

**MWALIMU JULIUS K. NYERERE UNIVERSITY OF
AGRICULTURE AND TECHNOLOGY (MJNUAT)**



RESEARCH AND PUBLICATION POLICY

JANUARY, 2024

FOREWORD

Mwalimu Julius K. Nyerere University of Agriculture and Technology (MJNUAT) has four broad based mandates; including training, research, consultancy and outreach service, as well as production. Historically, the 2nd generation universities put emphasis in teaching/training as their primary mission and treat outreach and research as secondary mandates. In its quest to brand herself as knowledge centre and as 3rd or 4th Generation University, MJNUAT requires a good foundation in research and outreach service. Two strategic objectives have been identified to improve capacities for research and technology transfer. These are; to develop an institutional supportive framework that promotes research and publication competences and to enhance development of industry responsive research and mechanisms for technology transfer.

For implementation of these strategies, the development of the research policy has been viewed as a necessary undertaking bearing in mind that this is newly established public institution that must have acceptable guidelines in its offing. MJNUAT research policy has thus defined strategies to be adopted not only in promoting research, but also in the development of research agenda that will be linked to those of sector ministries, between the university and private institutions such as NGO's, CBO's FBO's as well as the industry in order to make research initiatives responsive to societal needs and providing a platform for technology diffusion.

For each research strategy, policy issues, objectives, statements as well as operational procedures have been clearly defined. Moreover, internal procedures for approval and monitoring of research process, research performance rewarding, ethics and integrity in consideration of research have been taken aboard in the policy. It is our expectation that the contents of this policy will be useful to researchers, communities, the industry and funding agencies.

ABBREVIATION AND ACRONYMS

CBOs	Community Based Organisations
DVC-ARC	Deputy Vice Chancellor Academics, Research and Consultancy
DVC-PFA	Deputy Vice Chancellor Planning, Finance, and Administration
FTE	Full Time Equivalency
FBOs	Financial Based organizations
GDP	Gross Domestic Products
HRM	Human Resource Management
ICT	Information and Communication Technology
IPP	Intellectual Property Policy
IPR	Intellectual Property Right
LGAs	Local Government Authorities
MDGs	Millennium Development Goals
MJNUAT	Mwalimu Julius K. Nyerere University of Agriculture and Technology
MKUKUTA	MkakatiwaKukuzaUchuminaKupunguzaUmaskini Tanzania
MoEVT	Ministry of Education and Vocational Training
NGOs	Non-Government Organisations
NSGRP	National Strategy for Growth and Reduction of Poverty
PPP	Public Private Partnership
QAB	Quality Assurance Bureau
R&D	Research and Development
RAU	Research Administration Unit
RPC	Research and Publication Committee
SME	Small and Medium Enterprises
SRC	Senate Research Committee
STI	Science, Technology and Innovation
VC	Vice Chancellor

TABLE OF CONTENTS

FOREWORD	1
TABLE OF CONTENTS.....	3
CHAPTE ONE.....	6
INTRODUCTION	6
1.1 Background.....	6
1.2 MJNUAT Vision.....	7
1.3 MJNUAT Mission.....	7
1.4 Objects.....	7
1.5 Aspiration	7
1.6 Core Values	7
CHAPTER TWO	8
OBJECTIVES OF THIS RESEARCH POLICY.....	8
2. 1 Rationale for the Research Policy and Guideline	8
2.2 The Goal of the Research Policy.....	8
2.2.1 Objectives of the Policy.....	9
2.2.2 The Scope of the Policy.....	10
2.2.3 Guiding Principles	10
CHAPTER THREE	11
RESEARCH POLICY	11
3.1 MJNUAT Research Priorities.....	11
2.1.1 Policy Issue	11
2.1.2 Policy Objective.....	11
2.1.3 Policy Statement	11
2.1.4 Operational Procedures.....	12
2.2 Source of Research Funding and Resource Mobilization	13
3.2.1 Policy Issue	13
3.2.1 Policy Objective	13
3.2.2 Policy Statement.....	13
3.2.3 Operational Procedures	13
2.3 Research Planning and Management	15

2.3.1	Policy issue	15
2.3.2	Policy Objective	15
2.3.3	Policy Statement	15
2.3.4	Operational procedures	15
3.4	Research Training.....	16
3.4.1	Policy Issue	16
3.4.2	Policy Objective	16
3.4.3	Policy Statement.....	16
3.4.4	Operational Procedures	17
3.5	Research Quality Assurance	18
3.5.1	Policy issue.....	18
3.5.2	Policy Objective	18
3.5.3	Policy statement	18
3.5.4	Operational Procedures	18
3.6	Research Support Environment	19
3.6.1	Policy Issue	19
3.6.2	Policy Objective	19
3.6.3	Policy Statement.....	19
3.6.4	Operational Procedures	20
3.7	Publication and Dissemination of Results	21
3.7.1	Policy Issue	21
3.7.2	Policy Objective	21
3.7.3	Policy Statement.....	21
3.7.4	Operational Procedures	22
3.8	Research Culture.....	22
3.8.1	Policy issue.....	22
3.8.2	Policy objective	23
3.8.3	Policy Statement.....	23
3.8.4	Operational Procedures	23
3.9	Internal Procedures for Approval, Control, and Monitoring of Research Process	24
3.10	Collaborative Research.....	26
3.11	Research Performance Rewarding.....	27
3.12	Subsistence, Per-diem, other allowances, reimbursements and incentives	27
3.14	Contributions to the Research Administrative Infrastructure.....	29

3.15 Sharing of Research Resources	29
3.16 Ethics and Integrity Considerations in Research.....	30
3.17 Research and Publications Committee.....	30
3.18 Operational Procedures on ethics and integrity.....	31
3.19 Cross-Cutting Issues	32
3.19.1 Gender Mainstreaming.....	32
3.20 Ownership of Research Outputs	33
3.21 Use and Disposal of Research Project Resources	33
3.22 Impact of Research	34
3.23 Application and Review	34
CHAPTER FOUR.....	36
STRATEGIES FOR IMPLEMENTING RESEARCH POLICY	36
4.1 Fundamental Strategy	36
4.2 Strategy for Sourcing of Funds and Quality Assurance	37
4.3 Research Management.....	38
4.3.1 Identification of Sources and Management of Research Resources	38
4.3.2 Research Data Bank and Dissemination of Research Results.....	39
4.5.3 Research Quality Management	39
4.4 Operational Procedures.....	40
4.5 Development of Comprehensive Implementation Strategy-Way Forward	41
Appendix I: Guidelines for Approval of Research Proposals	42
Appendix II: Format for Research Project Registration.....	48
Appendix III: Standard Research Budget Format	49
Appendix IV: Sample Research Contract Format	1
Appendix V: Research Progress Reporting Form	3
Appendix VI: Format for the Final Research Report	5

CHAPTE ONE.

INTRODUCTION

1.1 Background

Mwalimu Julius K. Nyerere University of Agriculture and Technology is a Public University established in honour of the late Mwalimu Julius K. Nyerere, Father of the Nation and first President of the United Republic of Tanzania.

The Fourth Phase Government decided to establish a University that will promote the philosophies of the late Mwalimu Julius K. Nyerere by branding itself as a "real-time" industry- and community-responsive Science, Technology, and Innovation (STI) generation, and transfer center. The University is thus set to be STI knowledge center that values research generation and transfer, thereby bridging the gaps between research and extension/development. It thus strives to spearhead industrial/sectoral and community development through promoting effective use of STI and being exemplar in franchising technologies and innovations.

The primary focus of MJNUAT is agricultural programmes as well as science and technology disciplines. In its resolve to hasten the use of science and technology for development, the university also brings aboard, science education as well as social science programmes. This is based on the fact that, the use of science and technology in development programmes requires involvement of multi-stakeholder actors.

The university aspires to achieve the above by configuring its curricula, mode of delivery and practical training in a manner that promotes and fosters acquisition of adequate knowledge and technical skills; with the view of generating highly technically skilled graduates that can serve as game changers in industrial, sectoral and community development. The university is also geared at offering technical training programmes as well as mounting various forms of business skills empowerment to stakeholders, notably youths and Small scale Enterprises (SME) operators.

The other focus area is generation of graduates with adequate business skills and competencies to enable them venture into commercial farming, agro-processing and other forms of science-based

ventures including agri-entrepreneurship. This will be achieved through mounting various forms of business incubation and cluster linkage initiatives. The university will also foster this mandate by forming an Entrepreneurial Service Support Unit that will help graduates to be navigated through their business ventures by offering requisite business mentor-ship support.

1.2 MJNUAT Vision

To become an innovative science and technology center that serves as an engine for development.

1.3 MJNUAT Mission

To catalyze societal and industrial development through training, generation and diffusion of technologies and, delivery of outreach services.

1.4 Objects

To advance contemporary knowledge to students and other stakeholders, generate and make available information, technologies and innovations emanating from research, industrial development and providing advisory services to the community.

1.5 Aspiration

Working towards generation of the product that is able to generate jobs for themselves and create employment for others. We also work for and through the communities and other players.

1.6 Core Values

Our Corporate values anchor on academic and social integrity, transparency, commitment, and responsiveness; academic freedom; knowledge generation and working for communities.

CHAPTER TWO

OBJECTIVES OF THIS RESEARCH POLICY

2. 1 Rationale for the Research Policy and Guideline

Being a new university, there is currently no operational research policy to provide guidance to researchers, research administrators, management, research collaborators, funders, and research and innovation activities. Given the significant role of R&D in national development, it is imperative that MJNUAT formulates a Research Policy which is in line with its Cooperate Strategic Planning (2016-2021), National Research and Development Policy (2010), National Higher Education Policy (1999), National Strategy for Growth and Reduction of Poverty (NSGRP) or MKUKUTA, Natural Resources Policy, Millennium Development Goals (MDGs) and other national policies. The policy will help to ensure that, the scientific and technological knowledge generated by the University will be relevant and responsive to the socio-economic needs of the country. Moreover, this policy will improve research organization and management, stimulate research resource sourcing, guide the relevance and responsiveness of research, and ensure quality and ethical conduct. This policy further emphasizes on innovation, dissemination, and commercialization of research results that are key in bringing about economic growth while at the same time solving societal problems.

2.2 The Goal of the Research Policy

The overall aim of this Research Policy is to strengthen research capacity and output, and increase the contribution of MJNUAT to the world of knowledge and innovation. The goal is to develop and sustain adequacy in national capacity to participate in agricultural, engineering, science and technology, and allied research disciplines to respond to challenges of sustainable development and better management of natural resources, nature and the environment; leading to wealth creation and sustainable people's development.

2.2.1 Objectives of the Policy

In line with the National Research and Development Policy (2010), National Higher Education Policy (1999), National Strategy for Growth and Reduction of Poverty (NSGRP) or MKUKUTA, Natural Resources Policy, Millennium Development Goals (MDGs), National Science and Technology Policy (1996), National Fisheries Policy (2015), National Agricultural Policy (2013), National Livestock Policy (2006) and MJNUAT Corporate Strategic Plan (2016-2021); the University Research Policy aims at inculcating a research culture among staff, students and collaborators by;

- (a) Ensuring that research activities are in line with the vision, mission, objects, core values and aspirations of the institution and also respond to national, regional and international research priorities.
- (b) Adhering to research quality assurance mechanism, control, and proper management;
- (c) Minimizing adverse environmental impact of research projects
- (d) Creating a conducive environment for research and innovations
- (e) Ensuring storage, dissemination and publication of research results are user-friendly within and outside the University through regular participation in relevant fora at national/regional and international levels
- (f) Nurturing research culture and ethics, including protection of research subjects, safeguarding the environment, acknowledging work done by others, copyrights and patents, integrity and honesty in arriving and handling research results.
- (g) Promoting the prioritization of research activities towards addressing challenges of industry and society
- (h) Enhancing the marketing skills of the university and its academics so as to make full utilization of the research expertise to address the needs of both the public and private sectors. This is also in view of the increasing competition for the scarce research funds available
- (i) Improving financial packages for research and innovations projects

2.2.2 The Scope of the Policy

The policy will address issues pertaining to Research and Innovation including patents, copyright, intellectual property rights (IPR), Publication and commercialization of intellectual property. The policy shall apply to all staff and students of MJNUAT and all users of its diverse resources for research.

2.2.3 Guiding Principles

- (a) Responsiveness to needs and problems of the socio-economic, industry and technological advancements
- (b) The availability of facilities, services and other resources of the University
- (c) The holistic approach and private sector involvement
- (d) Academic freedom and professionalism
- (e) Interdisciplinary Multi-sectorial approach
- (f) An academic environment conducive to research
- (g) Regional and International Integration
- (h) Refraining from the abuse of supervisory authority
- (i) Research competence and capability
- (j) Refraining from discrimination
- (k) Refraining from sexual harassment
- (l) Research ethics and integrity
- (m) Respect for the individual
- (n) Social responsibility
- (o) Safety and health
- (p) Advancing knowledge
- (q) Justice and benevolence
- (r) Competitiveness

CHAPTER THREE

RESEARCH POLICY

In order to address national and regional development needs as reflected in the National Research and Development Policy, 2010 and in line with MJNUAT Corporate Strategic Plan (2016-2021), it is necessary for MJNUAT to work closely with other stakeholders in order to input into national and regional policies and priorities. In this regard, MJNUAT research priorities and other related issues are discussed hereunder.

3.1 MJNUAT Research Priorities

2.1.1 Policy Issue

The MJNUAT research priorities are not on place. The Research Policy recognizes that institutional research agenda are instrumental in orienting towards the set research goals. Research agenda need to base on the institution's vision, mission and corporate strategic plans. It is expected that, the following strategies will help formulate and operationalize the research agenda.

2.1.2 Policy Objective

To ensure that researches conducted at MJNUAT are guided by the institutional and national priorities that addresses the societal problems.

2.1.3 Policy Statement

The university shall:

- (a) Develop MJNUAT Research Agenda
- (b) Ensure that the research agenda are in line with institutional and national priorities.

2.1.4 Operational Procedures

It is necessary for the university to work closely with other stakeholders in order to influence the national and regional policies and priorities. In this regard, the University shall;

- (a) Ensure that Colleges/Schools/Institutes/Departments frame research priorities that will feed into the university research agenda.
- (b) Ensure that priorities recognised reflect national research objectives, priorities and relevant international trends.
- (c) Ensure that the research agenda shall stimulate both basic and applied research.
- (d) Ensure that relevant research programs for the different units are defined in consultation with staff at all levels. These have to be in line with national development objectives and priorities, relevant international trends and available capacity at the University.
- (e) Adopt a proactive role in influencing the national/regional development objectives and priorities and therefore the research agenda in relevant sectors in close collaboration with other stakeholders;
- (f) Require that the research programme developed to be approved by DVC-ARC
- (g) Introduce University annual research workshop that will receive and review progress made by each College/School/Institute/Centre in the implementation of the research programme;
- (h) Seek to participate in relevant national and international meetings for the implementation of the research programme;
- (i) Ensure that basic research receives an appropriate priority in the development of research agenda
- (j) Set up the institutional framework for the establishment and operation of Research Centers of Excellence within the University.

2.2 Source of Research Funding and Resource Mobilization

2.2.1 Policy Issue

Funding is the most serious limitation in research performance. The policy realizes the importance of securing adequate funds for staff members to conduct meaningful research, to attend national and international meetings, and to contribute to the research income of the university. Strategies highlighted hereunder will improve funding for research.

2.2.2 Policy Objective

To ensure availability of sufficient research funding at the University through increased awareness of funding opportunities, increased grant applications and motivating successful applicants.

2.2.3 Policy Statement

The University shall;

- (a) Facilitate the formation of multidisciplinary research teams that will apply for research grants from various funding agencies and continue to solicit research funds from potential funding agencies.
- (b) Ensure that academic staff, researchers and other stakeholders receive information about research funding opportunities from time to time.
- (c) Establish an incentive package for awarding researchers who succeed in winning research grants.

2.2.4 Operational Procedures

Mwalimu Julius K. Nyerere University of Agriculture and Technology recognizes that for sustainability and significance, main source of research funds shall still be the Government of the United Republic of Tanzania. The guiding research funding benchmark is 1% of GDP in line with the provisions of the Article 3.6 of the National Research and Development Policy 2010. In this regard, the university shall;

- (a) Encourage individual researchers, research groups colleges/schools and institutes to solicit funds from alternative sources.
- (b) Provide general information to staff on research opportunities, sources of funding, and mode of applications.
- (c) Introduce a separate budget line for research funding for all academic units from departmental level, coordinated and presented to higher organs within the University by the directorate responsible for research
- (d) Enhance visibility/recognition of MJNUAT by national and international institutions to promote formation of research consortiums.
- (e) Establish collaboration with other research institutions for an increased share of the national financial resources allocated for research.
- (f) Reward researchers who succeed in winning grants by awarding them 2% of the administrative fee from the research grant as motivation.
- (g) Continue to solicit research funds from sources other than public sources including international and local sources, both public and private. Solicitation of funding will be encouraged and facilitated at individual, centre, departmental, institute, school, college and university levels
- (h) Establish a Grant's Office, and the proposal writing fund to facilitate and support writing and submission of institutional grants to potential funding organs.
- (i) Subscribe to databases that provide information on funding opportunities.
- (j) Require that all research projects contribute 10% of the awarded grant, which will be used for overhead/indirect costs and financing seed grant for young researchers.
- (k) Encourage visiting Researchers with research grants to come and conduct their research in the Institutions' laboratories/facilities.
- (l) Advocate performance-based research funding from the government. Such funding could take into account the success in attracting research students, as a means to boost research income from a diversity of sources, and in the quality and output of its research publications

2.3 Research Planning and Management

2.3.1 Policy issue

Research coordination unit needed to be on place. Research challenges are multi-dimensional and hence require multidimensional solutions. This cannot be done without a proper organ that will coordinate and harmonize all research activities including planning, management and reporting. Research has to be performed within a framework, which defines among others, targets, responsibilities and indicators. A close coordination and monitoring of research activities should be done under the established guidelines.

2.3.2 Policy Objective

To ensure that MJNUAT has an organ and mechanisms in place for coordination of all research activities through the established guidelines.

2.3.3 Policy Statement

The University shall:

- (a) Mandate the DVC-ARC to coordinate all research activities including planning, proposal writing, searching for sources of funding, research implementation, monitoring and evaluation and reporting of research results.
- (b) Establish the Research Committee to assist DVC-ARC in research coordination.
- (c) Establish subcommittees at School and Department levels to coordinate research activities

2.3.4 Operational procedures

The University shall;

- (a) Support and equip a core office responsible for the overall research coordination at the University level

- (b) Enable the establishment of research administration infrastructure linking the Directorate of research with colleges, schools, institutes or departments. The administrative infrastructure shall aim at facilitating the research process and creating transparency in the whole research activities
- (c) Make sure that staff are fully involved in the research planning process and maintain a good balance between teaching, research and consultancy
- (d) Reinforce the capacity for research planning and management at all levels
- (e) Create a mechanism by which academic staff members are motivated to conduct research
- (f) Create research centres and research groups in each academic unit.

3.4 Research Training

3.4.1 Policy Issue

Trained and competence research personnel are not on place. The MJNUAT policy realizes that the success of research depends largely on the adequacy and suitability of human resource. The level and discipline of training, the research knowledge, the motivation, innovativeness and adaptation to the dynamic world of science are essential ingredients of a successful research team. In addition, research students are a major resource, underpinning much of the leading edge research necessary for meaningful application in national development, providing on-going renewal of the research and academic workforces. The strategies highlighted hereunder will improve the productivity of research personnel.

3.4.2 Policy Objective

To make sure MJNUAT has the right number and right kind of researchers with adequate competence at the right time to ensure efficient and effective research productivity.

3.4.3 Policy Statement

The university shall;

- (a) Recruit adequate number of researchers who are well trained in disciplines that are appropriate for effective and successful adherence to university mission and vision.
- (b) Train young researchers to become future research team leaders.
- (c) Establish an incentive scheme to strategically retaining good researchers thus ensure continuity and prosperity of research programs.

3.4.4 Operational Procedures

The university shall:

- (a) Reinforce and underscore research training at both undergraduate and postgraduate levels through ensuring that there is a significant, relevant and quality research-training component in the curricula and develop research skills training programs for students and staff.
- (b) Make and promote opportunities for post-doctoral scholars and research associates within academic units and develop means to include research grant proposals as a component of training
- (c) Emphasize that staff training on research becomes one of the criteria when considering approval of research proposals
- (d) Facilitate staff in writing fundable proposals; hence, research methodology courses be integrated into continuing education
- (e) Make a formal increased government funding of research degree programmes through specific budgetary allocation for scholarships at masters and doctoral degree as well as post-doctoral levels to be conducted at the MJNUAT
- (f) Devise an allocation of research training scholarships to different academic units on the basis of performance and demand.
- (g) Establish a researcher retention scheme that can attract research talents at the University.
- (h) Involve both undergraduates and postgraduate students in research activities.
- (i) Encourage post-doctoral and research associate programmes as well as updating and expanding researcher skills continually through strategic international exposure and linkages

3.5 Research Quality Assurance

3.5.1 Policy issue

The quality of research activities and research outputs are questionable. Management of research has to ensure that it is well planned and systematic to provide adequate confidence that research output satisfies the specified requirements and standards for quality in line with MJNUAT Quality Assurance Policy.

3.5.2 Policy Objective

To ensure that all research activities and outputs adhere to the prescribed internal and external requirements and standards.

3.5.3 Policy statement

The University shall establish MJNUAT Quality Assurance unit which will work collaboratively with Research Unit to oversee the quality of research activities and outputs

3.5.4 Operational Procedures

The university shall:

- (a) Develop and disseminate research quality guidelines.
- (b) Ensure that research application is in line with the guidelines.
- (c) Ensure that approval of research applications takes into consideration, research quality checklist.
- (d) Monitor quality and number of publications resulting from research done by staff of various ranks.
- (e) Monitor the target group for dissemination of research results.
- (f) Conduct surveys to obtain feedback on quality and value of research results.
- (g) Develop and disseminate standard quality indicators for research resources solicitation.
- (h) Conduct peer review of research performed at MJNUAT at an interval of not more than five years.

3.6 Research Support Environment.

3.6.1 Policy Issue

Research support environment for both staff and students to conduct researches are doubtful. The necessary research environment necessitates appropriate remuneration to researchers, research funds, research facilities such as modern information management system, access to web based database and opportunities for the dissemination and publishing of research information. The policy recognizes that enhancing the research facilities and fostering optimal use of available facilities will ensure the enabling environment for enhanced research activities at MJNUAT, that will result into growth and production of findings that are useful for socio-economic development in Tanzania and Sub-Saharan Africa

3.6.2 Policy Objective

To establish an environment that will stimulate and promote research productivity through provision of incentives to researchers, availability of communication facilities to allow access to and sharing of information as well and promote diffusion of research findings. Moreover, the university shall ensure that it has appropriate quantity and quality of research facilities that will sustain productive and dynamic research.

3.6.3 Policy Statement

The university shall:

- (a) Strive to provide adequate and appropriate research facilities.
- (b) Promote optimal utilization of available research facilities and equipment.
- (c) Make sure that research facilities and equipment are well maintained for optimal performance and sustainability.
- (d) Create and maintain an enabling research environment that promotes innovation, production and stimulate exchange of ideas within the institution and with the outside world.
- (e) Strive to commercialize research findings

3.6.4 Operational Procedures

The University shall:

- (a) Allot physical space for research facilities and infrastructures e.g. laboratory, Research farms
- (b) Work towards the creation of a stable and conducive internal research environment. This shall include the provision of research administration allowance and maintenance of equipment and support for purchase of basic consumables.
- (c) Provide research support services that include the provision and continuous improvement of modern management information systems and facilitate access to international literature and databases through the Research and Publication Unit, Information Communication Technology (ICT) and Library Services
- (d) Provide basic financial management support and training to research coordinators as well as personnel in key research administrative units.
- (e) Make sure that tools and equipment for facilitation of research activities are available and of acceptable quality.
- (f) Seize opportunities for laboratory capacity building availed by local and foreign institutions and private companies.
- (g) Encourage equipment and incentivize proposals that budget for laboratory equipment.
- (h) Encourage the sharing of research laboratories and equipment's for optimal use.
- (i) Ensure that capacity to maintain the state of the art equipment is developed e.g. through enhanced training of technical staff and users.
- (j) Ensure that research equipment and other resources acquired during the life of any research project becomes the property of the University at termination of the project.
- (k) Provide guidelines for use of equipment (including bench fees) and disposal of such resources.
- (l) Establish an inventory of all research facilities including equipment at the institution.
- (m) Encourage companies (foreign and local) to build research facilities at MJNUAT.
- (n) Publicize its research activities and seek ways to make its research findings available to the wider community.
- (o) Support Colleges/Schools/Institutes/Departments to formulate research agenda in their

field of specialization based on the Institution's Strategic Plan.

- (p) Link researchers to international and internal forums to establish networks and collaborative activities.
- (q) Strengthen linkages with Non-Governmental Organizations (NGOs), Community-Based Organizations (CBOs), and Local Governmental Authorities (LGAs).
- (r) Recognize researchers for their respective work through incentives such as awards and promotion.
- (s) Provide support for publication of staff and students research in reputable journals as well as publication and distribution of the MJNUAT Research Bulletin
- (t) Review and monitor the curricula to inculcate a research culture among the students.
- (u) Establish effective mechanisms for assisting researchers to obtain equipment and supplies

3.7 Publication and Dissemination of Results

3.7.1 Policy Issue

The research outputs may not rich to the targeted beneficiaries. By their very nature, universities are dedicated to the dissemination of research results, which reflects the university research contribution to public and industry. Moreover, universities are occasionally requested by Government or other bodies to perform research where the results may be politically sensitive. If this happens, the university should not sign contracts, which permit an indefinite embargo on publication, so a time limit should be included.

3.7.2 Policy Objective

To promote and enhance the diffusion of MJNUAT research outputs (publications and innovations) to target beneficiaries.

3.7.3 Policy Statement

The University shall;

- (a) Promote and encourage the publication of research by Staff and Students.
- (b) Support and provide mechanisms for diffusion of innovations through technology transfer and commercialization
- (c) Facilitate media and conferences for debates and discussion of research results both within and outside the institution.
- (d) Provide guidelines for the publication of research results.

3.7.4 Operational Procedures

The university shall;

- (a) Create platforms for staff and students to disseminate research outputs such as seminars and locally hosted journals, newsletters and bulletins (both hardcopy and electronic).
- (b) Support MJNUAT members to present/display research findings and innovations in external forums such as exhibitions, workshops and conferences.
- (c) Encourage and support processes for patent applications, technology transfer and incubation of innovations.
- (d) Support Schools/Departments to organize regular conferences.
- (e) Support regular public presentations and debates on topical areas of national or international concern.
- (f) Require staff and students to publish their findings in peer-reviewed journals.
- (g) Require all research reports to be deposited in the University Library.

3.8 Research Culture

3.8.1 Policy issue

Little or no research culture infused into staff, students and other stakeholders. Research culture reflects the values, ideals and beliefs about research within the institute; and reflected in behaviors, actions and symbols of research in the organization.

3.8.2 Policy objective

To ensure that MJNUAT develops a performance enhancing organizational research culture which is manifested by shared or common research values, behaviors and perceptions which will be passed from one generation of researchers and students to the next.

3.8.3 Policy Statement

The university shall establish an environment that will promote the development and maintenance of common or shared research values and behaviors that will catalyze productive research.

3.8.4 Operational Procedures

Research culture is one of the critical components in contemporary research practices. It cuts across several variables, which may include motivation to do research, accountability in reporting, ethical issues and nurturing of the junior researchers within the institution. The University shall:

- (a) Create an environment that will promote the development and maintenance of common or shared research values and behaviors that will catalyze productive research
- (b) Make sure that the institutional vision, mission, research policy and research agenda are well understood and adhered to across the entire university
- (c) Contribute towards nurturing and enhancement of research culture both within and outside the university.
- (d) Encourage and nurture a research culture in which the academic freedom of all researchers is respected and protected, and in which research work and results are protected against any form of ideological expedience
- (e) Learn from other institutions with established research history and effective research cultures and promote research teamwork among MJNUAT staff and other institutions.

- (f) Educate MJNUAT staff, students and research visitors on the research policy and procedures
- (g) Encourage inter-school problem solving sessions or brainstorming.
- (h) Inculcate a research culture through training of undergraduate and postgraduate students in research
- (i) Promote and encourage research teamwork through the creation of research groups, centers and centers of excellence
- (j) Facilitate research proposals-writing workshops or seminars involving all schools.
- (k) Introduce weekly research presentations at departmental level
- (l) Annual research week

3.9 Internal Procedures for Approval, Control, and Monitoring of Research Process

MJNUAT needs to put in place an operational mechanism of conducting research to ensure uniformity in the process. MJNUAT shall therefore:

- (a) Make sure that staff members are aware of the national research agenda and participate in translating it into research agenda of their respective academic disciplines.
- (b) Give priority to projects within the main research agenda when approving research funding. Research proposals should be within the approved agenda.
- (c) Follow one general framework that guides the preparations and approval of research projects, as recommended in Appendix I. The framework addresses the following issues/processes:
 - Initiation of a research project;
 - Formats of research proposals (a sample format is included in Annex II);
 - Scrutiny and approval process for research proposals. This shall focus on quality, relevance, need, soundness and resources requirements (including financial resources). This will clearly spell out the roles and powers of different units within: the relevant University administrative hierarchy (appendix III)

- Planning and budgeting guidelines, including applicable rates for cost estimates (a budgeting format is included in Appendix IV);
 - Financial regulations governing financing of research;
 - Procurement of equipment and consumables; these have to be within relevant University procurement policies and procedures and, in principle, all equipment is the property of MJNUAT;
 - Registration of research projects – whether internally or externally funded;
 - Standard contracts between the funding agency, the University and the researcher(s) (an example of a research contract is included in Appendix V);
 - Progress reporting requirements, control and monitoring (an example of a research progress report format is included in Appendix VI);
 - Regulations regarding employment within research projects; these have to be within approved HRM policies; and
 - Formats for research reports (an example of such format is included in Appendix VII).
- a. Ensure that research proposals are subjected to MJNUAT approval process before being accepted for funding;
- (d) Enter into a research contract with the researcher when the project has been approved. Where there is an interest of joint ownership of research results/output, the contract shall be between the researcher as one party and joint financiers as the other party;
- (e) Examine all contractual requirements before a proposal is submitted to a prospective agency for funding. Hence, all funds obtained through own initiative must be declared to MJNUAT; and
- (f) As far as practically possible, financier proposed contract formats should only be signed where MJNUAT interests are safeguarded.

3.10 Collaborative Research

Mwalimu Julius K. Nyerere University of Agriculture and Technology encourages and permits external research associates to the university and foreign scholars wishing to conduct research in Tanzania and at MJNUAT. In order to obtain such associateship, researchers should apply to the DVC-ARC on prescribed forms indicated in appendix 1 (application for authorization to conduct research in Tanzania). The university shall:

- (a) Encourage joint research where there are potential benefits to the University;
- (b) Recognize two forms of collaboration: external collaboration which will involve a university academic unit and an entity or entities outside the university, and an internal collaboration involving two or more academic units within the University;
- (c) Support external collaboration that will include but not limited to other universities in and outside Tanzania, research institutions, industrial partners and non-governmental institutions;
- (d) Require that external collaborative projects clearly demonstrate the benefits that will accrue to the University or specify deficiencies/gaps within the University that necessitate external collaboration;
- (e) Insist on internal collaborative projects to be inter and multi-disciplinary in nature;
- (f) Ensure that inter and multi-disciplinary research projects are hosted in the academic unit where the principal researcher belongs;
- (g) Require that the hosting department also be the department where the majority of the research activities will be conducted;
- (h) Require that respective components of inter and multi-disciplinary research project be approved by the relevant unit, which is college, school, institute or department;
- (i) Demand that if the implementing units are not in the same school or institute or college, approval at school or institute or college level shall only be necessary in the hosting college/school/institute, but shall be reported to the relevant organs in the non-hosting college/school/institute for noting;
- (j) Endorse that a representative from a department participating in the multi-disciplinary project be invited to the meeting that makes the decision in the host college/school/institute;

- (k) Insist that staff participating in the inter or multi-disciplinary collaborative research project have a responsibility to report the progress to their own department and shall have to report to the hosting department through the principal researcher;
- (l) Ensure that the collaborating academic units make provisions for administrative costs;
- (m) Require that the Corporate Counsel vet collaborative research agreements.

3.11 Research Performance Rewarding

The university shall:

- (a) Create and operationalize a system with transparent criteria/indicators to measure research excellence.
- (b) Assess research performance of individuals, academic units and multi-disciplinary research teams on an annual basis.
- (c) Reward research performance at individual, academic unit and research teams each year. Rewards shall be those that encourage improved performance in research.
- (d) Ensure that research output constitutes a major criterion in the promotion of academic staff.

3.12 Subsistence, Per-diems, other allowances, reimbursements and incentives

Payment of subsistence/per diem and other allowances to researchers and assistant researchers shall be paid according to Government circulars/guidelines or according to the budgetary specifications of the respective grant as agreed upon by the funding agency. The option that offers the highest rate shall take precedence.

3.13 Remuneration and incentives policy and rates

- (a) It is a policy of MJNUAT that members conducting research are not paid salaries from their research grants. However, provisions may be made within the Contract Agreement for salary top-ups as a compensation for extra duty associated with the implementation of the project.

(b) Allowances for research activities will be paid to researchers as follows:

- i. Overnight/Per diem allowance for each night/day away from the duty station will be paid according to Government or donor approved rates/terms provided that the higher rate takes precedence.
- ii. Payments including wages for occasional workers and casual laborers shall be paid according to Government circulars in force.
- iii. A field allowance will be paid at half the above rates if the absence from the campus is more than six hours per day. An absence exceeding 12 hours shall be deemed to be an overnight stay out of duty station.
- iv. An administration research allowance of 10% will be budgeted for every project with the consent of the donor to facilitate writing and submitting of progress reports on time.
- v. Incidental expenses to cover telephones, taxi, airport charges and others will be reimbursed upon submission of receipts.
- vi. The cost of air travel within Tanzania and overseas will be paid at full fare economy rates payable directly to the airline against a pro-forma invoice or as re-imburement to the researcher upon presentation of airline boarding passes.
- vii. Surface and marine transport fares will be paid at actual cost for each journey for the researchers, technicians and other assistants.

(c) Vehicle rentals shall be as follows.

- i. Taxi fares at actual cost where no other form of transport is available.
- ii. Where the vehicle is provided by an individual on a private basis, a mileage allowance of US\$ 0.90 per kilometer travelled shall be paid.
- iii. Where an institution or an individual external to MJNUAT provides the vehicle, the rates in (ii) above will apply.
- iv. Where MJNUAT or a government department provides the vehicle for research activities, the researcher shall pay a mileage charge of US\$ 0.45 per kilometre. Further, the user shall be responsible for fuel costs and subsistence allowance for the driver. In addition, a vehicle holding fee of US\$ 50 per day shall be paid on top of the mileage charges.

- v. Laboratory facilities/services charges for users shall be determined by respective units

(d) Review the remuneration scheme on a regular basis, preferably after every three years. The implementation of a research remuneration scheme shall be part of the Human Resource Management (HRM) Policy.

3.14 Contributions to the Research Administrative Infrastructure

The university shall:

- (a) Require that research projects contribute at least **10%** of the total project research costs to the institutional overheads (Administrative cost). Fifty percent (50%) of the overhead shall form the internally generated income for the University. Research projects with less than 25,000USD shall be exempted from overhead administrative charges.
- (b) Ensure that the remaining 50% of research overhead contribution is shared amongst the research administrative units at the various administrative levels.
- (c) Sharing of the administrative overheads shall ensure that priority is given to where research activity is taking place.
- (d) In this respect, a minimum of 20% shall be contributed to the respective department (or academic unit), 20% to the respective college/school/institute/centres and 10% to the Directorate responsible for research at constituent college or university level.
- (e) The sums accumulated by the respective units shall be accounted for using University financial regulations and procedures.

3.15 Sharing of Research Resources

This is aimed at creating transparency in the allocation and utilization of research resources, and creating a mechanism of sharing available research resources. Therefore, the university shall:

- (a) Ensure that Colleges, Schools, Institutes and Departments have straightforward and target criteria of making research opportunities known to members of staff and for allocating such opportunities;
- (b) Encourage sharing of research project resources so as to fully utilize research resources

available;

- (c) Encourage and facilitate sharing of data and data sources of academic value. Such sources will incorporate books, journals, electronic data and sources of such electronic data through the Internet (e.g. electronic databases);
- (d) Set up mechanisms/procedures for using and sharing resources and facilities across colleges, schools, institutes and centers.
- (e) Establish mechanisms for helping researchers to obtain equipment and supplies and to prepare financial reports.
- (f) Establish a database to empower students and staff to access the research inventory and provide data handling facilities.

Staff and students may not utilize University assets, including facilities, personnel or equipment, except in a purely incidental way as part of their outside consulting activities or for any or any other non-University purposes, without the endorsement of the heads respective departments.

3.16 Ethics and Integrity Considerations in Research

MJNUAT gives high importance to research as one of the essential elements of the university community, in an endeavor to promote excellence as well as ethical responsibility in the search for and the creation, conservation and transfer of knowledge. Issues of morals in research under thought incorporate direct in dealing with research subjects and materials, recognition of appropriate to privacy or confidentiality, informed consent and production of research results. MJNUAT recognizes that Tanzania has established various Institutions to regulate various aspects of morals in research and development. Along these lines, MJNUAT commits to cooperate with these institutions and furthermore direct researchers and students to do the same. The Research and Publications Committee ethic guidelines as generally known "Vancouver Accord" and other University codes of ethics shall also guide researchers.

3.17 Research and Publications Committee

This is a University-wide committee mandated to coordinate and direct the operations of research activities at the University and periodically give relevant recommendation to SENATE on issues related to research and publications through the Board. For the purpose of ethics in

research, this committee has an obligation of monitoring and assessing compliance to ethical conduct of researchers undertaking research. Consequently, the committee has also the responsibility of making recommendations to SENATE for action to be taken upon breach of research ethics.

3.18 Operational Procedures on ethics and integrity

The university shall;

(a) Establish and operationalize the following Research Governance guidelines to ensure that research conducted at the university adheres to the principles of Integrity, objectivity, responsibility, receptiveness, honesty, leadership and ethics. The university shall ensure the establishment and implementation of the following research governance guidelines;

- Responsible Conduct of Research guidelines
- Biosafety guidelines
- Data Security guidelines
- Conflict of Interest guidelines
- Human Research Ethics guidelines
- Animal Research Ethics guidelines
- Procedures for addressing reported breaches of Responsible Conduct of Research regulations.

(b) Command the Research and Publication Committee (RPC) to authorize the Research Governance guidelines. In such manner the RPC shall;

- Ensure that anyone aiming to conduct research at MJNUAT comprehends the respective Research Governance guidelines before starting his/her work.
 - Call upon all those engaged in research, and specifically, those with a particular obligation as research leaders, to observe and promote these principles irrespective of their sources of funding or their area of research
- Oversee the establishment and running of the University's Human Ethics

Review Committee and Animal Ethics Review Committee based on established laws.

Ensure that the respective ethics review committees review all research involving human and animal subjects

3.19 Cross-Cutting Issues

In the undertaking of research, it is important to obviously explain the research policy on crosscutting issues that incorporate environment, gender and different components of disparity. In such manner, the university shall:

- (a) Ensure that research activities follow important national laws, policies and guidelines
- (b) Ensure impartial access to research resources and benefits from research results.

3.19.1 Gender Mainstreaming

Taking into account that the participation of women in research has been very limited, MJNUAT policy perceives the requirement for gender-responsiveness through research. Notwithstanding advancing improved interest of women in research, the policy additionally aims to guarantee that there are no disparities because of gender or other factors of inequality in accessing research resources and benefits from research results. The University guarantees the participation of women in research and eliminate any type of discrimination or inequity in research conducted at MJNUAT. In such manner, The University of shall;

- (a) Promote gender-responsiveness through research and developments.
- (b) Eliminate all types of segregation or disparity in research.
- (c) Provide equal opportunities for staff and students to be equipped in research methodology.
- (d) Integrate gender in developing research project proposals.
- (e) Encourage participation of women in research teams.

3.20 Ownership of Research Outputs

MJNUAT Intellectual Property Rights Policy shall layout provisions regarding ownership of research outputs. Likewise, this policy shall ensure that, the university motivates, stimulates, captures and harnesses the innovations invented through research conducted at the institution. In that regard, the university shall;

- (a) Inspire staff and students to focus on researches that will have innovations as their core outputs
- (b) Take part through facilitation, in identification and development of innovations that have institutional, societal, industrial benefits
- (c) Advocate the use of Intellectual Property information to advance research and innovation.
- (d) Capacitate the Technology transfer Office in evaluating whether has commercial potential and giving support for patenting, licensing and spinning-off from research innovation
- (e) Encourage public private partnership (PPP).
- (f) Develop Intellectual Property Policy (IPP) which will entail on all issues regarding patents emerging from research conducted at the institution or conducted by MJNUAT Researchers

3.21 Use and Disposal of Research Project Resources

Terms and conditions must always be included in funded project agreements to guide on the use and disposal of tangible properties such as equipment, vehicles, reports, theses, and dissertations or intangible properties such as rights to data, copyrights, and inventions. Likewise, The University shall;

- (a) Make sure that all purchases under research grant remain the property of MJNUAT and shall be included in ledger books or lodged with the appropriate University authorities (i.e. academic or administration units as the case may be) at the end of the project. All research assets shall be under the jurisdiction of the

University with the Vice Chancellor as the controller on behalf of University Council.,

- (b) Give importance to the units that carried or hosted the research in redistribution of research properties when the project phases out.
- (c) Ensure that a leader for collaborative and externally funded research projects operating at MJNUAT is an academic member of staff. The leader shall be appointed by compromise among the collaborators or by the university after endorsements of the Research Committee if the situation may so require.
- (d) Ensure that while the research is still running, no equipment or goods purchased with research funds will be sold, ceded, exchanged or disposed without University approval.
- (e) Make sure that all project equipment including vehicles shall be exploited and administered as per general University regulations and guidelines to ensure all researchers get unbiased access to the facilities.
- (f) Project vehicles shall be used only for research or other official duties and shall be parked in and granted by University Authority areas officiated by the University. If need be, permission to drive project vehicles by researchers shall be sought.

3.22 Impact of Research

For research that has direct impact on society, the university shall:

- (a) Institute a feedback mechanism to assess research impact in solving issues in the community; and
- (b) Use the feedback mechanism to enhance continued improvement of the research agenda.

3.23 Application and Review

The university shall:

- (a) Ensure that all staff members (including affiliates) and students involved in research with and/or outside MJNUAT adopt this Research Policy. This shall also apply to all MJNUAT research partners and collaborators.
- (b) Institute administrative protocol for the Research Policy to be reviewed after every five years.
- (c) Ensure that Constituent Colleges adapt and customize this policy to align with institutional functions and organizational structure;
- (d) Ensure that policy statements guide the general conduct of research involving university staff.
- (e) Necessitate the specific policy intentions to be operationalized by relevant offices within the university.

CHAPTER FOUR.

STRATEGIES FOR IMPLEMENTING RESEARCH POLICY

4.1 Fundamental Strategy

For this Research Policy to be effectively implemented; the Research Unit shall be in place, and the research administrative infrastructure from department to University level shall be capacitated. The mandates and responsibilities of the Unit shall reflect its chief role of operationalizing the research policy. The following actions are necessary for the successful implementation of the Research Policy:

- (a) Empower the research unit to administer and coordinate research by staffing, establishment of administrative units, equipment and some seed funds.
- (b) The Research Unit shall be apportioned with 2% contribution from all research funds done at University. This shall also include annual government research grants;
- (c) The Research Unit shall be the mouthpiece of institutional research information to external stakeholders;
- (d) The Research Unit shall be responsible for fostering and coordinating internal and external linkages on all research issues
- (e) Within the university, the Research Unit shall coordinate the process of implementation of the policy through setting up of internal administrative links including horizontal linkages (with other relevant offices at the top University management level) and vertical linkages (with researchers through colleges/schools/institutes and departments). The Research Unit shall ensure the following specific actions in setting-up horizontal linkages
 - To be at forefront in pushing forward university level policies to ensure that research interests are protected
 - To collaborate with other relevant university offices to implement the MJNUAT Corporate Strategic Plan and other similar plans
 - To develop guideline in defining excellence in research and spearhead the identification and rewarding of research excellence within MJNUAT guided by the HRM policy.

(f) The Research Unit shall ensure the following specific actions in setting-up vertical linkages

- To standardize internal research administrative procedures
- To ensure MJNUAT researchers participate in advancing the national and regional research agenda
- To facilitate in securing research funds from public, private and external sources;
- To coordinate dialogue between researchers and research clients
- To spearhead formation of research centres and centres of excellence, post-doctorate programmes and research associates and chairs
- To enable dissemination and commercialization of research outputs through the Directorate of Outreach and Technology Transfer
- To act as custodian of research output on behalf of the university
- To establish and publish a regular Research Communiqué and Research Annual Report or any other similar publication that depict the status of research activity within MJNUAT.

Therefore, the research Unit shall bear the overall responsibility for implementation and review of the Research Policy.

4.2 Strategy for Sourcing of Funds and Quality Assurance

Funding and quality outputs are imperative issues that govern the success in the conduct of research at the university. A key strategy to ensure quality research outputs is vigorous coordination in seeking for research funds. For that regard, the Research Unit in collaboration with available academic units shall actively seek information on potential research project funding and share the information as they flow in.

The Unit shall be compartmentalized with Research Administration Unit (RAU) or a similar set up that shall work towards fostering overall research performance. Quantity and quality of the research outputs and efficiency of achieving them within the MJNUAT corporate strategy shall measure the performance. The Research Unit shall jointly work with the Quality Assurance

Bureau (QAB) to ensure high research quality. Strategies for research resource mobilization, distribution and efficient utilization shall be given much emphasis.

4.3 Research Management

Management is of paramount for successful of any research, therefore there is a need for MJNUAT to strengthen research management at all levels in order to address important issues including;

4.3.1 Identification of Sources and Management of Research Resources

- (a) Identify possible national and international sources of research resources and strategize means for mobilization/accessing them;
- (b) Ensure that information on specific research opportunities is disseminated to relevant University Unit(s)
- (c) Share general information (in hard and web-based e-format) on available sources and modes of research funding on regularly. There shall be a mechanism of ensuring that e-format is only accessible by university staff
- (d) Coordinate presentation and discussion on new opportunities for research funding through regular research resources mobilization workshops
- (e) Facilitate and foster linking up process with research funders where such donors have been identified through the unit;
- (f) Form lobbying groups through linking up with other national stakeholders that shall help in pushing for an increased share of research funding from government, the private sector and the international donor community
- (g) Collaborate with potential researchers in developing research competitive proposals for submission to potential donors
- (h) Receive and compile relevant reports of various research projects for submission to the donors by the Unit.
- (i) Suggesting specific operational procedures in line with Research Policy for the various research funding sources for approval of the MJNUAT Research and Publications Committee

- (j) Ensure that adequate funds for research activities is allocated for planned priority research by submitting a sufficient research budget to the government and other sources; and ensure that the funds are effectively utilized for the purpose;
- (k) Exploit potential for multi-disciplinary research projects, and initiate the formation of such teams which once formed, shall be left to operate under the approved modalities of multi-disciplinary research teams; and
- (l) Compile the MJNUAT Annual Research Report that shall recap annual activities done under all research grants in a standard format to be approved by the MJNUAT Senate Research and Publications Committee.

4.3.2 Research Data Bank and Dissemination of Research Results

- (a) Maintain and regularly update a research activity database of the university. The selected information shall be published onto a MJNUAT Research Web Page
- (b) Construct and maintain an accessible electronic research output database that shall have at least full abstracts of the research reports and other related publications
- (c) Compile and organize for the printing of a hard copy of a research communiqué containing abstracts of research projects on annual basis
- (d) The Research Unit shall search and relay information on research funding to academic units on regular basis
- (e) Produce and regularly update a good brochure to advertise MJNUAT research services

4.4 Research Quality Management

The Research Unit in collaboration with the Quality Assurance Bureau (QAB) shall develop and implement a process of evaluating, monitoring and reporting on research quality performance at university using the following indicators annually:

- (a) Research planning
- (b) Research training
- (c) Rate of research degree completion
- (d) Number of publications per academic staff

- (e) Reports on peer reviewed research
- (f) Facilities and access to information resources
- (g) Research supervision assessment by students
- (h) Percentage of staff published research output in a period of three years
- (i) Staff percentage actively and directly engaged in research
- (j) Time taken for research degrees
- (k) Indicators that measure society perceptions on the research that MJNUAT staff do
- (l) Clients proportion constantly utilizing MJNUAT research services
- (m) Number of local or international research projects that MJNUAT competitively wins
- (n) Number of collaborative research networks established with regional and international institutions
- (o) Percentage of patents and copyrights
- (p) Percentage of commercialized research results
- (q) proportion of research results dissemination events
- (r) Subsequent availability of funds for the research after completion and dissemination of a phase of the research.

The DVC-ARC shall advise the Senate Research and Publication Committee or similar committee, on what the standards should be for these indicators.

4.4.1 Operational Procedures

In order to homogenize and harmonize research process within MJNUAT, the Research Unit shall develop explicit guidelines in form of Research Operational Procedures. The basic documents for various Operational Procedures are included in Appendices I–VII of this policy.

These operational guidelines and tools shall be reviewed on a regularly to accommodate changes in the operating environment. The Unit responsible for research within MJNUAT shall be the overseer of the Research Policy on behalf of the University, and shall ensure that it meets both the internal and external stakeholders' requirements all the time.

4.5 Development of Comprehensive Implementation Strategy-Way Forward

Various policy statements and strategies have been incorporated in this Research Policy. The Unit responsible for research shall come up with an implementation strategy that has inputs from the University external stakeholders. Therefore;

- (a) This policy shall be executed and reviewed after five years by the Institution's Research and Publication Committee.
- (b) This Policy shall be implemented or supplemented in line with its terms and those of other Institution policies.
- (c) This Policy shall not affect on-going research projects and written agreements between the Institution and any external organization or individual, entered into prior to the date on which the Institution Council puts this Policy into effect.
- (d) Attempts will be made to make an existing agreement conform to the requirements of this Policy if such agreement is to be renewed, revised, or amended after the date on which the University Council adopts this Policy
- (e) Following adoption of this Policy, the University Senate shall be responsible for drawing out implementation guidelines or procedures from time to time.

5.0 APPENDICES

Appendix I: Guidelines for Approval of Research Proposals

1.0 Initiation of a Research Project

A research proposal should be prepared by interested researchers in accordance with the format given in by university guidelines. The proposal should then be submitted to the Departmental Research Committee (DRC).

To ensure maximum efficiency and to minimize administrative problems, a researcher is normally recommended to limit the number of research projects undertaken at any one time. The number and sizes of research projects will be dependent upon the DRC's assessment of the individual researcher's ability to handle several research projects at a time. In any case, consideration shall be given to ensure a reasonable balance between involvement in research, teaching and consultancy.

The approval of research proposals shall be based upon previous satisfactory performance. In general, collaborative and group research work will be given preference over individual ones. MJNUAT encourages international collaborative research and where funding is available, these should be given special preference.

2.0 Action by the Departmental Research Committee (DRC)

The proposal should be discussed by the DRC. Once the DRC is satisfied with the relevance, the need, soundness and the financial estimates of the submitted research proposal it will be forwarded through proper channels to the College/School/ Bureau or Institute Research Committee (CRC/ScRC)/(BRC7/IRC) with appropriate recommendations. However, if the

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

- To return the proposal to the researcher(s) for review and subsequent resubmission;
- To interview the researcher(s) and then either subject the proposal to the action above or approve it subject to minor revision. Another outcome of the interview could be approval of the proposal as it is;
- To 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 to either 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. As a guideline, the DRC should limit its evaluation to a maximum of three months.

3.0 Action by the College/School/Institute/Bureau Research Committee (CRC/ ScRC/ IRC/ BRC)¹

The CRC/SCRC will scrutinize the research proposal, especially the research objectives, research methodology, time schedule, phasing etc. The CRC/SCRC/IRC shall particularly scrutinize 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. If the CRC/SCRC/IRC is not satisfied with the research proposal, it is proposed that

the courses of action to be taken shall be similar to those taken by the DRC. The only exception is that, in the case of an appeal after the first rejection by the CRC/SCRC/IRC, the proposal is forwarded to the Principal/Dean of the College/School/Institute who shall make his/her recommendations to the CRC/SCRC/IRC. As a guideline, the maximum evaluation period of a research proposal at College/School/Institute level should not exceed three months. For projects funded at College/School/Institute level, the CRC/SCRC/IRC has the final say on the approval of project (with room for appealing to the Principal/Dean/Director).

The projects shall be registered appropriately and both a copy of approved research proposal and the registration number forwarded to the Research Unit. For University funded research applications the CRC/SCRC/IRC shall make recommendations for funding to the appropriate University level committee (SRC).

4.0 Action by University Research Committee (SRC)

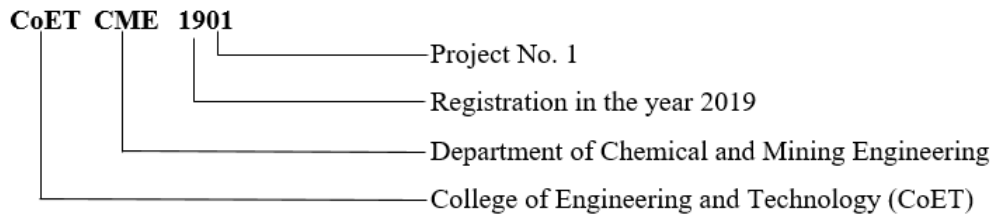
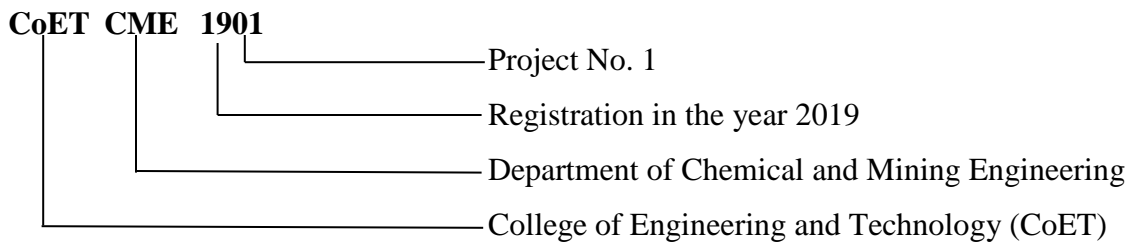
The SRC shall receive and consider any proposal for funding after being satisfied with the relevance, need, soundness and financial estimates. The SRC shall have the following alternative courses of action:

- To accept the proposal for funding when the committee is satisfied;
- To return the proposal to the CRC/SCRC/IRC for review and subsequent resubmission if the guidelines are not followed or if the procedures have not been adhered to;
- To approve it subject to minor revisions to be made by the applicant(s);
- To reject it outright if the committee is sufficiently convinced that the proposal is of sub-standard nature in both the content and the presentation.

In case a research proposal is rejected and the applicant is not entirely satisfied with the decision, one can appeal to the Chair of SRC who might choose to return it to the University SRC with recommendations

5.0 Approval and Registration

All research projects shall be registered with the University Research Unit whether they are funded at College/School/Institute or University level. A Research proposal shall be numbered serially proceeded with College/ School/Institute and Department and year codes as follows:



The Research Unit shall coordinate research project registration. The Unit shall also maintain an up-to-date database of all research projects within the University.

6.0 Research Contract and Funding

An approved research proposal shall only be funded once the researcher(s) has signed a contract with appropriate offices. This shall be at the College/School/Institute or University level

depending on where funding is sourced. In any case, contracts signed at College/School/Institute level shall be deemed to be contracts with the University. The format for research contracts is included in **Appendix IV**

7.0 Interim Progress Reports

At the end of each phase, the researchers are required to produce interim progress reports giving the up-to-date research findings through the DRC. The guidelines and format for such progress reports is given as Appendix V

If, as a result of the progress report, there is a need to modify the contract (or schedule of payments), this request should be formally made through and recommended to the CRC/SCRC/IRC by the Departmental Research Coordinator.

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 CRC/IRC for College/School/institute funded research projects and by the MJNUATSRC for MJNUAT level funded projects.

8.0 Final Research Report

At the conclusion of the research, a final research report should be submitted in the format contained in Appendix VI. This 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 consolidation research report. The draft final research report should be sent to the DRC, which shall appoint an independent reviewer who shall then submit the review report to the DRC together with their comments within one month after receipt of the researcher's report. 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.

At least six (6) copies of the final research report should be submitted to the respective college or school for final approval. After the approval, these copies will be distributed as follows: Research Unit, College, School or Institute Head of Department, Coordinator DRC, MJNUAT main library and the section library where this exists. The abstracts of the final reviewed research reports should be published periodically in the respective College/School/Institute/Research Abstracts.

9.0 Research Seminars

The researchers should be required to give a seminar/conference at the conclusion of their research work and should also be required to give periodic seminars during the research work in the annual College/School/Institute Workshop. In principle, the seminar/conference presentation will 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 pre-condition for the release of the final payment to the researcher(s).

Appendix II: Format for Research Project Registration

1.	Title of the project		
2.	Name of the project leader		
3.	Collaborating Researchers and departments of affiliation	1.MJNUAT – Researcher 2.Others:	
4.	Starting date		
5.	Duration		
6.	Expected date of completion		
7.	Project main objective		
8.	Research target sites		
9.	Sponsor/Funding agency		
10.	Total budget		
11.	Annual disbursement		
12.	Signature of project leader		
	Date:		
		Remarks	Signature
13.	Head of Department		
	Date:		
14.	Dean/Director		
	Date:		
15.	DVC-Responsible for Research		
	Date:		
	Registration number (to be issued by DVC-Responsible):		

Appendix III: Standard Research Budget Format

1.0 Cost Estimates

Cost estimates for research Project proposals should be given under various subheadings such as:

- | | |
|------|---|
| i | Equipment, books, tools costs (if any) |
| ii | Prototype, models and software |
| iii | Consumables/materials |
| iv | Research material (samples, data, maps); |
| v | Field expenses |
| vi | Dissemination of research results |
| vii | Stationery/Report writing costs |
| viii | Communication |
| ix | Seminars and conferences |
| x | Payments to supporting staff |
| xi | Travel and accommodation costs |
| xii | Labour costs |
| xiii | Honoraria; mention names of recipients, applicable rates and duration |
| xiv | Contingencies; usually 10 - 15% should be allowed for |
| xv | Research administrative costs - at least 12% of all costs |

The cost estimates should conform to approved rates.

- Indicate which cadre of supporting staff, for how long and state the basis of payment i.e. either a fixed rate per hour or lump sum payment(s).
- For consumables/materials, indicate the local/foreign cost component.
- Here state the applicable per diem or the estimated ticket cost, duration of stay, accommodation charges per night, food cost/allowance, if traveling by road in a College/School/personal vehicle indicate the total distance to be travelled and the applicable rates. Allow for the driver's expenses.

2.0 Budget Format and Payment Schedule (See next page).

MJNUAT SAMPLE SUMMARY OF RESEARCH PROJECT BUDGET

College/School/Institute: _____

Research Title: _____ Principal Researcher: _____

		PHASES			Total
		Phase 1	Phase 2	Phase 3	
A	DIRECT COSTS				
A.1	Equipment and instruments				
A.2	Prototypes, models and software				
A.3	Consumables (reagents, films, tapes)				
A.4	Research materials (samples, data, maps)				
A.5	Field expenses (RAs, labour, tools)				
A.6	Dissemination (fliers, documentaries)				
A.7	Stationery and report writing				
A.8	Communication				
B	TRAVEL				
B.1	Local travel and per diems				
B.2	Seminars and conferences*				
	Sub-total				
C	INSTITUTIONAL FEES [12%]				
	Total				

**International seminars and conferences shall be handled (administratively) separate from this budget.*

NOTES

1. *This worksheet is protected thus cannot be altered. Its inputs come automatically from detailed budget in worksheets of Phase 1 to Phase 3, which can be altered.*
2. *The 'Budget Summary' and the 'Budget Distribution' pie chart should be inserted in the respective position of the main body of the research proposal*

Appendix IV: Sample Research Contract Format

MJNUAT CONTRACT FOR RESEARCH

1. Name of the Researcher(s)

_____ (Principal Researcher)

- 1.
- 2.
- 3.

The Researcher agrees to undertake research under the following terms and conditions:

- 1. I, the Principal Researcher mentioned above, undertake to carry out the research _____ project, titled.....the details of which are contained in the attached approved proposal.
- 2. The duration of doing the research will be..... Months/Years.
- 3. MJNUAT undertakes to provide funding for the proposal project for the total amount of TZS..... subject to availability of funds.
- 4. The researcher(s) undertakes to abide with all applicable MJNUAT policies on finance, research, intellectual property rights and other guidelines in the conduct of research, reporting and collaboration with external researchers and or institutions.
- 5. The payment will be in accordance with the approved schedule that is attached to this contract.
- 6. All administrative staff, e.g. secretarial, technical and auxiliary will be from among _____ MJNUAT

staff/students. Permission to employ staff from outside MJNUAT, if for an extended period of time and/or on regular basis, should be obtained from the Research Unit before the appointment is made.

7. MJNUAT reserves the right to withhold payment partially or fully, if it is not satisfied with the progress of the project and upon failure of the researcher to rectify the anomaly within the agreed timelines. MJNUAT shall also have the right to recover unaccounted and unretired funds from the research staff salary and may bar such researcher from applying for similar research support.

8. In case of non-performance, except in cases of force majeure and other justifiable causes, the researcher(s) shall be required to fully or in quantum merit refund the MJNUAT payments received for the purposes of research.

9. The Principal researcher acknowledges that he/she is aware of the MJNUAT Research and Intellectual Property Rights Policy, which are to the effect that MJNUAT shall own all intellectual property rights arising out of the research.

10. The research project has been assigned a unified MJNUAT Code No.....

We the undersigned accept the above- mentioned terms and conditions.

Principal Researcher	Witness
Principal/Dean/Director,	College/School/Institute
.....	of

.....

Date

Copy: Research Coordinator _____

Appendix V: Research Progress Reporting Form

1.0 PROJECT DESCRIPTION

SECTION A: SUMMARY OF ADMINISTRATIVE INFORMATION

1.1 Project Number & Title:

1.2 Principal Researcher

Name _____ Department _____

1.3 Period (month/year) covered by this report:

From _____ To _____

1.4 Starting date of Project:

1.5 Estimated duration of Project Date of estimated completion

Initial:

Latest:

1.6 Estimated cost of Project (in TZS):

1.7 Funds allocated to project (in TZS):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5

2.0 PROJECT OBJECTIVES

Briefly state the project objectives, indicate which (if any) are changed or new, and give the reason for any revision (1) since the start of the project, and (2) since the latest progress report.

3.0 PROGRESS SINCE LAST REPORT

SECTION A: SCIENTIFIC PROGRESS:

Include sufficiently detailed summaries of work carried out and results obtained to permit an informed critical scientific assessment of the work by the respective committees and peer reviewers. If possible, results should be presented in tabular or graphic form. Summaries should be complete in themselves and as brief as possible, consistent with clarity (a maximum of two pages is required).

SECTION B: PROGRESS TOWARDS ARCHIEVING PROJECT OBJECTIVES

Describe advances and/or problems encountered towards the completion of the Plan of Work for this reporting period. Interpret new findings (both positive and negative) in terms of the objectives of the project and state if they are expected to increase (or decrease) the duration, total cost, and/or likelihood of success of the project. If findings indicate potentially fruitful alternative and/or additional lines of research, indicate so with sufficient explanatory information to ensure understanding by reviewers.

4.0 FINANCIAL STATEMENT OF INCOME AND EXPENDITURE DURING THE PERIOD COVERED BY THE REPORT

PERIOD COVERED (DATE) FROM _____ TO _____.					
		Amount ¹ Brought Forward	Fund ² Received	Funds ³ Expended	Balance ⁴
1.	Direct Expenditures				
2.	Travel and Transport				
3	Per Diem				
4.	Honoraria				

1. Amount should be shown in TZS.
2. The breakdown should be as shown in the budget approved for the reporting period.
3. Includes as funds expended and 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 III

Appendix VI: Format for the Final Research Report

1.0 Research Report Content

A research report should include the following headings:

- Abstract
- Acknowledgments
- Table of contents
- List of figures
- List of symbols
- Introduction
- Objectives
- Literature review
- Methodology
- Experimental details
- Results
- Analysis and Discussion of the results
- Conclusions and Recommendations
- References/Bibliography
- Tables
- Plates
- Figures
- Appendices

2.0 Report Format

- All headings should be left justified.
- Line spacing should be single and fonts should be 12 CPI.

- Left margin should be 1.5 in and 1 in on all other sides.
- Typing should be on both sides 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.

Example:

(i) **Technical articles**

Lembu, T. R., 2005 Informal Construction Sector Performance in Tanzania. Tanzania Engineer, IET, 10(3), pp. 37 - 43.

(ii) **Books**

Masatu, C. K., 2004. Implementing Total Quality Management in Higher Education. Dar salaam Higher Education Press, Dar es Salaam. 156 pp.

(iii) **Reports**

Construction Industry Development Board, 2004. Construction Industry Sector Development Strategy - A Summary of Needs. CIDB, Dar es Salaam. 142 pp.

- Tables, Plates and Figures should either be included in the text at the appropriate places or they should be at the end of the text, after references.

3.0 Electronic Format

For purposes of inclusion in the MJNUAT electronic database, an electronic format of the report based on commonly used software shall also be submitted.