



**MACHAKOS UNIVERSITY**

**RESEARCH POLICY**

**JULY 2018**



**APPROVAL**

**Policy Title:** Research Policy

**Policy Contact:** Deputy Vice Chancellor (Research, Innovation and Linkages)

**Approval Authority:** The University Council

**Category:** Division of Research, Innovation and Linkages

**Reference No.:** MksU/MR/R/012

**Effective date:** Date of signing

**Approved by the University council:**

Sign: .....

Date: 19.2.2019.....

**PROF. LUCY W. IRUNGU, PH.D.**  
**VICE-CHANCELLOR & SECRETARY TO THE COUNCIL**

Sign: .....

Date: .....

**PROF. GIDEON BILLY HANJARI, PH.D.**  
**CHAIRMAN OF THE COUNCIL**

## FOREWORD

Machakos University has a strong technical background and has therefore built a unique niche in training technical personnel in diverse areas of Civil Engineering, Electrical and Electronics Engineering, Fashion Design and Marketing, Hospitality & Tourism, Business, Education, Agribusiness and Applied Sciences. These areas also generate researches that inform new discoveries, trends and innovation that need a strong foundation. This research policy has therefore been developed to help the university to remain on track in developing programmes with orientation towards Science, Technology and Innovation, and thus contributing towards the attainment of Vision 2030 and the Sustainable Development Goals (SDGs).

Thus, the central goal of the Machakos University Research Policy is to help the institution remain true to its philosophy, “to provide transformative leadership in Teaching, Training, Research, Innovation, Industrial and Technology transfer for wealth creation”. This philosophy is firmly anchored in Machakos University’s research orientation as encapsulated through its mission: “to provide scholarly education through Training, Research and Innovation for Industrial and socio-economic transformation of our communities”. Indeed, this policy prescribes the guidelines that will govern research funds and their administration, ethical aspects, publication and dissemination, intellectual property and copyright issues, and monitoring and evaluation among other critical issues on research.

It is my sincere hope that the university will embrace the policy and utilise it to facilitate the furthering of Machakos University research goals.



Prof. Lucy Irungu, PhD

Vice- Chancellor

&

Professor of Entomology

## ACKNOWLEDGEMENT

I am grateful to the technical team that worked on this policy: Director, Research, Innovation and Technology- Dr Patricia Muendo, the former University Research officer- Dr. Geoffrey Maroko, Prof. Charles Ombuki and Dr. Larry Ndivo who actively reviewed the draft research policy. I also to mention the following members of the management board of the Directorate of research, innovation and Technology: Dr. Esther Nduku, Mr. Charles Mwaniki, Dr. Jacob Konyango, Mr. Stephen Kibe and Mr. Bernard Mutua.

It is not possible for me to single out every person who made contributions to the development of this policy in various capacities. However, I would like to acknowledge such contributions for they made this policy significant to mission and vision of Machakos University and other stakeholders.

Thank you.



**Prof. Peter N. Mwita, Ph.D**

**Deputy Vice-Chancellor (Research, Innovation and Linkages)**



## LIST OF ABBREVIATIONS AND ACRONYMS

1. **BRIT** - Board of Research, Innovation and Technology
2. **CAADP** - Comprehensive Africa Agriculture Development Programme
3. **Co-PI** - Co-Principal Investigator
4. **DRIT** - Directorate of Research, Innovation and Technology
5. **DCV (APF)** - Deputy Vice Chancellor in charge of Administration, Planning and Finance
6. **DVC (ASA)** - Deputy Vice Chancellor in charge of Academic and Student Affairs
7. **DVC (RIL)** - Deputy Vice Chancellor in charge of Research, Innovation and Linkages
8. **HIV/AIDS** - Human Immunodeficiency Virus/Acquired Immunodeficiency Virus
9. **IPR** - Intellectual Property Rights
10. **MksURF** - Machakos University Research Fund
11. **MksU** - Machakos University
12. **MoU** - Memorandum of Understanding
13. **MUC** - Machakos University College
14. **PI** - Principal Investigator
15. **RIL** - Research, Innovation and Linkages
16. **SDGs** - Sustainable Development Goals
17. **VC** - Vice Chancellor

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## **1. PREAMBLE**

Machakos University was established through a charter awarded on 7<sup>th</sup> October 2016, as a successor to Machakos University College (MUC) previously established through a Legal Notice NO. 161 of 4<sup>th</sup> November, 2011 as a Constituent College of Kenyatta University.

Machakos University endeavours to always be a leading center of academic excellence in education, research, training and community service in Kenya, in the region, and beyond. The University has established the Directorate of Research, Innovation and Technology (DRIT), to coordinate and facilitate research, extension, consultancy services and dissemination through production of education materials, seminars, workshops, conferences and symposia.

## **2. VISION STATEMENT**

A preferred University of Excellence in Scholarship and Service Delivery

## **3. MISSION STATEMENT**

Provide scholarly education through Training, Research and Innovation for industrial, and socio-economic transformation of our communities.

## **4. CORE VALUES**

**INTEGRITY** -To honestly deliver on our promises to our stakeholders

**ACCOUNTABILITY** – to always be accountable in the assigned duties

**PROFESSIONALISM**-To be committed to high standards of training and service delivery

**INCLUSIVITY** - Respect for diversity

**CREATIVITY** -Determination to continually improve

**TEAMWORK** -To actively work together to achieve common goals

**EQUITY**- to strive to be an equal opportunity university where meritocracy is practiced in all areas



## **5. MACHAKOS UNIVERSITY MANDATE**

- a) Provide directly or in collaboration with other institutions, facilities for technological, professional and scientific education
- b) Advance knowledge and its practical application through Research, Innovation extension and other means
- c) Disseminate the outcomes of research by various means and commercially exploit the results of such research
- d) Participate in technological innovation as well as in the discovery, transmission and enhancement of knowledge and to stimulate the intellectual life in the economic, social, cultural, scientific, and technological development
- e) Contribute to industrial and technological development of society in collaboration with industry and other organizations
- f) Make proposals for new programmes of study including those that culminate in degrees, diplomas and certificates
- g) Make proposals for the establishment of colleges, campuses, faculties, schools, institutes, departments, and other resource and administrative units as may be appropriate from time to time

## **6. MACHAKOS UNIVERSITY POLICY STATEMENT**

Machakos University is committed to developing a research culture that encourages and rewards excellence in research, innovation and technology. It is committed to building research capacity of its researchers and to developing research facilities that will be accessible to the researchers, and other interested collaborators. The institution has signed several memoranda of understanding (MoU) to enhance collaboration and networking for research and development.

This policy provides a framework for strengthening private-public relationships with the University and for developing consistency, high quality management, accountability, and strategic direction for research at Machakos University. It maps out the processes of identifying and prioritizing 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.



## **7. CITATION**

This policy shall be cited as the Machakos University Research policy.

## **8. SCOPE OF THE POLICY**

This policy shall apply to all staff and students of Machakos University and their collaborators.

## **9. OBJECTIVES OF THE RESEARCH POLICY**

This policy will:

- a) Ensure that the University research agenda addresses national and international development goals and priorities;
- b) Strengthen the organizational framework for planning and administration of research;
- c) Ensure that the University assumes responsibility, accountability and control over all research activities undertaken within or on behalf of the University;
- d) Develop a research culture at the University;
- e) Broaden and develop research and innovation capacity of the institution across all disciplines, and extend knowledge to the nation and the international community;
- f) Empower staff to manage, conduct, disseminate and report research and innovation results;
- g) Position the University as a Centre of excellence in research;
- h) Increase graduate research activity at the University;
- i) Improve the quality of outputs, including their impact, level of accountability, and timeliness of reporting;
- j) Provide a structure for continual improvement of research;
- k) Enable the commercialization of research outputs, for the benefit of the researcher, the University, and the wider community;
- l) Enhance dissemination of research through organizing conferences, symposia, colloquia and publishing.

## **10. RESEARCH ADMINISTRATION**

### **10.1 DIVISION OF RESEARCH, INNOVATION AND LINKAGES**

There shall be a division for Research, Innovation and Linkages (RIL) which shall be headed by the Deputy Vice Chancellor. The DVC (RIL) shall be assisted by the Registrar (Research, Innovation and Linkages) who shall deal with the policy directions of research, innovation and linkages.

### **10.2 DIRECTORATE OF RESEARCH, INNOVATION & TECHNOLOGY**

There shall be a directorate of Research, Innovation and Technology (and any other units that may be established from time to time) whose director shall be appointed by the Vice-chancellor from among persons holding the rank of senior lecturer and above and who shall be responsible for the execution of this Research Policy and for the coordination and management of its day-to-day business in consultation with the Deputy Vice-Chancellor (RIL).

### **10.3 BOARD OF RESEARCH, INNOVATION & TECHNOLOGY**

There shall be a University Research Management Board, an advisory body responsible for the strategic management of research, innovation and linkages at the University. The University Research Management Board shall comprise the Deputy Vice Chancellor (RIL) as the Chairperson, four deans of Schools, two senate representatives, two student representatives and the Director (Research, Innovation and Technology) as the secretary.

The BRIT shall be answerable to the Vice Chancellor and shall be responsible for the following, to:-

- i. develop and recommend to the Senate the research policy of the University;
- ii. review University research policy and make recommendation to Senate;
- iii. establish research priorities for the University;
- iv. Establish and maintain linkages with national and international institutions responsible for research policy development and regulation
- v. Proactively influence university policies to ensure that research interests are safeguarded.

- vi. Monitor donor policies and research funding opportunities and bring information to the attention of relevant persons
- vii. Receive and approve all research proposals and co-ordinate collaborative research projects
- viii. Prepare, review and standardize research management tools
- ix. Make recommendations to University Senate on the allocation of funds available for research in connection with research and travel to conferences;
- x. Receive reports from recipients of grants on the use of research funds received from all sources;
- xi. Allocate research funds to individual applicants out of the funds voted by University Senate for this purpose;
- xii. Co-ordinate applications for research funds from external donors;
- xiii. Prepare annual budget estimates for all allocation of funds from the University resources;
- xiv. Identify and recommend to the University the establishment of research facilities or laboratories
- xv. Administer the university Intellectual Property policy.

#### **10.4 COMMITTEES**

There shall be three committees answerable to the research board of management. The committee members shall be appointed by the Deputy Vice Chancellor (Research, Innovation and Linkages) and shall have representation from the major research disciplines in the university. The terms of reference for the committees shall include the following:

##### **10.4.1 RESEARCH COMMITTEE**

The Research and Ethics Committee shall be responsible for the following functions, to:-

- a. Develop and recommend to the research Board, the research policy of the University.
- b. Review University research policy and make recommendations to the research Board.
- c. Establish research priorities for the University and guide research as per government policy on research.
- d. Receive proposals, review and make recommendations to the Board.



- e. Co-ordinate collaborative research projects.
- f. Make recommendations to the Board on the allocation of funds available for research and travel to conferences.
- g. Monitor management of all research funds and grants.
- h. Allocate research funds to individual applicants out of the funds voted by the University Council for this purpose and make recommendations to the Board.
- i. Formulate guidelines for application for university research funds.
- j. Prepare annual budget estimates or a submission for all allocation of funds from the University.
- k. Identify and recommend to the University through the Board the establishment of research facilities.
- l. Ensure all research activities undertaken within the mandate of the University are in accordance with internationally acceptable research standards, ethics, and norms.
- m. Undertake all monitoring and evaluation activities of funded research.
- n. Undertake staff research capacity building.
- o. Develop a schedule to review/ vet research proposals

#### **10.4.2 ETHICS COMMITTEE**

There shall be established Machakos University Institution Ethics Committee which shall be responsible for following:

- a. Developing policies and code of practice to guide institutional research ethics. This will include Research Ethics and procedures guiding research on plants, animals, human beings etc as required by law and set standards.
- b. The provision of and ensuring adherence to guidelines that govern ethical research practice in order to ensure the protection of human research participants for research carried out under the auspices of the University;
- c. Ethics approval of research projects;
- d. Oversee that research and disposal of research materials are carried out in healthy environment, and according to the standard guidelines, respectively;
- e. Monitoring of ethical practice in research on behalf of the Board of Research, Innovation and Technology;
- f. Determine and review ethical review application fees;
- g. Address any ethical issues brought up by the government from time to time.

- h. Submit quarterly reports on activities of the committee to Board of Research, Innovation and Technology.

#### **10.4.3. PUBLICATION COMMITTEE**

In consultation with Printing and Publication committee of senate, the committee shall be responsible for the following functions. To:-

- a. Coordinate and approve University academic and scientific journals, newsletters, magazines as well as other formal University documents;
- b. Spearhead establishment of the Machakos University Press;
- c. Receive and consider manuscripts for publication by the University Press;
- d. Recommend to the Board publication opportunities or matters that would complement educational materials availability;
- e. Seek ways of making the University Press a self-supporting institution;
- f. Strengthen the University staff capacity on preparation of academic materials for publication and related aspects and encourage academic staff to produce instructional materials;
- g. Published annual reports on Compendium of research and publications in the university.

#### **11. RESEARCH PRIORITY AREAS**

To ensure relevance, research undertaken at Machakos University shall be aligned to institutional, national, regional and international, policy and development goals such as Machakos University statutes (2016), Commission for University Education standards and guidelines (2016), Kenyan constitution (2010), the United Nations SDGs, the Comprehensive Africa Agriculture Development Programme (CAADP); Kenya's Vision 2030; Africa Union Agenda 2063; National research and development agenda (2013 – 2018), National Guidelines for care and use of animals in research education in Kenya etc.

The research shall address cross cutting issues like gender equity, HIV/AIDS, food security, entrepreneurship, climate change/ variability production and, sustainable environmental management (i.e. land and water management, green energy), market access and energy for sustainable development among others.

Machakos University Institutes, Faculties and Departments shall develop and pursue

well- defined research priorities prepared in consultation with staff at the Departmental level. These shall include, but not limited to, the following eight (8) thematic with sub-theme areas:

a) Engineering and Technology

- i. Renewable and sustainable energy (Solar energy, Wind Energy, Tidal waves, Hydro and Geothermal, Biogas)
- ii. Mining & exploration (Nuclear energy; Petroleum and coal)
- iii. Manufacturing / domestication of Technology;
- iv. Nanotechnology/Bio-medical/Material research;
- v. Space science and technology.

b) Agricultural Sciences, Technology, and Agribusiness

- i. Post-harvest, agro processing (Food Technology);
- ii. Optimize produce, improve produce, diversify produce (Biotechnology).
- iii. Gender, agriculture and development
- iv. Food security, nutrition and health;
- v. Agricultural markets, value chain and food systems
- vi. Rural advisory services

c) Tourism, environment and natural resource management

- i. Climate change, adaptation, and mitigation
- ii. Environmental pollution and waste management
- iii. Ecosystem services and management
- iv. Development and environment
- v. Clean energy and sustainable development
- vi. Environmental governance and policy
- vii. Sustainable tourism

d) Hospitality and Health Sciences

- i. Primary health care
- ii. Curative medicine including alternative medicine;
- iii. Emerging diseases, vectors, surveillance and zoonotic diseases;
- iv. Innovation and Emerging technologies in hospitality and health (Nano technology);
- v. Environmental health



- vi. Community nutrition
  - vii. Service quality in hospitality operations
  - viii. Legal and customer care in hospitality management
- e) Education and Social Sciences
- i. National integration and cohesion; Ethics; Development research;
  - ii. Education issues;
  - iii. Languages and communication.
  - iv. Fashion, design and marketing
  - v. Community resource management and development
  - vi. Literature
  - vii. Culture sustainability
  - viii. Transformational leadership;
  - ix. Gender mainstreaming;
- f) Computer Science, Information and Communication Technology
- i. Software system development - An application approach to create business and jobs
  - ii. ICT security - To curb cyber-crimes such as hacking
  - iii. Knowledge management and automation -paperless office, digitalization and archiving of documents).
  - iv. Media technologies
  - v. Risk management, modelling and simulation.
  - vi. ICT Robotics -development of software to run robotics.
  - vii. ICT infrastructure integration and use.
  - viii. Media technology and animation, social
- (g) Physical, Biological and Mathematical Sciences
- i. Development of advanced research laboratories.
  - ii. Material Science
  - iii. Biotechnology (molecular biology, Genetics, Immunology, Genomics, Bio-prospecting and characterization of pathogens)
  - iv. Ecological ecosystems; Biodiversity and resource conservation
  - v. Science Education.
  - vi. Modelling and Simulation
  - vii. Data Mining

- viii. Estimation in Parametric and nonparametric Statistics
  - ix. Pure and Applied Mathematics
  - x. Computational Chemistry
- (h) Business and economics
- i. Entrepreneurship
  - ii. Human resource management
  - iii. Strategic management
  - iv. Supply chain management
  - v. Marketing
  - vi. Statistics and economics
  - vii. Finance
  - viii. Accounting
  - ix. Banking

## **12. RESEARCH FUNDING**

The University recognizes two sources of funding for research activities: The Machakos University Research Fund (internal) and research grants from donors (external). All research activity details in Machakos University will conform to a depository rule and such information will be availed to the Deputy Vice Chancellor (Research, Innovation and Linkages) Office.

### **12.1. MACHAKOS UNIVERSITY RESEARCH FUND**

There shall be established a Machakos University Research Fund (MksURF) to support research at the University. Sources of funds shall mainly be;

- a) A minimum of at least 2% of the University's total operation annual budget to be distributed as shown below:
  - i. Seventy (70) % be spent as Annual Research Grant;
  - ii. Ten (10) % to be spent on development of critical capital equipment for research;
  - iii. Ten (10) % to be spent on development and maintenance of University research Publications;
  - iv. Ten (10) % to be spent on Extension services.
- b) University Endowment Fund;
- c) The University alumni association;

d) University Scholarship;

#### 12.1.1. APPLICATION AND AWARD OF INTERNAL RESEARCH GRANTS

- a) The Directorate shall publish invitation for submission of internally funded research proposals three months prior to the end of financial year.
- b) All applications for internal research support shall be addressed to the DVC (RIL) through the directorate.
- c) Research proposals that comprise at least 30% of either gender shall stand a higher chance of success.
- d) All submitted proposals shall be initially reviewed by the Research and Ethics Committees to determine whether the proposals are consistent with the established guidelines.
- e) If there are minor deviations from the guidelines, the Principal Investigator shall be asked to correct the proposal and if they are major, the proposal shall be rejected and the Principal Investigator notified.
- f) Each proposal that passes the initial review shall be sent to external peer reviewers who are specialists in the subject area of the proposal.
- g) Each external peer reviewer shall review and rank the proposal according to approved criteria that shall be provided.
- h) Each peer reviewer shall give detailed critique of the proposal, a copy of which shall be sent to the Directorate for purposes of feedback and guidance to researchers involved in developing the proposals.
- i) Each successful research proposal shall be funded (subject to availability of funds). Priority shall be given to those who have not benefited before.
- j) For every approved proposal, the Principal Investigator shall sign the granting condition form where he/she undertakes that:-
  - i. The project is not funded by any other organization. The Principal Investigator shall declare the funding details.
  - ii. The research results are co-owned by the Investigators and the University.
  - iii. In case of an invention, the Principal Investigator and the University shall be co-owners of the patent.
- k) The Deputy Vice-Chancellor (Research, Innovation and Linkages) or his/her representative shall on behalf of the University sign a contract with the Principal Investigator for the purposes of accountability and management of the funds following approval by the University Research Management Board;



- l) All approved internally-funded research projects shall run for a duration not exceeding the specified and approved schedule unless otherwise approved by the relevant authority of Machakos University.
- m) Principal Investigator (PI)/institutional representative shall undertake to submit three (3) copies of quarterly reports consisting of technical and financial to the DVC (RIL) through the Director, Research, Innovation and Technology.
- n) Funds allocated for research by the University shall be used only in Kenya unless approved otherwise.

## **12.2 EXTERNAL RESEARCH FUNDS**

The sources of funds shall mainly be from:

- a) National financial resources allocated for research;
- b) International development partners;
- c) External Scholarships to the University;
- d) Philanthropists among others;

### **12.2.1. APPLICATION FOR EXTERNAL RESEARCH AND DEVELOPMENT GRANTS**

- a) Proposals and any other applications for external research and development support that require University endorsement shall pass through the Deputy Vice Chancellor (RIL).
- b) An application for external funding that does not require University endorsement shall be notified to the Directorate for inventory purposes
- c) For an externally funded project, the Principal Investigator shall sign a contract with the donor and the Vice Chancellor (or the Deputy Vice Chancellor-RIL as representative of the Vice Chancellor) on behalf of the University. Copies of the contract will thereafter be kept in the Deputy Vice-Chancellor's (RIL) custody and the Director of Research, Innovation and Technology for the purposes of monitoring of funds and project activities.
- d) Principal Investigator (PI)/institutional representative shall undertake to submit three (3) copies of quarterly reports consisting of technical and financial to the DVC (RIL) through the Director, Research, Innovation and Technology.

### **13. RESEARCH FELLOWSHIP**

There shall be Research Fellowship in the division of research, innovation and linkages for the purposes of supporting research fellows. The research fellows shall have a graduate degree, such as a master's (e.g. Master of Science, Master of Arts) or doctoral degree (e.g. Doctor of Philosophy, Doctor of Science). The research fellows will work under the direction of the Deputy Vice Chancellor (RIL) and will be responsible for research projects, write funding applications, edit draft applications for accuracy, completeness and clarity and submittal of all applications in accordance with grant/loan requirements, review, and edit departmental and/or institutional grant proposals; conduct research for potential funding sources and maintain databases.

The Research fellows shall further support academic staff and administration in developing research proposals and may have a minimal teaching load in a relevant faculty. The terms of service will be as per existing University policies on equivalent terms of service for permanent and contractual employees with appointment letters processed in the division of Administration, Planning and Finance.

#### **13.1. POSTDOCTORAL FELLOWSHIP**

There shall be postdoctoral fellowship operating under the direction of Deputy Vice Chancellor-Research, Innovation and Linkages for purposes of supporting Postdoctoral fellows. Individuals in this category will receive training while engaged in research projects funded by grants he/she has personally applied for and obtained from either governmental or nongovernmental sources. A postdoctoral fellow may not necessarily be an employee of the University, and while able to participate in a special healthcare benefit plan, he/she is not eligible for other University benefits, if not employee. The postdoctoral fellows will be eligible to participate in establishing and ongoing collaboration programs.

#### **13.2 VISITING UNIVERSITY RESEARCH CHAIR**

This shall be a selective and privileged appointment as associate or full professors to individuals who will not be employees of the University and who may be from the industry or research institutes locally or internationally. The research chairs will work under the direction of the Deputy Vice Chancellor (RIL).

The individuals will be of exceptional scholarship and/or experienced professionals who wish to conduct research and/or lecture at Machakos University. The main goal of the research chair program will be to strengthen and improve research and innovation capacity of Machakos University to producing high quality postgraduate students, research, and innovation outputs. The chairs will be created to recognize outstanding scholars who are acknowledged by their peers as upcoming leaders in their research field. A candidate for the University research chair will be appointed as per the existing University human resource policy and procedures prevailing for the level.

A competitive candidate shall be one who meets and surpasses requirements of an associate or full professor, rises above his or her colleagues in the same rank and shows the highest development potential compared to other nominees. Individuals in this category will lead a team of researchers and provide mentorship to younger researchers in projects funded by grants he/she has personally applied for and obtained from either governmental or nongovernmental sources. Where applicable for local institutions with Memoranda of understanding with Machakos University, the ability of Machakos University postgraduate students to be nested and access latest technology and equipment in the laboratory of the applicant will be a major boost.

The individuals will conduct research and teach a course or mentor a team in one of the Machakos University's thematic projects. In addition, the Chair may deliver public lectures, give seminar presentations and participate in conferences where Machakos University will have to be dully recognized.

**Research Chairs will be tenable at two Tiers:**

**Tier 1** will be for established researchers recognized internationally as a leader in their field and/or have received substantial international recognition for their research contributions. Candidates from abroad that are willing to spend at least 50% of their time in Kenya with Machakos University as their base are eligible for consideration, at the Tier 1 level, with the intention of attracting candidates, including scholars and Kenyans in the Diaspora, who have distinguished themselves in their research fields.

**Tier 2** will be for established researchers, generally under the age of 40 (forty) years with a strong research, innovation and human capital development output trajectory, and the



potential to attract large grants and to achieve substantial international recognition for their research contributions in the next five to ten years.

#### **14.MANAGEMENT OF RESEARCH FUNDS**

- a) Research funds shall be managed through a Grants Section under Deputy Vice Chancellor (RIL);
- b) The administration and management of funds shall follow the University's financial and procurement procedures except where the donor has specified otherwise;
- c) All research funds shall be processed through the Division of Research, Innovation and Linkages;
- d) Research funds shall only be disbursed for activities of the project, with the approval of the Principal Investigator, the Finance officer and DVC (RIL);
- e) No funds shall be disbursed if the researcher has not surrendered the previous advances (imprest) related to that particular project activity;
- f) Externally funded research shall be administered in conformity with the approved proposal, work plan, and budget and in accordance with the financiers' approved procedures;
- g) The Directorate will monitor and evaluate projects to ensure proper utilization of funds and research output;
- h) The University shall normally levy an administrative fee of 15% on all external research grants awarded for the general administrative expenses incurred by the University. The expenses shall include monitoring and evaluation of research projects, mailing charges and honoraria to research proposal reviewers. In addition, the levied sums shall go towards awards for publications, innovations, and attraction of external funds and to support centres of research excellence.

#### **15.PROCEDURES OF REQUISITION FOR FUNDS**

- a) The Principal Investigator shall submit a request for an advance to cover research expenses as per approved work plan and budget.
- b) After the initial advance, no further advance shall be made unless the previous advance is fully accounted for.
- c) Failure to provide satisfactory progress reports to the Directorate of RIT and account of funds may result into termination of the award and refund demanded.
- d) Any unspent research funds shall be returned to the University Research Account.

- e) Research funds shall be released by the University in accordance with the University financial procedures.
- f) In case of external research funding, project funds will be released in accordance with the approved work plan and budget.

## **16. PRINCIPAL INVESTIGATOR'S RESPONSIBILITIES**

- a) Any Machakos University staff who is designated as Principal Investigator as a result of his/her participation in the writing of the proposal and the implementation of the project and being recognized as such as per the arrangements of the proposal shall be recognized as such by the University.
- b) Principal Investigators shall be responsible for:-
  - i. Implementing the project within the agreed timeline for the award of grant in case of an internally-funded research project.
  - ii. Proper project management that will keep the research on track.
  - iii. Adhering to the principles and rules as laid down in the research policy.
  - iv. Ensuring timely submission of required reports.
  - v. Encouraging collaborators in the project to be aware of good research and data management practices.
  - vi. Creating awareness of the ethical implications of research and advising collaborators accordingly.
  - vii. Ensuring project budgetary and financial discipline is adhered to as per the Memorandum of Understanding with the funding Agency.
- c) In the event that the Principal Investigator retires, changes employer or otherwise, the funds will be managed as agreed after consultation with the sponsors and the other research team members.
- d) In the event that the Principal Investigator retires, changes employer or otherwise, no research funds received by the University for the project shall be transferred to the retired staff or to the new employer of the Principal Investigator unless under a mutual agreement between the principal investigator, the donor and the University.

## **17.OBLIGATION OF THE UNIVERSITY TO THE RESEARCHERS**

- a) All researchers shall be guaranteed their academic freedom of intellect speech and association.
- b) A researcher or his/her collaborators shall not be discriminated or stigmatized on gender, creed, race, medical grounds or disability.
- c) A researcher will be accorded the rights and privileges to carry out research in his/her areas of competence as per available resources.
- d) All basic and applied research work shall be based on original ideas which will not be in conflict with human rights, dignity, health or ethical standards.
- e) The University does not discriminate any nationality, organization, or source of research funds provided it is not repugnant in law and violate the dignity of human kind.
- f) The University encourages and collaborates with the local, regional and international organizations to be involved in research for development.
- g) The University supports the establishment of industrial partnerships in research or in its other areas of competence.
- h) All research participation agreements shall be signed after having been advised on legal matters by the University Legal Officer.

## **18.RESEARCHERS CONDUCT**

- a) A researcher shall not engage in acts that include, but not limited to, dishonesty, fraud, embezzlement of research funds, falsification, plagiarism, and non-compliance with the conditions stated in this policy.
- b) Research shall be conducted in an open manner as required by the Memorandum of Understanding for the particular research.
- c) Ethical clearances shall be obtained from the Research and Ethics Committees where appropriate.
- d) All researchers are expected to observe high ethical standards in the conduct of research and, when relevant, to comply with the obligations imposed by the codes of practice as outlined by the relevant funding bodies.
- e) Any researcher shall take all reasonable steps to ensure that research property that is entrusted to his/her care is adequately protected and used for the intended purpose(s).



- f) Use of human subjects in research shall require the Principal Investigator to obtain permission from an accredited Ethics Committee that shall evaluate the research and ensure that the ethical matters are adhered to.
- g) The Principal Investigator shall further undertake to give tutorials to the subjects about the project, any possible harm, and debriefing them after the conclusion of the research.
- h) Respect of gender, health status, religion and culture shall be upheld by the researchers and their collaborators.
- i) Principal investigators shall be required to arrange for research permits as per the Kenyan government requirement for their research team.

## **19. RESEARCHERS MISCONDUCT**

- a) University disciplinary procedures and/or the relevant Laws of Kenya shall apply when a researcher violates research ethical standards in such a way that he/she seriously harms the reputation of the institution and respondents or compromises the ability of the researcher to function effectively in the work place.
- b) In such cases where the researcher and his/her collaborators violate acceptable research practices, the researcher, together with the collaborators, shall be disciplined according to the university disciplinary measures.
- c) All allegations on research misconduct shall be investigated by the Research and Ethics Committee and reports forwarded to the Research Board of Management for further action and recommendations.

## **20. INTELLECTUAL PROPERTY RIGHTS AND BENEFITS SHARING**

- a) All inventions and innovations emanating from research must be reported to the Deputy Vice-Chancellor, Research, Innovation and Linkages (RIL) through the Directorate.
- b) The Directorate shall assist in the process of patenting in accordance to the major legislation that governs the protection of intellectual property rights such as Industrial Property Act 2001; the Kenya Copyright Act, No. 12 of 2001; The Seeds and Plant Varieties Act, Cap 326; Trade Mark Act, Cap 506; Anti-Counterfeiting Act, 2008 and the Constitution of Kenya, 2010.
- c) Machakos University shall recover the costs incurred in full from accruing revenues before distributing net revenues in the following ratios (or as per the institutional IPR policy):

i.	Inventor(s)	60%
ii.	University Administration Research Kit	10%
iii.	Inventors Department	10%
iv.	School	5%
v.	University Endowment Fund	15%

## **21.REMUNERATION OF RESEARCHERS/PERSONNEL**

### **21.1 ADDITIONAL COMPENSATION**

Researchers/Personnel may receive additional compensation above their standard emoluments as opportunity cost of doing research as per the terms of the funding agency. The payment shall include:

- a) Proportion of project research funds as specified by the university
- b) Any amounts earmarked for salary supplementation as specified in the project budget and as approved by the funding agency, and
- c) All the monies budgeted for emoluments for personnel hired strictly for the given project at the rates approved by the University and the funding agency.

### **21.2 MONETARY AWARD**

In its endeavour to promote research and human resource capacity building, the University shall initiate a special scheme for recognizing and rewarding outstanding performance in research. The award shall be annual and shall be pegged at 5% of the research administrative cost attracted and for a successfully completed project.

### **21.3 RECOGNITION**

The University shall institute a research performance recognition award scheme consisting largely of the following types of awards:

- a) Token Awards to include public recognition with a plaque or certificate;
- b) Share Award for intellectual property ownership in the form of copyrights, patent rights, utility models and trademarks as per the Intellectual Property Policy (IPP).

## **22. PROPRIETORSHIP OF RESEARCH OUTPUTS**

- a) In principle, proprietorship of research results/outputs shall rest with Machakos 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.
- 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.

## **23. DISPOSAL OF TANGIBLE RESEARCH PROPERTY**

- a) Any research equipment of permanent nature shall remain the property of Machakos University or as specified in the contract.
- b) All consumable research material including chemicals and stationery shall remain the property of the relevant department when the research is completed.
- c) All vehicles purchased shall be registered in the name of the University and allocated to the University.
- d) Procedures governing the disposal of university property (obsolete or otherwise) shall apply
- e) Laboratories and Centres established through research/consultancy funds shall be the property of the University and shall be accessible for research by University staff.
- f) Laboratories and Centres established through research/consultancy funds shall primarily be headed by the Principal Investigator who spearheaded their establishment or as directed by the University Management.

## **24. ENVIRONMENTAL HEALTH AND SAFETY**

- a) Researchers shall observe health standards as per the laid down rules and regulations in the Occupational Safety and Health Policy.
- b) All Machakos University staff and/or their collaborators undertaking research shall undertake to ensure that their research environment is safe, healthy, and that laid down procedures and protocols are followed for the handling and release or disposal of potentially hazardous materials to ensure the safety of all persons involved.



- c) All visitors to research laboratories and designated research areas shall be advised to take precautionary measures to reduce any possibility of harm to themselves and the research specimens.
- d) In case of any accidental release of chemical, biological or radioactive materials, the researcher must report the incident to the head of occupational health and safety committee who shall take the necessary precautions to minimize any possible harm to the environment.

## **25. TEACHING AND ADMINISTRATION EXEMPTION**

- a) A lecturer is expected to teach, conduct research and undertake administrative duties and/or a combination of these duties.
- b) Under special circumstances the Vice-Chancellor may grant exemption from teaching or administration or a combination of these duties.
- c) In cases where disproportionate engagement in teaching, research, and administration is needed, the following apportionment of time may apply:-

i. Teaching	60%
ii. Research	20%
iii. Community and Extension	10%
iv. Administration	10%

## **26. MONITORING AND EVALUATION**

- a) The Board/committee responsible for Research for the time being shall be responsible for regular monitoring and evaluation.
- b) For internally-funded projects, the researcher shall submit technical and financial progress reports on quarterly basis to the DVC (RIL) through the Directorate.
- c) For externally funded research, a copy of the progress report shall be forwarded to the DVC (RIL) through the Directorate for onward transmission to the donor or as otherwise agreed in the project.
- d) The Directorate may arrange supervision visits with core peer reviewers to review progress in implementation of projects and ascertain whether the reports reflect reality.
- e) Any project whose progress shall be found unsatisfactory on three consecutive evaluations shall be wound up prematurely to avoid further wastage of resources.

## **27.0. PUBLICATIONS AND DISSEMINATION**

- a) At the end of the research, the Principal Investigator shall submit two (2) hard copies and one (1) electronic copy of the final report and any other publication(s) to the Directorate.
- b) All research papers shall include all names of persons involved in the research and acknowledge the University.
- c) In all publications, the University and the donor, where applicable, shall be acknowledged and receive copies of publications.
- d) Research results shall be disseminated through Journals, workshops, conferences and seminars.
- e) The Directorate shall endeavour to build research capacity through holding workshops and seminars; taking part in exhibitions and other academic forums to train researchers on preparation of research proposals, project management, and publishing, presentation of research findings and maintenance of records.
- f) Research articles should be submitted to the library and the Directorate of Performance Contracting.

#### **27.1. FACILITATION/SUPPORT FOR DISSEMINATION**

- a. The following dissemination fora will be supported under this policy:
  - i. International conferences, workshops, colloquia and symposia;
  - ii. Regional conferences, workshops, colloquia, and symposia;
  - iii. National conferences, workshops, colloquia and symposia.
- b. To be eligible for facilitation, an applicant must fulfil the following requirements:
  - i. Letter of acceptance of an abstract and/or invitation to attend the conference, workshop, colloquium or symposium;
  - ii. The abstract;
  - iii. Covering letter.
- c. The University will provide support as itemized below:
  - i. Air ticket, or
  - ii. Conference registration fees, or
  - iii. Subsistence allowance (per diem) up to five days.
- d. Application Procedure:
  - i. All applications specifying the type of facilitation should be addressed to the Deputy Vice-Chancellor (RIL), through the Chair of Department and Dean of the relevant School.
  - ii. The applicant must attach copies of letter of acceptance of an abstract/letter of invitation to present a paper, and the abstract.

- iii. For conference registration fees, the applicant must attach an official communication from conference organisers on the fees.
- iv. For subsistence support, an applicant shall be facilitated as per the prevailing per diem rates for the place of the conference.
- e. Using the following guidelines, the BRIT shall review/vet the applications for support and make recommendations to the DVC (RIL), who shall write to the applicant and advise them accordingly,
  - i. An applicant should be supported once in a year subject to availability of funds;
  - ii. The conference, workshop, colloquium, or symposium should be academic and within the research priority areas as spelt out by Machakos University, NACOSTI etc ;
  - iii. In case of joint papers, only the lead author/principal researcher will be facilitated;
  - iv. In case the applicant has requested for an air ticket, the airline with the lowest airfare will be selected;
  - v. Applicants who have funding from other sources for the same aspects of the conference will not be facilitated by the University.

## **28. RESEARCH PLANNING**

### **28.1 RESEARCH COMMITTEE**

Each School is required to form a research committee, develop and implement its own research plan. These plans are to be drawn up by Deans of Schools in consultation with their respective Chairpersons of Departments.

### **28.2. MONITORING AND EVALUATION OF PERFORMANCE**

- a) Performance shall be monitored against School Research Plans on the basis of the agreed criteria and will advise the Director responsible for research on the outcome of this process.
- b) The research performance of individual staff will also be monitored and evaluated as part of the staff development planning process.
- c) Staff are required to supply full and accurate details of their research outputs (according to the output types and criteria) as established by BRIT on quarterly basis to their Head of Department who will supply the information to the Director (RIT).



- d) The Director (RIT) will forward to DVC (RIL) who will publish list of staff and student publications in categories.

### **28.3 RECRUITMENT AND STAFF DEVELOPMENT**

- a) When new academic staff are recruited, their research record or potential must have a high priority during the appointment.
- b) Academic and research staff members are required as part of the development planning process to prepare a research plan and to review that plan annually in consultation with their Heads of Department. This plan should include such issues as research objectives, opportunities for collaboration, timetables and expected outputs. It should also reflect any special agreements reached regarding the apportioning of teaching, administration, research duties and research training and/or development opportunities for research according to the career stage of the staff member.
- c) Deans and Chairpersons of departments are required to consider workload issues in the distribution of supervisory responsibilities before approving enrolment proposals by postgraduate research students. School Deans shall include supervision responsibilities and workloads according to an agreed formula.
- d) Deans shall ensure that newly appointed staff is familiar with research evaluations, research training and funding opportunities and the importance of publishing in suitable journals, both within the University and without.

### **28.4. POSTGRADUATE STUDENT RESEARCH**

- a) Postgraduate students undertaking research make a vital contribution to the research environment and output of the University. All research will thus be required to be deposited at the office of Director (RIT) for noting.
- b) Deans are responsible for ensuring that the management of postgraduate research degrees complies with the University research policy.

### **28.5. STATUTORY AND ETHICS OBLIGATIONS**

- a) Academic staff are required to carry out their research in compliance with all statutory, ethical and contractual obligations as per the relevant Human and Animal Ethics Policy.



- b) All research projects conducted by staff and students that involve human subjects or animal subjects, including those undertaken as part of a teaching programme, must secure the prior approval of the relevant ethics committee

## **28.6. RESEARCH CENTERS AND INSTITUTES**

The University will establish Research Centers and Institutes to raise the research profile of the University, focus strengths in areas where there is (or the University wishes to develop) a concentration of research excellence, including areas of Applied Research, and to maximize external research funding. This will help to position and promote the University's areas of research excellence and build its reputation as well as serve as vehicles for engaging with other research institutions and industry and facilitate interdisciplinary and multidisciplinary relationships.

## **29. NON- PERFORMANCE OF RESEARCH**

Non-performance of a research that has been undertaken by a member of staff/postgraduate student under any given contract shall be excused to the extent that such performance is prevented by circumstances beyond the reasonable control of the University and/or the donor agency. The circumstances may include: strike, fire, flood, hurricane, lightning, windstorm, explosion, earthquake, catastrophic climatic conditions, act of nature or public enemy, war, insurrection, revolution, governmental regulation, order of decree, uncontrollable delay in transport, inability to obtain necessary materials, failure or destruction, in whole or in part, of machinery or equipment, labour shortage, collision, grave illness, death, discontinuity in supply of power, or any other cause, beyond the reasonable control of the parties. Each case shall be considered on its own merit by the Research.

## **30. TERMINATION OF A RESEARCH PROJECT**

A research project may be terminated under the following circumstances:

- a. If the project is deemed incapable of meeting its objectives and/or is being implemented unsatisfactorily.
- b. If there is evidence of violation of any of the principles and requirements in this policy.

### **31. REVIEW OF POLICY**

This policy shall be reviewed within a period not exceeding three years to capture pertinent research issues of institutional, national and global concern.

### **32. EFFECTIVE DATE**

This Research Policy of Machakos University shall take effect from the date of signing by the Chairman of the University Council.



## MACHAKOS UNIVERSITY

### RESEARCH POLICY PROCESS MAP



