RESEARCH POLICY

FOREWORD

Mount Kenya University holds to the tenet that the socio-economic needs of the region can only be met through knowledge-based economy largely driven by research and innovation. Thus, the University is largely inclined towards offering science and technology programmes, and envisages up to three-quarters of its activities being research and innovation-driven. Therefore, this Research Policy is a deliberate effort to propel the University and its campuses in the region to achieve this goal. It is envisaged that this Policy will contribute to the prioritization of research needs, research execution and dissemination, and translation of valuable knowledge from research in a timely manner; the creation of ethical and evidence-based research policies including norms and standards; and the promotion, monitoring and implementation of high quality evidence-based research and innovation. This Research Policy will certainly stimulate and nurture a research culture among the University staff while enabling the institution to meet its broad research and innovation objectives in pursuit of its vision and mission.

Prof. Stanley Waudo, PhD
The Vice-Chancellor
Mount Kenya University

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1.0   INTRODUCTION

1.1   Background

Mount Kenya University (MKU) **Research Policy** provides a framework to ensure that the research programmes of the University are relevant, necessary, efficient and effective. The policy will create transparency and uniformity in research planning, implementing and monitoring research processes. It maps out processes of identifying and prioritising research needs and initiating research projects; procedures for preparation and approval of research proposals; guidelines for identifying funding sources and modes of acquisition; mechanisms for project monitoring and control; dissemination of research results and evaluation of research effectiveness and impact. It is the policy of the University to create and maintain a vibrant research culture among its staff both within and outside the University, with the prime goal of achieving scientific excellence.

The University recognizes the importance of research as a key component of the University mission. Therefore, the University is continually striving to strengthen its research capacity to effectively address the following key areas:

a) **Relevance.** This is with respect to addressing societal problems and needs in a prioritised manner, i.e., identification and prioritisation of research needs in line with national and international development objectives and priorities.

b) **Necessity.** Research is necessary to bridge knowledge gaps that hinder technological advancement and to advance the utility of an existing technology. Necessary research builds on past research findings.

c) **Efficiency.** In research, efficiency refers to the utilisation of resources (time, human and materials) in the widest possible sense, without duplication of effort. It ensures that research objectives are realistic for the available resources; objectives are achievable at the lowest possible cost, and resource allocation is based on relative importance of reaching the selected objectives.

d) **Effectiveness.** Research effectiveness is evaluated in terms of its potential to achieve desired results in satisfying the national objectives as well as the adoption and application of research findings in solving societal problems.

1.2   Coordination of Research at Mount Kenya University

The responsibility for coordination of research functions and resource mobilisation for research projects is vested in the Directorate of Research and Development, University, School and Departmental Research Committees.

1.3   Vision and Mission of Mount Kenya University

Research programmes and activities will adhere to MKU's vision and mission that are stated below:

1.3.1 Vision of MKU

To be an African role model of excellence in Science, technology, education and training.

1.3.2 Mission of MKU

To provide world class teaching, research and innovative extension services for sustainable scientific and technological development.

2.0   OBJECTIVES OF THE RESEARCH POLICY

2.1   *Overall Objective*
The overall objective of the **Research Policy** is to create uniformity and transparency in research planning, implementation, monitoring and evaluation, as well as research output dissemination processes.

2.2   *Specific Objectives*
The following are the specific research policy objectives:
a) To enhance research skills among staff.
b) To enhance research capacity.
c) To institutionalize research ethics.
d) To enhance post-graduate research and training.
e) To increase the quantity and relevance of research output
f) To utilize research results.
g) To protect intellectual property rights (IPR).
h) To promote corporate image and promote social responsibility.
i) To ensure that research results and technologies are effectively disseminated to stakeholders
j) To equip, encourage and motivate researchers and collaborators to conduct research
k) To develop a framework to upscale and commercialize research outputs and innovations.

2.3 Objective policy statements.

Specific Objective	Policy Statements
i). To enhance research skills among staff.	(i) Train staff in research methods and paradigms especially proposal writing (ii) Establish research skills needs (iii)Strengthen research infrastructure
ii). To enhance research capacity.	(i) Provide modalities for institutional and collaborative research, consultation and other stakeholders' control, and evaluation (ii) Enhance academic linkages (iii)Allocate funds in the university budget (iv)Promote research proposal writing.
iii). To institutionalize research ethics.	(i) Develop and conduct research
iv). To enhance post-graduate research and training.	(i) Develop postgraduate degree curricula

	(ii) Assemble required academic resources
v). To increase the quantity and relevance of research output.	(i) Develop guidelines for attracting competitive research grants.
vi). To utilize research results.	(i) Develop collaboration with private and public sectors.
vii). To protect intellectual property rights (IPR).	(i) Comply with IPR legislation
viii). To promote corporate image and promote social responsibility.	(i) Establish and strengthen the alumni association (ii) Establish community outreach programmes
ix): To ensure that research results and technologies are effectively disseminated to stakeholders	(i) Set mechanisms for preparing researches. (ii) Provide a forum for presentation of research findings and innovations. (iii) Set modalities for sharing research information through electronic and print media. (iv) Create a forum of interactive feedback mechanisms.
x): To equip, encourage and motivate researchers and collaborators to conduct research	(i) Improve researchers' capacity to write competitive proposals. (ii) Mentor young scientists to conduct high quality research.
xi): To develop a framework to upscale and commercialise research outputs and innovations	(i) To mobilise and harness resources for scaling-up and commercialisation of viable research outputs. (ii) Set up guidelines for intellectual property management and sharing of benefits arising from research.

3.0 MKU RESEARCH PRIORITY

The research priority areas will be developed using an all inclusive consultative process involving the University's departments, relevant government ministries, research institutes and other relevant stakeholders. The priority research areas will be reviewed from time to time. The following are the thematic areas and priority areas:

	Thematic areas	Research priority areas
1	Health Sciences	• Diseases • Vectors • Safe motherhood • HIV/AIDS and STI • Herbal medicine • Food and nutrition • Reproductive health • Gender • Adolescent health • Preventive health • Drugs
2	Water and Sanitation	• Integrated water resource management • Sanitation management • Waste water management • Water quality • Irrigation • Water harvesting
3	Building & Planning	• Landscaping • Rural and urban planning • Land use planning • Construction • Roads & Housing • Safety • Aesthetic
4	Infrastructure	• Transportation
5	Agriculture & food	• Crop production • Livestock production • Value addition • Food security • Biotechnology • Plant science • Micro-organisms

6	Environmental health Science	• Energy • Waste management • Environmental management • Ecosystems services • Pollution • Climate change • Biodiversity • Geospatial information systems
7	Biotechnology	• Plant • Animal • Medical • Microbial • Biosafety issues • Bioprocess engineering
8.	Mathematics	• Statistics and modelling • Actuarial science
9.	Information and communication technology (ICT) Research	• Systems engineering • ICT policy • Communication technology • Software engineering • Artificial intelligence • eLearning, eCommerce and eGovernance • Network security • Human computer Interface • Databases
10	Socio-Economic research	• Policy issues • Trade and commerce • Leadership • Governance • Gender, youth and vulnerable groups • Finance • Intellectual Property • Cultural • Political Issues • Entrepreneurship • Technology transfer

An annual research programme and budget shall be developed to guide research. The University will seek to participate in any forums relevant for the implementation of the research agenda.

4.0   POLICIES AND IMPLEMENTATION STRATEGIES

4.1   *Research Funding*

a. Research funding shall be solicited from bilateral multilateral, international and local sources, both public and private. Solicitation of funding shall be encouraged and facilitated at individual, departmental, school, institute and inter-institutional levels.

b. Projects for the University funding shall be selected on the basis of research priority themes subject to well-defined approval criteria.

c. Although applied research leading to tangible technologies shall be given priority, upstream basic research shall not be overlooked. An appropriate share of research funding shall be reserved to support such activities.

d. The University shall provide seed money to support initial project development and proposal preparation activities; such activities shall include background data collection, planning workshops and project write- up.

e. The establishment of professorial research chairs in schools shall be encouraged and facilitated as a way of attracting research funding.

f. Selection of professional research chairs will be based on contributions to research funding, publications, and international recognition.

4.2   *Research, Planning and Administration*

There shall be the University Research Committee, School and Departmental Research Committees responsible for overseeing research activities.

4.2.1   **The University Research Committee**

There shall be a **University Research Committee** responsible for the strategic management of research at the University.

a) Composition of the University Research Committee

The University Research Committee shall compose of:

i)   Deputy Vice-chancellor, Research and Development – Chairperson

ii)   Director, Research and Development

iii)   Deans of Schools

iv)   Director, Teaching and Examinations

v)   Finance Director

vi)   University Librarian

vii)   Registrar, Academic Affairs

viii)   Chairpersons, School Research Committees

b) Terms of Reference for the University Research Committee

i)   To periodically review and make recommendations to the Senate on the University Research Policy.

ii)   To establish research priorities for the university

iii)   To coordinate all research activities in the university
iv)   To make recommendations to the Senate on matters related to research
v)   To undertake and facilitate fundraising from external sources in support of research at the university
vi)   To allocate research funds and monitor their use
vii)   To produce an annual report on research activities in the University
viii)   To receive and evaluate research reports from recipient of research grants through Departmental and School Research Committees

4.2.2   Mandate of the Directorate of Research and Development

The Directorate of Research and Development shall:

a) Plan, develop and recommend policies governing research and development programmes to senate.
b) Provide leadership for collaborative research including capacity building, mentorship, assessing needs and identifying areas of priority.
c) Mobilize financial and other resources for research and development.
d) Coordinate all research activities, publication, production and innovation.
e) Promote dissemination of research findings.
f) Initiate and maintain local and international collaboration for research programmes.
g) Promote academic linkages, interchange, contact and co-operation with the public and private sectors.
h) Identify and advice senate on resource requirement for research and development
i) Organize, encourage and support public lectures, seminars and conferences.
j) Produce annual reports on research and extension and academic linkages.
k) Gather and disseminate information on research and funding opportunities to academic staff.
l) Produce competitive research project proposals
m) Develop a strong multidisciplinary research culture and encourage synergy.
n) Promote knowledge sharing with stake holders for accelerated development.
o) Coordinate preparation of research project proposals individually or in teams.
p) Coordinate provision skills in grant proposal writing to academic staff.
q) Provide assistance to departments and schools on writing competitive research project proposals
r) Start and maintain a quarterly research and development bulletin.
s) Work out modalities of implementing funded research projects.
t) Disseminate information on research funding opportunities to departments and schools.
u) Assist departments and schools market their research proposals to funding agencies.
v) Develop for approval by senate a format for research project proposals.
w) Maintain a list of consultants in various disciplines
x) Coordinate alumni and outreach programmes.

4.2.3 School Research Committees.

There shall be School Research Committees with membership and terms of reference outlined below:

Membership

i) Chairperson – Dean's appointee

ii) Chairpersons of Departmental Research Committees

Terms of reference

To coordinate in consultation with the relevant Dean of School, all research activities in the school.

4.2.4 Departmental Research Committees

There shall be department research committees with membership and terms of reference outlined below:

Membership

i) Chairperson – Head of Department's appointee

ii) Areas of specialisation representatives

Terms of reference

To coordinate in consultation with the relevant Head of Department all research activities in the department

4.2.5 Research in the University

All research and academic staff shall be obliged to do research. They shall be expected to prepare fundable research proposals and maintain a good balance between teaching, research and consultancy. Job descriptions for academic staff shall clearly stipulate the percent time the various levels of staff should spend on research. Research performance shall remain an important factor in the annual evaluation of academic staff through appropriate rewards for securing research funding and for successfully implementing research projects.

4.3 Approval, Monitoring and Control of Research Projects

a) Academic staff shall be well aware of the national and international research agenda and participate in the process of defining the research agenda for their areas of expertise.

b) Priority shall be given to projects within the main MKU research thematic areas when approving research proposals. All proposals, including those initiated by prospective donors, have to demonstrate that the projects will contribute towards the overall research objectives of the department and school *(Annex 1).*

c) The research proposals shall follow the research initiation, approval, execution and conclusion process as described in annex II

d) All research proposals follow the prescribed continuum process as prescribed (Annex III).

e) All projects shall be evaluated through peer review, on the basis of the four key measures of performance - relevance, necessity and in-built internal efficiency and effectiveness. (*Annex VI*)

f) Collaboration shall be promoted and facilitated at individual, institutional, national, regional and international levels, with special consideration for networking.

g) There shall be one general framework guiding the process of preparation and approval of research projects. Such a process shall aim to standardise the following issues, *inter alia*:

(i) Project initiation (*Annex II*)

(ii) Concept note preparation (*Annex II*)

(iii) Formats of research proposals (*Annex IV*)

(iv) Budgeting (*Annex V*)

(v) Conformity to financial guidelines

(vi) Procurement procedures

(vii) Disposal of assets

(viii) Formats for research reports(*Annex IX & X*)

(ix) Routing, scrutiny and approval and

(x) Registration and contractual agreement(*Annex VII and VIII*).

h) Employment within research projects shall comply with approved MKU personnel policy, which shall provide incentives that are distinctively suitable for School staff and short-term researchers (postdoctoral fellows and visiting scientists), respectively.

i) All research proposals shall be subject to the MKU approval process before they are accepted for funding or submitted to a prospective donor Irrespective of the source of funding.

j) MKU shall enter into a **research contract** with the researcher(s) when the project has been approved irrespective of the source of funding (*Annex VII*). Where there is an interest of joint ownership of research results/output, the contract shall be between the researcher(s) as one party, the joint financiers as the second party and the University as the third party.

k) Any project whose progress shall be found unsatisfactory on three consecutive evaluations shall be wound up prematurely to avoid further wastage of resources.

4.4 Contribution to Research Administration Costs

a) Each externally funded research project shall contribute at least 15% of the total direct costs of the project to the institutional overheads. The actual amount may vary depending on the regulations of the funding agency.

b)   The research overhead contribution shall be applied to the university's utility costs such as electricity, water, telephone and maintenance costs as well as support the university's research management infrastructure, with priority to the host department.

c)   Where the policy of an external donor does not allow for overheads, then the estimated costs of utilities and management support shall be included as direct costs to the project.

d)   Subject to review by the Research, Committee and to any modifications that might be preferred by the funding agency, the overhead contribution shall be allocated as follows:

- Remuneration for researchers   -   5%
- Common services and utilities   -   3%
- Implementing Department   -   3%
- Host School   -   2%
- Research management support   -   2%

4.5   Sharing/disposal of Research Project Resources

a) All schools and departments shall institute transparent and objective criteria for making research opportunities known to members of staff and for allocating such opportunities.

b) For externally funded projects, research resources shall normally be applied strictly to the specific project through which they were acquired and shall be reverted to the University at the end of the project.

c) All equipment purchased within a research project is the property of MKU and shall revert to general University ownership for reallocation when the project is concluded.

d) The researcher or department that undertook the completed project shall be given priority in reallocation of the research resources.

e) Procedures governing the disposal of University property (obsolete or otherwise) shall apply.

f) The University shall encourage and coordinate sharing of research information and information sources, such as books, journals, electronic information, (e.g. CD-ROMS) and sources of such electronic information through the internet (e.g. electronic databases).

g) Where physically possible, the University shall encourage and facilitate common services to research, such as word-processing, data management and editorial services, at approved procedures for cost sharing.

4.6   Remuneration of Research Staff

a) Research staff shall receive additional compensation above their standard emoluments as opportunity cost of doing research. The payment shall include:

    i) The appropriate proportion of project funds in respect of institutional overheads as provided for in paragraph 4.4 (iv) above, **or/and**

    ii) Any amounts earmarked for salary supplementation as specified in the project budget and approved by the funding agency, **and**

iii) All the monies budgeted for emoluments for staff hired strictly for the given project at the rates approved by the University and the funding agency.

b) In its endeavour to excel in research and human resource capacity building the University shall incorporate into its personnel policy, a special scheme for recognizing and rewarding outstanding performance in research. This scheme shall be implemented on a regular basis as part of the staff emoluments review programme.

c) The university shall institute a research performance award scheme consisting largely of the following types of awards:

i. *Token Awards* to include public recognition with a plaque, certificate, money payment, holiday allowance, etc., to be given along with or without any of the other awards;

ii. *Merit Increment* consisting of extra steps in the salary scale above the usual single step, given only in the year of achievement. Several (i – iv) merits could be awarded in one instance, where one merit shall correspond to one extra step;

iii. *Merit Promotion* to be awarded for outstanding performance, the duration of service in the current salary scale/position not withstanding.

iv. *Shares Award* for intellectual property ownership in the form of copyrights, patent rights, utility models and trademarks.

4.7 Creating a Conducive Research Environment

a) The University shall establish and strengthen administrative and financial management support to research, in order to relieve researchers of such non-research burdens.

b) Research support services shall include continuous improvement and modernization of management information systems and access to international literature and databases.

c) Researchers and research administrators shall be encouraged and facilitated to improve their capabilities in program formulation and fundraising and in routine project management.

d) The University shall be proactive in working towards a stable research environment by responding positively to staff needs, providing equitable compensation and by providing and maintaining basic research infrastructure and accessories.

e) Research collaboration shall be encouraged.

f) Strategies for disseminating research results shall aim at promoting a scholastic environment within the University.

4.8 Dissemination of Research Results

a) The University shall ensure that research results are disseminated widely to the intended beneficiaries.

b) Sponsors of research projects shall be furnished with research reports as per their requirements.

c) The University shall encourage and facilitate projects aimed at enhancing technology assimilation and utilization by industry and end-user communities.

d) The findings of each research project shall be released in intermittent progress reports in a prescribed format and through research seminars. The releases shall facilitate peer review of research performance.

e) On completion of each project, the principal researcher shall prepare standard research report in a prescribed format, which shall be reviewed and disseminated to stakeholders and policy makers to aid decision making.

f) The researchers shall be required to prepare manuscripts for publication in international journals. Each research manuscript shall be reviewed at an internal seminar before it is released for publication. Off prints of the publications shall be issued by the University Library on request.

g) The Research Department shall maintain and continuously update the University research database and make it electronically accessible through the University web site.

h) The Research Department shall publish an annual MKU Research Bulletin containing abstracts of research articles and titles and abstracts of newly funded as well as ongoing research projects.

i) All research proposals shall be required to include a provision for at least one workshop, seminar, training of trainers/beneficiaries or a suitable extension activity for technology dissemination at the end of the project.

j) Proposals shall also be required to include a provision for attendance by the researcher(s) (though not a must) of at least on international scientific forum at which the project results shall be presented.

4.9   Ownership of Research Outputs

a) In principle, ownership of research results/outputs shall rest with the University. This shall always be the case, without any dispute, when all research funding is from within the University, other public sources, or where donor funding is not tied to any specific research project(s) except where explicitly stated in the research contract/agreement (Annex XII).

b) Where research is financed either partially or wholly from an external source, and there is a desire for shared proprietorship of research results/outputs, then a formula for ownership shall be worked out up front and be part of the approval process (*Annex XII*).

4.10   Monitoring of Research impact

a) The University shall set up and implement a feedback mechanism to assess research effectiveness in solving societal problems.

b) The draft 3-year Research Agenda shall be reviewed and refocused at a Program Planning Workshop involving all stakeholders.

4.11   Ethical, Environmental and Security Considerations

The following issues will be considered.

(a) At the proposal approval stage, the University shall ensure that all research projects minimize their unfavourable impact on the environment and on live experimental subjects.

(b) All issues of ethics in research shall be handled and cleared by the Directorate of Research and Development through an Ethical Review Board.

(c) The Ethical Review Board shall be appointed by the University Senate and endorsed by the University Council. The Board shall consist of subject matter experts and representatives of relevant regulatory bodies, and may co-opt other members or consult other bodies of relevance.

- Ethical considerations shall be made when dealing with human subjects, confidential, sensitive, and private information, and live animal subjects.
- No research shall be approved whose activities or results might impact negatively on the environment.
- All research activities shall comply with the conditions set by the relevant regulatory bodies.

5.0   CONCLUSION

The University Research Policy is a deliberate effort to guide the University research towards greater internal efficiency, effectiveness and external relevance. Implementation of the policy is expected to instil uniformity and transparency in the processes of research planning, implementation, monitoring and evaluation. The policy puts great emphasis on the need to strengthen the University's research capacity by establishing and empowering the research management infrastructure, including the Directorate of Research and Development and participatory mechanisms for research coordination and decision making at Departmental and School levels. This is in line with the objectives of MKU, which places particular emphasis on standardization of procedures and operations through the development and implementation of clear policies and guidelines to govern its inputs, processes and outputs.   The University Research Policy maps out the processes of identification of research needs and prioritisation; research project identification and initiation; preparation and approval procedures for proposals, funding sources and modes; project monitoring and control dissemination of research results and evaluation of research effectiveness.

The University Research Policy is intended for use by all MKU campuses and constituent colleges both within and outside the country and external customers and to

serve many types of users including researchers, administrators, donors and target clientele. For these reasons, the policy sets out guidelines that promote the technical research aspirations of stakeholders, while it also satisfies internal administrative requirements of the University. At the same time, the policy recognises the special position of donors as enabling partners in research and that of collaborators as functional partners, both of who also have pertinent interests. In developing the policy, it is further recognised that for its effectiveness, the policy must be accepted and owned by the intended users. Attempts have been made, therefore, to make the policy clear, simple and accommodating.

It is hoped that the Research Policy will stimulate research professionalism and a scientific culture at the University and enable the University to meet its broad research objectives in order to address its vision and mission, both in the short and the long run.

6.0 ANNEXES

MKU RESEARCH GUIDELINES

MKU Research Thematic Areas for Researchers

<u>Annex I</u>

Research themes
The proposal should fall under one of the following university research themes.

<u>RESEARCH PRIORITY THEMES</u>

	Theme description	Research areas	Internal collaborators
1	Health Sciences and Public Health	Diseases Vectors Safe motherhood HIV/AIDS and STI Herbal medicine Food and nutrition Reproductive health Gender Adolescent health Drugs and adherence Oral health	1. Pharmacy 2. clinical medicine 3. Public health 4.Nutrition and Dietetics 5. Medical laboratory sciences 6. Dental technology 7. Biomedical sciences 8. District Hospitals
2	Water and Sanitation	Waste water management Sewage Water contaminants and pollutants Irrigation water Water usage and conservation	1 Pharmacy 2. Clinical medicine 3. Public health 4.Nutrition and Dietetics 5. Medical laboratory sciences 6. Dental technology 7. Biomedical sciences 8. Applied and pure science 9. Medical engineering
3	Building & Planning	Landscape Construction Roads & Housing Safety Aesthetic	1. Electrical 2. Chemistry 3. Public health
4	Agriculture, food processing & preservation	Crop Protection/Production Food processing Food security	1. Pharmacy 2. Clinical medicine 3. Public health

		Biotechnology Plant Science Microorganisms	4.Nutrition and Dietetics 5. Medical laboratory sciences 6. Dental technology 7. Biomedical sciences 8. Medical engineering 9. Animal health
5	Technology and industrial development	Mechanization Industrial	Pure and applied Engineering
6	Environmental Science	Energy Waste Management Environmental Management Urban environment Biodiversity Urban Environment	1. Pharmacy 2. Clinical medicine 3. Public health 4.Nutrition and Dietetics 5. Medical laboratory sciences 6. Dental technology 7. Biomedical sciences
7	Biotechnology	Plants Animal Medical Microbiology Bioprocess engineering	1. Pharmacy 2. Clinical medicine 3. Public health 4.Nutrition and Dietetics 5. Medical laboratory sciences 6. Dental technology 7. Biomedical sciences
8.	Mathematics/statistics/modelling		All departments
9.	ICT Research	Systems engineering Software engineering	IT Centre Physics Maths
10	Socio-Economic research	Policy, International trade Leadership Governance Gender Intellectual Property Cultural Political Issues Entrepreneurship Technology	All departments

MOUNT KENYA UNIVERSITY RESEARCH GUIDELINES

Guidelines for Approval of Research Proposals

<u>Annex II</u>

1.0   Initiation of a Research Project

A scientist or group of scientists can initiate a research project. The research idea may originate from technical indications of an ongoing or a concluded project, proceedings of a scientific forum, or from personal contacts with friends, collaborators or a representative of a prospective donor.

A research idea may also be floated by senior management as a result of official or personal enquiries and contacts with (or requests by) donors and the government

The Research and Extension Directorate should be notified in writing of the research idea, with a request to initiate project development. In consultation with the head of department and the dean of school, the Director shall in consultation with relevant Deans/Head appoint a Project Team to develop the project, with a named principal investigator as the convenor.

Where a prospective donor is already identified, the Research Proposal should be prepared by the project team, either in accordance with the format given in Annex IV, or in the format prescribed by the prospective donor. Where there is no donor identified, the proposal shall first be prepared as a Concept Paper (*Annex III*) for submission to donors.

The proposal or Concept Paper should then be submitted to the Research and Extension Directorate for processing and approval. A research Concept Paper may also be sent directly to prospective donors by the principal investigator, but a copy of proposal and forwarding letter must be submitted to the Director Research and Development. Processing of the proposal shall follow the full hierarchy of university's research management infrastructure, i.e., the departmental, school and University Research Committees.

The effort of initiating and preparing research proposals shall be rewarded by the University as recommended by the research committee. However, to ensure maximum efficiency and to minimize administrative problems, it is recommended that a researcher should normally limit the number of research projects undertaken at any one time. Approval for a researcher to undertake a project shall, therefore, be made at the discretion of the Research Committee (on the recommendation of the departmental committee), which shall consider the researcher's availability to handle the project. The aim will be to ensure a reasonable balance between involvement in research, teaching and consultancy.

Approval of research proposals (and researchers to undertake projects) shall be based upon previous satisfactory performance. In general collaborative research work will be

given preference over individual ones. MKU encourages international collaborative research and where funding is available, these would be given special preference.

Where the initiator of the project is considered unavailable or unsuitable to handle the project, the Research Committee (on the recommendation of the departmental committee) shall have powers to assign some other person as the principal investigator for the project.

2.0   Action by the Departmental Research Committee (DRC)

The proposal should be discussed by the DRC, which shall consider the project's relevance, necessity, internal efficiency and soundness of the financial estimates, potential effectiveness and built-in provisions for capacity development.

When satisfied, the DRC will forward the research proposal, through relevant Heads of Department, to the school Research Committee (SRC) with appropriate recommendations.

If the DRC is not satisfied with the research proposal, there are three possible courses of action that it can take:

(i)   Return the proposal to the researcher(s) for review and subsequent re submission during the next call for research proposals.
(ii)   Interview the researchers and then either subject the proposal to the action above or approve it subject to minor corrections. Another outcome of the interview could be approval of the proposal as it is.
(iii)   Reject it outright if the committee is sufficiently convinced that the proposal is of sub-standard nature in both the content and presentation.

In case a research proposal is rejected and the applicant is not entirely satisfied with the decision one can appeal to the Head of Department, who might choose either to return it to the DRC with recommendations or endorse the rejection. However, if the proposal is rejected by the DRC for the second time, no further appeals should be entertained.

At all decisive stages of the evaluation, copies of the correspondence communicating DRC actions should be submitted to the Director Research and Extension for monitoring purposes.

As a guideline, the DRC should limit its evaluation to a maximum of three months.

3.0   Action by the School Research Committee (SRC)

The SRC will scrutinize the research proposal, especially the research objectives, research methodology, time schedule, phasing etc. The SRC shall particularly scrutinise the cost estimates and can make other specific recommendations on the area coverage

and resources required although academic responsibility and evaluation lies with the departments.

When satisfied, the SRC will forward the research proposal, through the Dean of relevant School, to the Director Research and Development with appropriate recommendations.

If the SRC is not satisfied with the research proposal, the courses of action to be taken are similar to those taken by the DRC.

At all decisive stages of the evaluation, copies of the correspondence communicating SRC actions should be submitted to the Director Research and Development for monitoring purposes.

As a guideline, the SRC should limit its evaluation to a maximum of three months.

4.0   Action by University Research Committee (URC)

The URC shall receive and consider all proposals for funding after being satisfied of the relevance, necessity, internal efficiency and soundness of the financial estimates, potential effectiveness and built-in provisions for capacity development.

The URC shall have the following alternative courses of action.

Accept the proposal for funding when the committee is satisfied.

Return the proposal to the SRC for review and subsequent resubmission if the guidelines are not followed or if the procedures have not been adhered to.

Approve the proposal, subject to minor corrections to be made by the applicant(s).

Reject the proposal outright if the committee is sufficiently convinced that the proposed research is not within the University's mandate and mission, or if the proposal is of sub-standard nature in both the content and also the presentation.

In case a research proposal is rejected and the applicant is not entirely satisfied with the decision, one can appeal to the Vice Chancellor who might choose to either return it to the University Research Committee with recommendations.

5.0   Proposal Processing under Emergency

Under emergency situations, where a prospective donor must receive a proposal urgently for competitive bidding, the Director Research and Development shall approve an appropriate alternative proposal processing procedure. Under such circumstances, a draft proposal may be submitted directly to the prospective donor before it is evaluated through the normal approval channel. However, the proposal must then be reviewed by the various research and publications committees, as the donor's response is awaited.

6.0   Approval and Registration

All research projects shall be registered with the Research and Extension Directorate, whether they are funded at School or University level. Research proposals shall be numbered serially in accordance with an approved format (*Annex VIII*). The register shall identify each project by its host faculty, department, the year of initiation and project number.

The Directorate of Research and Development shall co-ordinate research project registration. The Office shall also maintain an up-to-date database of all research projects within the University.

7.0   Research Contract and Funding

7.1   **Contractual agreement for researchers:**   For each approved project, regardless of the source of funding, funds shall be released only after the researcher(s) shall have signed a Research Contract. The Deputy Vice Chancellor Academic Affairs shall sign originals of research contracts irrespective of the source and level of funding. The format for research contract is given as research management tool number *Annex VII*.

7.2   **Progress reports:**   For multi-year projects, the researchers must undertake to prepare and submit Interim Progress Reports at the end of each project-year, to the Directorate of Research and Development. The reports, which must be submitted through the DRC and the SRC for evaluation, should give the up-to-date technical and expenditure reports for the period under review and projected activities and budgetary requirements for the subsequent year. Funds for the subsequent project-period shall be released only on receipt of a satisfactory progress report. A format for such progress reports is given as research management tool number *Annex IX*. Depending on the results of progress evaluation, there may be a need for modification of the research contract (or schedule of payments); requests should be formally made through and recommended to the URC by the DRC.

7.3   **Independent evaluation of research progress**:   In some cases, the DRC might wish to send the interim report(s) to an independent reviewer before approving the next phase. Such cases will involve research projects handling massive data that is not easy to interpret, or research projects involved in very recent technological developments not well established in the department concerned. However, in any case, the funds for the next phase can only be released after the approval of the progress report by the URC.

8.0   Final Research Report

The researchers undertake to submit a draft final research report at the conclusion of the project and to amend the draft as necessary until an approved Final Research Report is produced. The final report should include all the data, results and findings obtained during the execution of the research project. The interim progress reports will normally form the basis for the final consolidated research report. The guidelines for preparation

of the Final Research Report are given in research management tool number *Annex X*. The draft final research report should be submitted to the DRC who shall appoint an independent reviewer to review and submit a report within one month after receipt of the researcher's report. The reviewer shall submit the review report to the Directorate of Research and Development in the format given as research management tool number *Annex VI*.

The researcher(s) will be required to modify the draft report as much as possible according to the reviewer's recommendations if there are no major differences in their opinions. In the case of serious differences in the opinions, the DRC will have to appoint a second independent reviewer who will have to finish the review exercise within two weeks. In such a case, the DRC will have a final say on the required modifications to the draft report after receiving the second reviewer's report. No appeals will be encouraged at this stage.

Final research reports shall have a standard front cover (*see Annex X*) and a unified printing format similar to the one demanded by international journals. All final research reports will be marked with serialised numbers indicating the department, publication number and year of publication (e.g. RR/PH/3*/2010 or RR/CM/7*/2010). The Directorate of Research and Development will assign these numbers after the approval of the draft final report. The numbers marked with an asterisk (*) shall be in serial order.

At least 6 (six) copies of the final research report should be submitted to the SRC for final approval. After the approval, these copies will be distributed as follows; Directorate of Research and Development, SRC, Head of department, Chairman DRC, MKU main library and the section library where this exists. The abstracts of the final reviewed research reports should be published annually in the MKU Research Report.

9.0   Undertaking on research Seminars

The researchers are encouraged to give periodic seminars during the research work and will be required to give a seminar/conference at the conclusion of the project. The seminar/conference presentation will in principle be the last item to be handled by the researcher(s) after completion of the exercise of reviewing the final draft report. This shall be a precondition for the release of the final payment of honoraria or emoluments to the researcher(s).

10.0   Premature Termination of Stalled Projects

The researchers must agree that, should project implementation be found unsatisfactory on two consecutive progress evaluations/reviews, it shall be wound up prematurely to avoid further wastage of resources. The investigating researchers shall be required to prepare the project final report and submit it within a specified period. The final report will be further evaluated by an independent expert, who will give a second opinion on the performance of the project. The independent evaluation report will be critical in

subsequent discussions with interested parties for final closure of the project and disposal of its assets.

MOUNT KENYA UNIVERSITY RESEARCH GUIDELINES

Format for Research Concept Paper

Annex III

A Research Concept Paper is a miniature replica of the project proposal in a highly condensed form. It may be treated as a rather long letter to the potential donor. The following may constitute sections of the paper:

1. **Introduction**

    Give a short overview on the nature of the problem

2. **Rationale**

    (i)   What are the justifications for carrying out the planned work?
    (ii)   What problems do you plan to solve?
    (iii)   Who are the beneficiaries?
    (iv)   What is the targeted implementation area?
    (v)   Why do you choose these specific beneficiaries in this specific area?

3. **Expected Results**

    (i)   What results do you expect on completion of the project?
    (ii)   What are the expected impacts, and how will they change the status of the targeted beneficiaries?

4. **Methods**

    (i)   How do you plan to carry out the project?
    (ii)   How and with what will the measurements be made?

5. **Strategy**

    (i)   What are your plans for implementing the activities in space and time?
    (ii)   Are you planning to work with any other groups?
    (iii)   Who will actually do the work and where?

6.   **Resource Requirements**

   (i)   What resources (human, equipment, materials and services) are required to implement the project?
   (ii)   Are all these resources available or are some to be acquired afresh?

7.   **Duration**

How long will the project take to complete? Although this information could be provided under the Strategy, it gives more impact when isolated in a separate section.

8.   **Funding**

Give an indicative amount of the total funds that will be required to provide the project resources stated above. What is the total value of the resource component that you (or implementing organisation) will be contributing to the project?

9.   **References**

Which authorities do you have that is relevant to the planned work which you can cite?

MOUNT KENYA UNIVERSITY RESEARCH GUIDELINES

Format and Guidelines for Writing a Research Proposal

<u>**ANNEX IV**</u>

Cover Page
The project document must bear the standard official cover page for MKU-originated research proposals. Inscriptions on the cover page should include the MKU Logo, project title, the name of the donor(s) to whom the proposal is submitted for funding and the month and year of document preparation.

Project Title
The title should be concise, catchy, scientifically valid and sufficiently descriptive to reflect the nature of the proposed work. The title of the project once approved cannot be changed or modified without the written consent of the Directorate of Research and Development Directorate of Research and Development.

Executive Summary
A summary of the proposed project should be submitted, mentioning briefly, the objectives, problem statements, methodologies, proposed activities, expected outputs, duration and the budget. This should not exceed 300 words. Considerable attention should be given to the preparation of this item in order to capture the key points. It is suggested that this item be written last.

Introduction/Literature Review
In this section the applicant should broadly describe what is already known about the subject or topic area. What general facts (scientific, socio-economic or geo-political) should we know about the proposed area? What general factors may have necessitated this project? This should bring out the need for this project by clearly capturing the knowledge gap in the proposed work. This should reflect a thorough survey of the existing state of knowledge and how and in which way the intended work is going to contribute to the advancement of knowledge in the context of the problem to be solved, or bring about socio-economic development. If there is an overall conceptual framework it should be described here.

Problem statement
A clear statement of the problem to be solved by the proposed work must be provided.

Project goal(s), Objectives and Hypotheses
Project goals and objectives should be clearly stated. The broad objective and specific objectives should be indicated. The objectives must be SMART. Smart objectives are specific, measurable, attainable/achievable, realistic and time-bound. Where the goal is broad, it may be necessary to state overall objectives under which specific objectives and targets are stated.

Rationale and Justification

The researcher should in this section address the following issues: problem relevance; ability to provide solution(s); technical feasibility of the approach; availability of outside scientific inputs; past performance of researcher(s) in executing similar projects; contribution to long-term capacity building, knowledge generation, and impact of the project and cost effectiveness.

Anticipated Outputs

These are the desirable outcomes necessary in order to achieve the stated specific objectives. There may be several outcomes required to achieve each objective. These outputs must tally with the objectives spelt out. It should clearly list direct and indirect beneficiaries of the project outputs realised.

Project Methodology

The proposal should clearly and thoroughly spell out the methods to be used and the research plan for the project. It should also indicate that the proposed research methodology, research design of the project, data collection and analysis techniques. This section should also describe the project implementation sites and reasons for its selection, facilities and major items of equipment, space, and supplies and services to be used. The researcher should also show the project's relationship to other ongoing projects in as far as sharing of physical facilities, equipment and data is concerned.

Where necessary, activities such as group training, tours, scientific research training, manuscript preparation and publication, should be indicated. Methods of dissemination of research results to the beneficiaries should be clearly stated.

The Logical Framework

The logical framework, often simply referred to as the log frame, is a system of project management in which the processes involved are analysed systematically and logically, in order to establish factors important to the successful implementation of the project. The main components of the log frame are:

a) Intervention Logics: Project purpose or Overall objective, Specific objectives, Outputs and Activities.

b) Objectively verifiable indicators: The operational parameters for measurement of the achievements as a result of implementation of the project

c) Means of verification: Describe the source of the verifiable indicator, in terms of when, where and in what form it shall be found.

d) Critical assumptions: These are intervening factors, which will influence project direction and interfere with its implementation, but are outside the control of the implementing team/agency.

e) Preconditions: These are a set of conditions that must be met even before the project can start.

f) Inputs and Cost: This should show the physical and non-physical means of project implementation as well as the total cost of the proposed project in a summarised form.
    Note: The log frame should be presented in a matrix format.

Project Time Plan

In this section the researcher should give the total duration of the project and the sequence in which the research activities will be undertaken and for how long they will be done. Appropriate project scheduling techniques should be used to illustrate the project time outlay. A recommended and simple method is the Gantt chart, which also graphically shows the relationship between individual activities and the total duration of the project. Use of activity networking techniques, such as the Critical Path Method may be required in large and complicated projects that have activities whose completion time may impact on project progress.

Impact of Project

The researcher should state the anticipated impact of the project activities and results. This should include and quantify the project effect on the environment, and the society.

Monitoring and Evaluation Plan

The researcher should clearly indicate the Key Performance Indicators (KPI), the Intellectual Property Audit (IPA) and the proposed M&E schedule.

Roles and Responsibilities of Collaborators

The researcher should indicate the collaborators, their specific roles, contacts and their institutions of affiliation.

Education and Training Needs

In this section, the capacity development needs of project personnel should be clearly stated with reference to the details mentioned in the project activities section.

Project Structure and Management

The researcher should describe the project organization showing the interrelationships among the participants. Large multidisciplinary projects should be broken down into sub-projects, which may be hosted by different departments, institutions and where applicable funding levels be indicated. The researcher should indicate how the project will be structured and managed. This should include critical departments responsible for the project implementation and donor(s) contributions.

Publication of Results

Indicate where and in which form the results of the work may be disseminated/published.

Budget and Resource Requirements

The applicant should show the breakdown of all the resources and their costs. Where the applicant has applied for funds from some other sources he/she should specify the name of the organisation, and the amount granted. The maximum funding level is 1.5 million per project per year for a maximum period of three years. Refer to Annex V on budget for further details

Curriculum Vitae

CVs of all the researchers should be attached to the proposal.

MOUNT KENYA UNIVERSITY RESEARCH GUIDELINES

Research Budget Format

ANNEX V

1. **Cost Estimates**
    Cost estimates for research project proposals should be given under specific subheadings, each representing a group of related expenditure items. Standard research expenditure items are presented under the following Sections:

    a) **Personnel**
        (i)   List only titled positions on full-time or part-time assignment to the project
        (ii)   List researchers by their expertise and indicate allowable costs as approved.
        (iii) List technical and administrative staff also by their expertise as much as possible, allowable costs as approved.

    b) **Travel**
        (i)   indicate separately, Local and International Travels by project staff.
        (ii)   Transport (for each person/journey, include fare, hire or mileage reimbursement at approved rates)
        (iii) Subsistence costs (for each person/journey, include per diem and accommodation costs at approved rates)

    c) **Equipment**
        (i)   Laboratory equipment: indicate names, models numbers, number of units required and their costs
        (ii)   Vehicles: Indicate types, makes and number of units required
        (iii) Field equipment: include the costs of any items to be used in field work, such as nets, traps
        (iv)   Office equipment – office electronics and furniture
        (v)   Reference material

    d) **Materials, services and Expendables**
        (i)   Vehicle running expenses (spares and service, insurance and licences, fuel cost/km) where applicable
        (ii)   Equipment maintenance (spares and servicing)
        (iii)   Farm inputs and Field labour
        (iv)   Stationery and photocopying
        (v)   Postage, telephone and internet services
        (vi)   Membership fees and permits
        (vii)   Consultancy services
        (viii) Special activities
        (ix)   Include cost of staff development training

(x)   Include costs of scholarships
(xi) Include costs of planning and conducting training courses, workshops, seminars, tours.
(xii) Costs of reports preparation, thesis and manuscripts publication

e)   Networking
(i)   Estimate and show cost of collaboration
(ii) May be the cost of research at a partner institution
(iii) May also be cost of travel by either party, specifically for the purpose of collaboration

f)   Monitoring and Evaluation
(i)   Cost of meetings
(ii) Cost of evaluation (perhaps by an expert, mission, peer)
(iii) Cost of end-of-project conference

g)   Overhead costs (10% of direct costs - optional)
h)   Contingencies; usually 10 - 15% of direct costs

2.   The Budget
The Budget should be presented in a Table designed as shown below:

SAMPLE BUDGET TABLE

PROJECT TITLE

BUDGET (KSHS)

Item	Notes	Unit	Rate	Year 1	Year 2	Year 3	Total
Personnel costs (a) Senior Scientist/ Project Coordinator (b) Ecologist (c) Laboratory Technician Data Analyst	1	Man-year	400			400	400
Travel Local Subsistence Transport International							

Budget Notes
Items that require additional explanations should be numbered in the "Notes" column and the explanation given against the specific number at the bottom of the Budget Table.
E.g. 1. The Data Analyst will be required only during the final year of the project.

MOUNT KENYA UNIVERSITY RESEARCH GUIDELINES

Format for Research Proposal Evaluation Report

<u>Annex VI</u>

<u>Project Title:</u> _____

                       _____

                       _____

<u>Evaluation Report:</u>

EXECUTIVE SUMMARY	YES	NO
Is clear and concise	[ ]	[ ]

Comments:

_____

BACKGROUND INFORMATION		
Introduction clearly shows need for this project	[ ]	[ ]
Literature Review is comprehensive, relevant and up to date	[ ]	[ ]
Hypothesis is logical and clearly stated	[ ]	[ ]

Comments: _____

GOALS AND OBJECTIVES	[ ]	[ ]
Both are clearly stated		
Priority is clear	[ ]	[ ]
Objectives are achievable	[ ]	[ ]

Comments: _____

METHODOLOGY AND ACTIVITIES		
Methodologies are scientifically acceptable	[ ]	[ ]
Activities are proper, well designed and related to all objectives stated	[ ]	[ ]
Time plan suits planned activities	[ ]	[ ]
Monitoring and evaluation plans are suitable	[ ]	[ ]

Comments: _____

PERSONNEL AND FACILITIES
     Project personnel are scientifically and
     technically capable   [   ]   [   ]
     Research facilities are adequate for
     implementation of the project   [   ]   [   ]

          Comments: _____

BUDGET
All planned activities are represented in budget   [   ]   [   ]
Cost estimates and total budget are realistic   [   ]   [   ]

          Comments: _____

RATIONALE AND JUSTIFICATION
     Problem is clearly stated   [   ]   [   ]
Project is technically feasible   [   ]   [   ]
Cost-benefit is well reasoned out   [   ]   [   ]

          Comments: _____

CONCLUSION: Do you recommend approval of this proposal?
Yes, as presented   [   ]   [   ]
     Yes, subject to minor revisions   [   ]   [   ]
      No, do not   [   ]   [   ]

          Comments: _____

ANY OTHER COMMENTS?   [   ]   [   ]
     (Attach additional sheets of paper for detailed comments)

          Comments:

MOUNT KENYA UNIVERSITY RESEARCH GUIDELINES

Contractual Agreement for Researchers

<u>Annex VII</u>

Please refer to the conditions of the research contract (overleaf) before filling out this form.

1.   Title of Project:

_____
_____
_____

2.   Full details of the PI and the collaborators

Name (s)	Full physical address	Telephone numbers & Email address	Role in the project	Signature
a.				
b.				
c.				
d.				
e.				
f.				
g.				

 (Attach on separate page in case of extra collaborators)

3.   Funding agency: _____

4.   Sponsor's Code Number (if external):_____

5.   MKU Code Number: _____

6.   **Compliance with Project Proposal:** The project shall be implemented as per the details contained in the approved Project Proposal, which is attached hereto. Any changes in project plans shall be undertaken only if approved by the University and or the project sponsor.

7.   **Duration of engagement:** The project shall be undertaken for a period of ………………..months/years plus any additional extension approved by the parties, and I undertake to avail my professional services for the full life of the project.

8.   **Funding:** The University, or the external sponsor through the University, undertakes to provide funding for the proposed project for the total amount of KSh _____. Funds will be disbursed annually at a maximum of Ksh. 1,500,000 per year for a

maximum of three years. The first instalment shall be released on satisfactory completion of this agreement and dully filled forms of Key Performance Indicators (KPI), Intellectual Property (IP) audit forms and Gantt charts. Annual disbursements of subsequent instalments shall be subject to satisfactory technical/ financial reports and Monitoring & Evaluation report.

9. Planned reporting schedule: Quarterly: _____ Semi-annually: _____ Annually: ___

Report No.	Period covered	Date report expected
1st	_____	_____
2^{n}	_____	_____
3rd	_____	_____
4th	_____	_____

10. Planned disbursement schedule

Instalment No.	Date	Amount
1 year	_____	_____
2 year	_____	_____
3 year	_____	_____
Total		_____

11. Adherence to MKU employment policy: All supporting staff, e.g. secretarial, technical and auxiliary will be from among the MKU staff/students. Permission to employ staff outside MKU, if for an extended period of time and/or on regular basis should be obtained from the DVC (AA) before it is effected.

12. In case of unsatisfactory technical and/or financial performance:

    (i)   MKU reserves the right to withhold disbursements, partially or fully, if it is not satisfied with the progress of the project.
    (ii) If poor performance is detected over two consecutive progress evaluations, MKU shall have the right to terminate the project forthwith, in accordance with policy on premature project termination.
    (iii) The researcher(s) shall be required to refund the MKU payments received fully or in part in case of non-performance.
    (iv) In case a project does not commence six months after the award, MKU reserves the right to rescind the decision.
    (v)   In case the Principal investigators leaves/resigns or abandons the project, MKU reserves the right to appoint a new PI. This is subject to submission of satisfactory technical and financial reports.

13. Intellectual property rights: Copyright ownership shall be determined in accordance with the MKU policy currently in force.

14. Declaration: I, _____, being the Principal
    Researcher / Co-Researcher (delete as appropriate) in the project named above, undertake
    to implement the project under the terms and conditions stated herein.

_____   _____

Principal Investigator   **Witness (Director, Research and Development)**

_____   _____

Deputy Vice Chancellor (R&D)   **Date**
(Affix University Seal/Rubber Stamp)

RESEARCH CONTRACTS CONDITIONS

1.0 EMPLOYEE PATENT, RESEARCH AND PROPRIETARY RIGHTS AGREEMENT

I understand that my duties as an employee of Mt Kenya University may include some form of research and access to proprietary data.

I agree that the facilities, equipment, funds, and/or stimulation provided to me by or through the University has greatly contributed to my effort and the conception and/or reduction to practice of discoveries, invention, development of apparatus, or software and/or the creation of related documentation, data, reports (hereinafter referred to as proprietary information).

Consideration of my employment with and/or studies in the University; and in order to settle in advance any question regarding the ownership of any patent or copyright which may be granted to me, or the rights in any proprietary information which may be developed by me.

I agree that the University shall own any proprietary information that is conceived by me, either solely or jointly with others, during the course of my employment and/or through the use of facilities and/or equipment of the University, whether made during my usual working hours or otherwise, and the University also shall own any patents or copyrights relating to such proprietary information.

I further agree that I will promptly and fully disclose such proprietary information to the University Directorate of Research and Development.

I will co-operate with the University in making application for Kenya and foreign patents or copyright at the request of and at the expense of the University should it determine, in its sole discretion, that an application is warranted. I will do all acts required to assist the university in obtaining, maintaining, and enforcing patents and copyrights or other protecting proprietary interests in programs and software systems and in otherwise protecting proprietary information in any and all countries, all to be done without further compensation to me other than reimbursement for direct expenses in providing such assistance.

Upon request of the University, I will assign to its Management Board all proprietary information and/or application for patents and/or copyrights issued on such proprietary information based on my disclosure, with full rights, powers and privileges of ownership.

The University may: -

Determine in its sole discretion that the ownership of the proprietary information will not be retained by the University and it will notify me of the relinquishment of its rights to me.
Notify me that the proprietary information will be accepted on a provisional basis.
Accept the proprietary information.

The URC may assign the ownership of the proprietary information and/or application, patent, or copyright on such proprietary information back to me should it determine, in its discretion, that further expenses for development is unwarranted.

_____   _____
Principal Investigator   **Witness (Director, Research and Development)**

_____   _____
Deputy Vice Chancellor (R&D)   **Date**
(Affix University Seal/Rubber Stamp)

MOUNT KENYA UNIVERSITY RESEARCH GUIDELINES

Project Registration Form

<u>**Annex VIII**</u>

1.   Title of Project:

_____

_____

2.   Name of Principal Researcher:

Name: _____ Department: _____

3.   Co-researchers:

<u>Name</u>   <u>Department</u>

a)
b)
c)

3.   Funding agency: _____

4.   Sponsor's Code Number (if external):_____

5.   Name of contact person: _____

6.   MKU Code Number (issued by R&D): _____

7.   Project duration: _____ months/years

From: _____/_____/_____ to: _____/_____/_____ (day/month/year)

8.   Total Project Cost: _____KShs or _____(_____)

9.   Planned reporting schedule: Quarterly: ____ Semi-annually: ____ annually: ___

Report No.   Period covered   Date report expected

1st _____   _____
2nd _____   _____
3rd _____   _____
4th _____   _____

10.   Planned disbursement schedule

Instalment No.	Date	Amount
1st	_____	_____
2^{n}	_____	_____
3rd	_____	_____
4th	_____	_____
Total		_____

11.   Prepared by: _____ _____
                    Name   Sign

12.   Approved: _____ _____
                    Director (R&D)   Date

MOUNT KENYA UNIVERSITY RESEARCH GUIDELINES

Research Progress Report

Annex IX

1.0   Use Gantt charts with elaborate footnotes for each activity (Planned and achieved)

2.0   Financial Statement of Income and Expenditure during reporting period

Project Title: _____ MKU Ref:_____

Report No.: _____   Period Covered: _____ to _____

		Amount brought forward	Funds Received	Funds Expended	Balance*
1.	Consumables				
2.	Personnel				
3.	Equipment				
4.	Travel costs				
5.	Students stipends and fees				
6.	Students bench				
7.	Equipments costs				
8.	Laboratory costs				
9.	Field work costs				
10.	Consultants				
11.	Printing and publishing costs				
12.	Workshops/Conference				
13.	Unforeseen costs				
14.	Co-ordination costs				
15.	Overhead charges				
GRAND TOTAL (KShs)					
GRAND TOTAL (other currency)					

Note: Currency conversion rate @ KShs. _____

Notes:
1.   Amount should be shown in Kenya shillings but may be converted to any other desired currency.
2.   The breakdown should be as shown in the budget approved for the reporting period.
3.   Include as funds expended those for which commitments have been made.
4.   This amount is the sum of amounts in the first two columns, less the amount in the third. The balance should be reconciled with approved budget indicated in Annex V.

MOUNT KENYA UNIVERSITY RESEARCH GUIDELINES

Final Research Report

<u>Annex X</u>

Investigators:…………………………………………………………………………..

Project Sponsor(s):…………………………………………………………………….....

Report Date:………………………………………………………………………………

1.0   Table of Contents
A research report should include the following headings:
a) Abstract/Executive summary
b) Acknowledgements
c) Table of contents
d) List of figures
e) List of symbols
f) Introduction
g) Objectives
h) Literature review
i) Methodology
j) Experimental/Activity details
k) Results
l) Analysis and Discussion of the results (Achievement of planned objectives, constraints, Conclusions and Recommendations)
m) Comments on expenditure accounts
n) References/Bibliography
o) Tables
p) Plates
q) Figures
r) Appendices (e.g. original work schedules, original project budget, expenditure accounts, etc.)

2.0   Report Format
- All headings should be left justified.
- Line spacing should be single and fonts should be 12.
- Margins should be 1.5 inches on the left and 1 inch on all other sides.
- Typing should be on one side of the A4 page.
- Format for quoting reference numbers in the text and references should be standard. British Citation Standard BS 5605:1990 is recommended. Any other standard that is recommended for certain professions could also be used.
- Report cover shall be as shown in the attached format.

MOUNT KENYA UNIVERSITY RESEARCH GUIDELINES

Intellectual Property Rights

<u>Annex XI</u>

1.0 PREAMBLE

MKU has the obligation to protect intellectual property emerging from research funded from whatever sources by the prompt filing of appropriate patent applications.

Except as otherwise provided by the Senate approved policy or legal instruments, any discoveries or inventions which result from research carried on by, or under the direction of any employee of the University, or from funds under the control of, or administered by the University, or which come as a result of any employee's duties with the University, or which have been developed in whole or part by the utilization of University resources or facilities, shall belong to the University and shall be used and controlled in such a manner as to produce the greatest benefit to the University and the public

For the purpose of this policy, the term "employee" shall include all staff and students (including post-doctoral appointees, graduate and under-graduate students) who engage in research conducted under the conditions defined above. Discoveries from a research associate shall be the joint property of the University and the appointee's mother institution unless otherwise agreed upon.

The administration of MKU patent policy matters, including technological know-how that may be licensable but may not be patentable, shall be the responsibility of the Vice-Chancellor. Patent matters include such activities as accounts, records and negotiations.

The Vice-Chancellor may delegate this authority to the Deputy Vice-Chancellor Research and Development.

2.0   PATENTING, LICENSING EXPENSES AND THE APPROPRIATION OF ROYALTIES

Patenting and licensing expenses for each patent will be recovered from its royalty earnings and distributions will be made from net royalties remaining. Net royalties from licensed invention will be distributed according to the following schedule: -

Inventor(s)	30%
Collaborator(s)	40%
University	30%

3.0   APPOINTMENT INCASE OF SALE OF PATENT, COPYRIGHT OR LICENSING

3.1   If proprietary information, or patent or copyrights relating thereto are sold or licensed the University shall share royalties and/or other income received as follows: -

Inventor(s)	30%
Collaborator(s)	40%
University	30%

3.2   Payment will be made to me within sixty (60) days of the calendar year. If is proprietary information is the product of collaboration with others entitled to participate in the royalties, who have also entered into agreement with the University, payment will be made in appropriate shares as we (and the other collaborating with) may agree upon, the aggregate to all persons not to exceed the amount of percentage set forth in this agreement.

3.3   Progression to the sharing range of the paragraph (3.1) above shall occur on the basis of cumulative income received by the University over the life of any agreement.

3.4   Where the University incurs extraordinary expenses for example, either in further developing a concept in order that it be reduced to practice, or in enhancing the marketability for licensing by establishing a pilot plant project, or in enforcing its patents or other proprietary rights against infringers or others who may have misappropriated some or in defending some from attaché by others (for example, cost of land site, building, equipment and labour in connection with a pilot plant project or legal fees and other expenses related to litigation) before sharing any of the aforesaid income with me, the extraordinary expenses will be credited against any income with me, the extraordinary expenses will be credited against any income received by the University and general expenses incurred in a given calendar year will be credited against income received in that calendar year; however, if income does not cover all expenses in any given year, any remaining balance will be carried forward to succeeding years until credited in full (but not back to prior years).

4.0   SPONSORED RESEARCH

4.1   In the event that I am engaged in sponsored research or other projects under a contract between the University and an outside agency during my employment by the University, I also agree that:

4.2   The terms of the contract shall, in case of any conflict with this agreement super cede.

4.3   I will be bound by the contract as to any obligation, which extends beyond the terms of this agreement and I will execute any and all documents, which the University deems necessary in its sole discretion.

4.4   Any change in the terms of this agreement or obligation imposed by this paragraph (4.1 shall be effective for the term of the commitment governing the sponsored project.)

5.0   CONSULTANCIES

In the event I do undertake to perform consultancy for third parties, I agree that:

5.1   If the consulting agreement it to include the assignment of invention and/or patenting to the consultee, the University will be so advised before I complete the consulting arrangement and the consultee shall be advised of this agreement and the University's background patent and/or proprietary rights position in the area of the consultation.

5.2   Any consulting agreement shall provide that the consultee does not receive a license under the University's background patent and/or other proprietary rights unless the University and the consultee enter into a separate agreement concerning the same.

5.3   The University will be advised if such consulting services will involve the use of University equipment. Such equipment shall only be used with prior approval from the university and upon payment of a charge should the University, it its sole discretion, determine that such a charge should be imposed in return for the use of such equipment, and the university relinquishing the claim it would have on the results of consulting services because of the use of its equipment.

5.4   I understand paragraphs (3.2) and (3.3) in no way diminish my obligation to fully and promptly disclose to the university any discoveries or inventions I make in the course of my association with the University regardless of the source of funds for financial support.

5.5   I will not directly or indirectly during or after the term of my employment

5.6 Give to any person, not authorized in writing by the University to receive it, any information classified for purposes of internal University security or specifically designated by the University as "Limited", "Private", or "Confidential", or

5.7 Give to any person not authorized in writing by the University to receive it, any of the University proprietary date or information relating to products, softwares, systems, inventions, ideas, processes, research, and the like and including, without limitation, drawings, design, systems, sketches, layout, formulae, specifications, reports, and other written manufacturing, technical, or scientific information.

5.8 Any dispute arising between the employer and researcher in connection with these presents shall be submitted to two arbitrators with each party to the dispute appointing one arbitrator and in case of a deadlock to two arbitrators and an umpire for a decision.

This agreement supersedes any other agreement I may have with the University relating to patents and/or proprietary rights.

Employee's signature   **Witness**

Signed……………………   Signed………………..

Date……………………...   Date………………….

…………………………..   Date………………….

Deputy Vice Chancellor Research and Development
Mount Kenya University

MOUNT KENYA UNIVERSITY RESEARCH GUIDELINES

Criteria for Sharing Copyright Ownership of Research Output

<u>**Annex XII**</u>

1.0   Criteria

Six criteria for sharing copyright ownership are proposed, as described here below:

1.1   Intellectual contribution

This refers to the intellectual input of each member of the research team. It would normally be based on academic qualifications and seniority of the research team members. However, it is acknowledgeable that the principal investigator could be less senior but still play the lead role because his/her expertise is more relevant to the area of the research project. With due consideration of variations that may arise due to area of expertise and leadership role in the project, the following points are proposed:

Level of Qualification	Points
Ph.D. or equivalent	4-5
M.Sc/Mphil/MA/Postgraduate Diploma	2-3
B.Sc./BA/HND (or equivalent)	1-2

1.2   Professional experience

Professional experience shall be evaluated by considering the working experience in terms of years of employment in that particular profession. Again, variations may arise on account of relevance in expertise required for the project, in which case a person with less experience may make a greater contribution to the research.

With due consideration of variations that may arise due to area of expertise and leadership role in the project, the following points are proposed:

Duration of Experience	Points
Above 10 years	3
Between 5-10 years	2
Below 5 years	1

1.3   Technical support

Under this criterion, technical support shall be awarded points ranging from 1-4 depending on the relative contribution of the technical staff irrespective of rank.

1.4   Time input

The time input is evaluated by breaking down the duration of all project activities into person-hours and then determining the equivalent hours spent by each contributor.

1.5   Financial contribution

Financial contribution to the research project shall include investment cost, cost of materials and consumables and operational expenses. Honoraria shall be included only if shall payments shall been standardised in advance and agreed upon by the partner institutions as being specific to the project in question.

1.6   Facilities for research and development

The cost of using any machine shall be calculated as the product of time spent on the machine and the charge rate. The rates shall be agreed upon in advance. The time spent on each machine shall be computed at the end of the respective project, by mutual agreement of team members.

2.0   Computation of Shares

Criteria weightings
Fundamental research and product development projects shall carry different weighting factors for each of the six criteria. However, for each category the weighting should add up to 1.0

Fundamental research and development is that which starts from basic principles to develop a concept into a product.

Product development or innovation is work input to an existing concept or product to produce a useable or better product

The proposed weighting factors for both fundamental research and product development work are summarised in the **Table 1**.

Table 1: Weightings for calculating shares of copyright ownership

	Criteria	RANKING (1 - 6)		WEIGHTING (0.00 – 1.00)	
		Fundamental	Development	Fundamental	Development
1	Intellectual contribution	6	3	0.29	0.14
2	Professional experience	4	6	0.19	0.28
3	Technical support	2	4	0.10	0.19
4	Time input	1	2	0.05	0.10
5	Financial contribution	3	5	0.14	0.24
6	Facilities for research	5	1	0.24	0.05
	TOTAL	21	21	1.0	1.0

Computation of share percentage

The format to be used for computation of the percentage share ownership for all co-sponsored projects is shown in **Table2**.

Table 2:   Copyright share evaluation for co-sponsored research projects

	CRITERIA	POINTS		% SHARE		WEIGHTING		GPA	
		MKU	Partner	MKU	Partner	FUND	DEV	MKU	Partner
1	Intellectual contribution								
2	Professional experience								
3	Technical support								
4	Time of involvement								
5	Financial contribution								
6	Facilities for research								
	TOTAL								
	TOTAL GPA								
	% SHARE OWNERSHIP								