndila	-	DEO Mwingi
Ms. Mary W. Gaturu	-	DEO Mbeere
Mr. Frederick M. Kiiru	-	EO PDE Office
Mr. Julius M. Ndumbu	-	QASO DEO Office Mwingi
Mr. Alex J. N. Njue	-	DEB Member Embu
Ms. Monicah Nabea	-	Teacher Moi High School
Mr. Henry Njagi	-	Teacher Moi High School Mbururi
Mr. Charles Njeru Muchira	-	D/DEO Embu
Mr. Germano Nyaga	-	KNUT Exe. Sec Meru South
Rev. Fr. David Kaberia	-	
Mr. Jacob Kamongo	-	DEB Member
Ms. Petronira Makau	-	DDQASO Makueni District
Ngure E. Wamiti	-	Teacher Itabua Sec School

Riungu J. N.	-	V/Chairman KSSHA
Mugo Brasio M.	-	Teacher Kangaru School
Lissa Burjie	-	Student Kangaru School
Mutwiri William	-	Student Kangaru School
Mr. Albert Nseke Thinaka	-	Chairman Kssha Meru South
Fr. Lawrence Njeru	-	Education Secretary Diocese of Meru
Fr. Francis Kimanthi	-	Education Secretary
Bishop Josephat Mule	-	Deb Member
Njeru Kanyamba	-	KUPPET Sec.
M. M. Mohammed	-	D.O.I
F. M. Macharia	-	Provincial Tech. Edu. Officer
C. K. Ndegwa	-	Chairman KSSHA
Lucy Mwirigi	-	Secretary KSSHA
Caxton Miungi	-	KNUT Sec.
Kamwilu D. M. (Mrs)	-	Treasurer Joint Activities
Malonhe T. M.	-	KSSHA Treasurer
Muia G. N.	-	KSSHA Treasurer
B. V. Muatine	-	KSSHA Chairman
Mr. Julius Muthoni	-	Principal Meru TTI
Teresa N. Riungu	-	DEO Kitui
Mr. Joseph M. Makuthu	-	KNUT Kitui Branch
Anthony Ndungu B	-	D/QASO Kitui
Mr. Justus J M. Muthee	-	MCK Education Secretary
Mr. Peter N. Njeru	-	KUPPET Chairman M/South
Mr. Mwambu Paul	-	Executive Secretary, KNUT
D. Mugo Gatambia	-	SQASO PDE Office Embu
Mr. Julius K. Wachira	-	UASU, member
Mr. Patrick Njuki	-	Secondary School Student
Ms. Edith Murulyi	-	Secondary School Student
Mugo E. Karuguti	-	Education Secretary
Mr. Onesmus M. Mulinge	-	KSSHA Chairman Machakos District
Koncora C. Isako	-	DEO Meru South
Ms. Jennifer N. Meeni	-	DQASO
Mrs. Murihti E. G.	-	KSSHA Treasurer

Mr. John Gitari Munyi	-	Secretary, KNUT
Ms. Edith Murucyi	-	Student, Itabua School
Mr. Patrick Njuki	-	Student, Itabua School
Lussa Burje	-	Student, Kanguru School
Mr. Willian Mutwiri	-	Student, Kanguru School
Mr. Kaburu Nabea	-	Senior Lecturer
Mr. Caesar Munyi	-	Chairman KNUT
Ms. Alibanus Mutisya	-	Executive Sec. KNUT
Kaungania J. Kinja	-	DQASO
Mr. Benson Kithuku	-	Executive Sec. KNUT
Ms. Stella Kithaka	-	Teacher Kangaru Girls
Sylvester Gakumu Karugu	-	Teacher Nguviu Boys
Noor Yassin Noor	-	Student Nguviu Boys
Mr. Alexander Mwai	-	Student Nguviu Boys
Ms. Damaris Mwea	-	Head Teacher Kyeni Girls
Kagwithi L. M.	-	Head Teacher Siakago Girls
Mr. Stephen Oginga	-	Student Moi University
Ms. Hannah Wahinya	-	Central Bank
Mr. Geophery Omondi	-	Former student Moi University
Prof Walgio O.	-	OMG
Mr. Onyango Ogalo	-	Student Kenyatta University

b)   Eldoret

Joseph K. Kilach	-	Parent
Patrick Oyaya	-	Parent
Rebecca Naimutie	-	parent
Patrick A. Kafu	-	Parent
Pires K. Seronei	-	Parent

c)   Garissa

Mr. Osiemo E. W.	-	Provincial Director of Education
Mr. Siyad Osman	-	Mayor Garissa
Mr. Hassan Sheikh Ali	-	Registrar KTTC
Mr. Abdi Sheikh Hassan	-	Councilor Ijara
Abdul M. Ali	-	DEO's Office
Mr. Adan Hussein H.	-	DEO's Office
Mr. Ahmed Dualla Ahed	-	DEO's Ijara
Mr. Abdi Bedel Ali	-	SEO/PDES Office
Abdi S. Osman	-	SEO/PDE Office
Mr. Hassan Noor Sheikh	-	PC DO NEP
Mr. Abdi S. Osman	-	SEO/PDE Office
Ms. Shalle Haji Dajane	-	PTA Sharil Sec
Morid A. Agdi	-	TARNET
Adon Adan G.	-	Principal Balambala Secondary School
Mr. Yusuf A. Abdullah	-	Principal Sabiinle Secondary Wajir
Mr. Abass A. Maalim	-	Principal Young Musilim High
Mr. Ismail Hassan Hussein	-	Dutar African Muslim
Mr. Dellow S. Mohamed	-	Garissa Open Learning Centre Kenyatta University
Mr. Mohamed Aden Issack	-	Principal Boystown Secondary School
Mr. Hamud S. Mohamed	-	BOG Boytown
Mr. Abdisalam S. Mohamed	-	Young Muslim Association
Mr. Ahmed Adan Abdikadir	-	Chairman NEPKUSA
Mohamed Dubow Shukie	-	NEPKUSA
Mr. Abdullah Omar Aden	-	NEPKUSA
Ms. Halima Mohamed Haji	-	Coordinator TARNET
Ms. Fatuma Khalif	-	Women Concern K
Ms. Halima Ahmed Gabow	-	University Of Zanzibar
Mr. Abdullahi M. Salah	-	Garissa National Library
Mr. Abdullahi H. Osman	-	Garissa National Library
Mr. Farah Ali Ibrahim	-	Garissa National Library
Mr. Ali Mohamed Hassan	-	NEPKUSA

Mr. Rashid M. Farah	-	Provincial Librarian
Mr. Dabaso Jillo	-	UNICEF Garissa
Mr. Michael Leigelson	-	UNICEF Kenya
Mr. Ibrahim Abdullahi	-	Principal Sankuri Sec School
Ms. Hilda Nyaga	-	Principal Umu Salama Girls
Abdikadir Aden Gedi	-	Umu Salama Girls
Mr. Aden Hussein	-	
Mr. Mohamed Daud	-	General Sec of Islamic
Mr. Ibrahim Ismail Daud	-	Kenya Student Association Islamic University in Uganda
Mr. Mohamed Farah Gore	-	Kenyan Student, Islamic University in Uganda
Mr. Rahma Abdullah	-	NEPKUSA
Rev. Lazaro Katiso	-	ACK Garissa
Dr. Ahmed Mohamed	-	Millennium Village Project
Mr. Anthony Maina	-	Woman Kind Kenya Project Coordinator
Mr. Guliye Abdullahi	-	Programme Officer Ijaira Diocese
John Nyangweya	-	Dean of Student North Eastern Province Technical Training Institute
Kaltuma Busama	-	KNLS
Anyona B. O.	-	Principal Neptti
Mr. John Musango	-	DIDEO Mandera
Said Adan Warsame	-	Mikono International
Mr. Ibrahim Hassan Ali	-	DEB Member
Mr. Sheikh Abdisalam	-	Manager YMCH

d)   Kisumu

Mr. Onyango Ogalo	-	Student Kenyatta University
Ms. E. A. O. Washindu	-	PDE's QASO Office Nyanza
Mr. Charles A. Odongo	-	PDE's Office
Mr. David M. Kitunguu	-	PDE's Office
Mr. Ouma Benard Student	-	Kenyatta University Student
Mr. John Ken Onyango	-	Student Kenyatta University

Ms. Suzzawe Lugioire	-	Report KNA
Ms. Linda Keya	-	Standard Newspaper
Dr. BH. Oders Ongundu	-	Consultant Management Finance
F. J. Leo	-	Provincial Examination Officer
Mr. Stephen Oginga	-	Student Moi University
Mr. Hannah Wahinya	-	Central Bank
Mr. Geophery Omondi	-	Former student Moi University
Prof Walgio O.	-	OMG

e) Mombasa

Mr. Adan S. Abdullahi	-	Deputy Provincial Director of Education
Mr. Juma Swaleh	-	Serani Secondary School
Mr. Mr. Abubakar Nagib	-	Serani Secondary School
Mr. Antony Baya	-	Serani Secondary School
Mr. Owiti Waogo	-	Serani Secondary School
Mr. Edwin Katama	-	Serani Secondary School
Jauan Olando	-	Serani Secondary School
Mr. Thomas Chege	-	Serani Secondary School
Mr. Gabriel Tinga	-	Serani Secondary School
Almas Andrew	-	Serani Secondary School
Mr. Mohsin Mohamed	-	Serani Secondary School
Milkah Wamboi	-	Changamwe Sec
Ms. Alice Dzungovu	-	Changamwe Sec
Ms. Shasa Omar	-	Changamwe Sec
Ramla Omar	-	Changamwe Sec
Ms. Joyce Salome	-	Changamwe Sec
Mr. Masound Abdallah	-	Changamwe Sec
Mr. Ahmed Abdilrashid	-	Changamwe Sec
Mr. Nicodemus Kisina	-	Changamwe Sec
Mr. Philip Imbote	-	Changamwe Sec
Mr. Julias Odero	-	Changamwe Sec
F. C. Mngongo	-	Economist
M. W. I. Kombo	-	Community Health Worker

Ms. Eunice H. Yako	-	Education
O. H. Wendo	-	Educator
Tima S. Ahmed	-	Administrator
Mr. Abdalla A. Ali	-	Education
S. H. Gakuta	-	Education
Mr. Gikonyo D.	-	Educationist
Mr. Julius Mathembe	-	Village Chairman
A. M. Kathima	-	Educationist
Mwaruka J. E.	-	Principal Tudor
Mr. Thomas Mutangili	-	PDE's Office
Mr. Majani Alex Tom	-	PQASO (Coast)
Mr. Matano H. Washenga	-	Chief
Ms. Wanyama N. Carolyne	-	Education
Ms. Agnes Nguma	-	Teacher
Ms. Victoria Mwadime	-	H/T Mikadini
Ms. Mary L. Omambia	-	Retired Teacher
Yunus Mambo	-	Teacher
Abdulrazak M. B.	-	Teacher
Ondicho M. Hezekiah	-	Student
Mishi Suleiman	-	Changamwe
Samuel Bisase	-	St. John
Mruche Ndungo	-	Teacher
Abdullahi	-	

f) Nakuru

Mr. S.K Kiura	-	DEO Samburu
Mr. Mohamed A. Ali	-	D.O Njoro
F. Mutie		DOI Nakuru
Naomi Nyambura	-	Business Njoro
Mrs. Agnes Kuria		Teacher Nakuru
Mrs. Joyce Marinoany	-	D/Principal Flamingo Sec School
Mrs. Martha Ogonya	-	D/Head Master, AIC Moi Girls Samburu
S.H. Ndombi	-	Head Teacher Wamba Boys

D. K. Kirui	-	H/M Baragoi Boys
J.K. Lenaituriae	-	H/M St. Theresas Girls
Isaac Kagia	-	Town Clerk Molo Town Council
Clr. Gideon N. Kungu	-	Chairman Molo Town Council
Clr. Paul K. Tesot	-	Councilor Molo
Clr. David K. Arap Melet	-	Former Councilor
Dimaco Jpa	-	D/PDE Rift Velley Province
Irene Wamaru	-	Reporter Kenya News Agency
Sheila	-	Reporter Kenya News Agency
Eunice K. Mutinda	-	Teacher Maruru High School
Ndegwa C. Wahome		D/ Principal Nakuru High
Joyce W. Macharia	-	Teacher Nakuru High School
Odera Jacob	-	Headmaster
Godwin K. Chepkungu	-	Councilor.
Perez Omondi	-	Principal Kisima Girls Samburu
Lucy Etare	-	Teacher
Jane Chege	-	Teacher Flamingo Secondary
Jacqueline Kisato	-	Student Nakuru High School
Benjamin Kosgei	-	Student Nakuru High School
Jeniffer Mbira	-	Student Nakuru High School
Mutai Victor	-	Student Nakuru High School
Arnold Chege	-	Student Nakuru High School
Liney Muro	-	Student Nakuru High School
Mercy Kerubo	-	Student Nakuru High School
Mary Mutandi	-	Student Nakuru High School
Abigael Muya	-	Student Nakuru High School
Brondah Wekesa	-	Student Nakuru High School
Alexander Kiere	-	Student Nakuru High School
Mais Kogo	-	Student Nakuru High School
Charles Kinyajui	-	Student Flamingo High School
Dennis Nyakundi	-	Student Flamingo High School
Daniel Cherop	-	Student Flamingo High School
Jacob Njuguna	-	Student Flamingo High School
Maruiri Mulwa	-	Student Flamingo High School

Francis Kimani	-	Student Flamingo High School
Abdul Hamis	-	Student Flamingo High School
Gilbert Muriuki	-	Student Flamingo High School
Ruth K. Kamau	-	Student Flamingo High School
Elkanah Karanja	-	Student Flamingo High School
Maureen Anyango	-	Student Flamingo High School
Beatrice Achieng	-	Student Flamingo High School
Jane Wambui	-	Student Flamingo High School
Eunice Wachira	-	Student Flamingo High School
Monah Akelloh	-	Student Flamingo High School
Bilhah Achieng	-	Student Flamingo High School
Gabriel Ochieng	-	Student Flamingo High School
Dominic Odhiambo	-	Student Flamingo High School
Maureen Atieno	-	Student Flamingo High School
Rogers Wamuha	-	Student Flamingo High School
Mutinda	-	Student Flamingo High School
Elvis Muiruri	-	Student Flamingo High School

APPENDIX VII

Persons and organizations that submitted written memoranda

Prof. Chacha Nyaigoti-Chacha   -   IUCEA

Mr. Abdullahi Haji Abdi   -   Kenya Technical Teachers College

Prof. Njogu Kimani

Mr. Chrispus Barasa

Mr. Emmanuel Kariuki

Mr. Harun Asena

Mr. Hassan Sheikh Ali

Mr. Isaiah Chepkong'a

Mr. John Onyango

Ms. Judith Njue

Mr. Kefa Away Omukunda

Mr. Murage Boniface Wachira

Mr. Shadrack Mayabi Mutupa

Coast Development Authority

Kilifi Staff