

**MBEYA UNIVERSITY OF SCIENCE AND TECHNOLOGY**



**RESEARCH POLICY AND OPERATIONAL PROCEDURES**

**NOVEMBER 2023**

## **FOREWORD**

Mbeya University of Science and Technology (MUST) has an obligation to contribute to national social and economic development through training, research, consultancies, and other allied services to the community. MUST is recognized as one of the most capable research institutions in Tanzania with relevant skills, requisite research and teaching facilities, and the mandate to generate new knowledge through research. Despite its competent human and physical resources, MUST is confronted with a number of challenges: access to and availability of funding to its various programmes; and effectively utilise the available human and physical resources to optimize research impact at national and international levels. To address these, the University with the support of the Higher Education for Economic Transformation (HEET) Project revised the Research Policy and Operational Procedures formulated in 2020 as a rule of thumb that policies are revised after every three years. The revision of the Research Policy and Operational Procedures serves as a blueprint for all research executed by research stakeholders.

The current revision has taken into consideration changes in National Research Priorities, MUST Research Agenda, MUST Corporate Strategic Plan, and overall University transformation. Through HEET Project support, the major revisions include cross-cutting issues: Gender; HIV/AIDS; Environment and climate change; and related policies and guidelines. However, the Research Policy and Operational Procedures are not exhaustive in themselves, thus they should be used along with other university policies and guidelines. By so doing, it is hoped that the University will significantly improve its research landscape and thereby play its role in ensuring that Tanzania keeps pace with the global revolution in knowledge production, exchange, and utilization. Furthermore, the University will continue to retain its place as one of the most prestigious research institutions in Tanzania and worldwide. Henceforth, MUST will not only be a pace-setter in producing breakthrough knowledge, but also instrumental in disseminating new knowledge to the consumers/community and provide training for researchers of tomorrow.

**Prof. Aloys Mvuma**

**Vice Chancellor**

**November 2023**

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## **LIST OF ABBREVIATIONS AND ACRONYMS**

AIDS	Acquired Immunodeficiency Syndrome
CITT	Centre for Innovation and Technology Transfer
COSTECH	Tanzania Commission for Science and Technology
DPSRP	Directorate of Postgraduate Studies, Research and Publications
DQA	Directorate of Quality Assurance
DTA	Data Transfer Agreement
DVC-ARC	Deputy Vice Chancellor Academic Research and Consultancy
GDP	Gross Domestic Product
HIV	Human Immunodeficiency Virus
ICU	Internationalization and Convocation Unit
IP	Intellectual Property
IPR	Intellectual Property Rights
M&E	Monitoring and Evaluation
MIST	Mbeya Institute of Science and Technology
MRIW	MUST Research and Innovation Week
MTA	Material Transfer Agreement
MTC	Mbeya Technical College
MUST	Mbeya University of Science and Technology
PI	Principal Investigator
PRA	Participatory Rapid Appraisal
PSD	Department of Postgraduate Studies
PSRPC	Postgraduate Studies, Research and Publications Committee
RCEs	Research Centres of Excellence
RPD	Research and Publications Department
SUA	Sokoine University of Agriculture
UDSM	University of Dar Es Salaam

## **DEFINITION OF TERMS AND CONCEPTS**

### **(a) Monitoring**

Monitoring is a continuous process to assess progress, identify bottlenecks, and focuses more on the process.

### **(b) Evaluation**

Evaluation is sporadic (done mid-term or end of the activity) to assess the achieved results against expected ones.

### **(c) Philosophy**

Philosophy is a way of thinking about the world, the universe, and society. It deals with fundamental nature of knowledge, reality, and existence, especially when considered as an academic discipline or a theory or attitude that acts as a guiding principle for behavior or expected results.

## **CHAPTER ONE**

### **BACKGROUND INFORMATION**

#### **1.1 Introduction**

The history of Mbeya University of Science and Technology (MUST) dates back to 1986 when Mbeya Technical College (MTC) was established by the Government of Tanzania for the purpose of training Full Technicians at Certificate Level (FTC) under the Russia - Tanzania Training Support. The College existed up to mid-2005 offering programmes in the fields of Architecture Technology, Electrical Engineering, Civil Engineering and Mechanical Engineering. In July 2005, MTC was transformed into a comprehensive multi-disciplinary Mbeya Institute of Science and Technology (MIST) by the National Council for Technical Education (Mbeya Institute of Science and Technology) Establishment Order, 2004.

The transformation was a Government move towards strengthening the College to become a fully-fledged University. Mbeya Institute of Science and Technology registered a number of achievements including restructuring of FTC programmes to Ordinary Diploma programme and introduction of Undergraduate Degree programmes which eventually lead to expansion of student enrolment. Following these achievements, on 29<sup>th</sup> March 2012 after being issued with a University Provisional License by Tanzania Commission for Universities (TCU), the Institute was transformed into a fully-fledged University named Mbeya University of Science and Technology (MUST). The University was granted the Mbeya University of Science and Technology Charter, 2013 on 20<sup>th</sup> August 2013.

The purpose of this document is to guide the general conduct of research and provides operational procedures for carrying out research at the University.

## **1.2 MUST Vision**

The Vision of Mbeya University of Science and Technology is to become the leading center of excellence for knowledge, skills and applied education in science and technology.

## **1.3 MUST Mission**

The Mission of Mbeya University of Science and Technology is to develop academically, technologically and socially competent students, staff and other stakeholders who will be responsive to the broader needs and challenges of the society specified by:

- (a) Facilitating appropriate tuition, practical training and support according to the needs of students and other customers;
- (b) Encouraging staff commitment to quality education and services including research, consultancy and innovation;
- (c) Fostering lifelong learning, honesty and responsibility;
- (d) Promoting an environment conducive to human development; and
- (e) Promoting effective entrepreneurship and usage of appropriate technology that meet national and international needs and standards through skills and practical oriented training, research and consultancy.

## **1.4 Situational Analysis**

As at the time of revising this policy in 2023, MUST has instituted the following interventions to foster research related activities:

- (a) Strengthening the Directorate of Postgraduate studies, Research and Publications;
- (b) Establishment of Research clusters;
- (c) Establishment of internal research grants;

- (d) Increased training and sensitization of MUST staff and students on research related issues;
- (e) Review of Guidelines for Handling Internal Calls for Research Grants (2023), Guidelines on Scholarly Publishing (2023), and MUST Research Agenda (2023);
- (f) Establishment of Research Ethics Policy and Operational Guidelines (2023); and
- (g) Establishment of Guidelines for Centres of Excellence (2023).

Research activities are administered in the Department of Research and Publications under the Directorate of Postgraduate Studies, Research and Publications.

### **1.5 Justification of the policy**

The Research Policy and Operational Procedures is in the context of its mission and implementation strategies. Although the functions are all intertwined within the three core functions of Teaching, Research, and Consultancy, the specific University's functions that address research are to:

- (a) Assume a leading role in the responsibility of the university education and make the provision for centres and places of learning, education, professional or vocational training and research;
- (b) Excel in knowledge and human resources capacity building by ensuring a balance between quality and quantity;
- (c) Stimulate and promote intellectual, economic, political, social cultural, scientific, and technological research and development with particular reference to the interest of mankind; and
- (d) Establish mutually negotiated, beneficial, and durable links among learning and research institutions at national, regional and global level.

This Research Policy embraces these institutional ideals and functions. Furthermore, research has to be relevant to developmental responsibility of addressing national or societal problems with immediate or long-term impacts. In this respect, MUST research activities have to be constantly aligned with the national, regional, or even global development directions. This policy is therefore in-line with the national and regional development strategy.

## **CHAPTER TWO**

### **POLICY INTRODUCTION**

#### **2.1 Introduction**

This part presents Vision, Mission, Goal, Objectives, Philosophy, and Scope of Research Policy and Operational Procedures.

#### **2.2 Policy Vision**

To be a University with a strong, dynamic, resilient, and competitive research outputs both knowledge based and innovation driven.

#### **2.3 Policy Mission**

To develop a research system that will increase the outcome and efficiency of research and development (R&D) through participation and collaboration among academicians, students, researchers, and society.

#### **2.4 Policy Goal**

The goal of the Research Policy and Operational Procedures is to enhance sustainable, high quality knowledge generation and socio-economic development of the society through Research and Development (R&D).

#### **2.5 Objectives**

##### **2.5.1 Main Objective**

The main objective of MUST Research Policy and Operational Procedures is to guide researches so as to generate new knowledge and solutions to the challenges encountered by various sectors.

##### **2.5.2 Specific Objectives**

The specific objectives of MUST Research Policy and Operational Procedures are to:

- (a) Avail up to date guidelines for conducting research at the University;

- (b) Enable the academic members of the University to pursue research programmes leading to contribution to the body of knowledge, consequently enhancing the quality and relevance of the courses offered by the University;
- (c) Facilitate publishing and dissemination of research findings;
- (d) Create and maintain database of research findings;
- (e) Guide solicitation of research funds within the University and from development partners;
- (f) Guide handling of multidisciplinary research requiring different expertise within the University and beyond;
- (g) Guide on proper utilization and management of research funds; and
- (h) Guide on proper utilization and management of University research facilities.

## **2.6 Policy Philosophy**

The philosophy of this policy is to support relevant concepts in research and development that have practical consequences or effects.

## **2.7 Policy Scope**

The Research Policy and Operational Procedures is central to MUST development. Its implementation embraces elements of particular interest and relevance to researchers. It applies to: the University academicians and students; professional associations and development partners; communities; and both public and private sectors.



## **CHAPTER THREE**

### **POLICY ISSUES, STATEMENTS AND STRATEGIES**

#### **3.1 Introduction**

This chapter presents policy issues, statements and strategies. The Research Policy and Operational Procedures seek to address manners in which research and innovation will be conducted at MUST. Its purpose is to increase the contribution of research to the generation of knowledge and socio-economic development of the country.

#### **3.2 Policy Issue: Research quality assurance**

Research is one of the core mandates of the University as stipulated in the Mbeya University of Science and Technology Charter, 2013. Thus, the University shall ensure that research is well planned, executed, and provides outputs that promote standards of scientific excellence.

##### **3.2.1 Policy Statement**

The University shall provide a supportive environment for staff, local and international researchers to ensure that research is well executed to promote scientific quality.

##### **3.2.2 Strategies**

The University shall:

- (a) Endeavour to improve the research facilities such as accredited laboratories and workshops for specific disciplines;
- (b) Ensure that all research proposals are subjected to quality control before endorsing and forwarding to potential funders or donors;
- (c) Ensure that all research projects shall establish and fund a Monitoring and Evaluation (M & E) team that shall include at least one member appointed by the Directorate

of Postgraduate Studies, Research and Publications (DPSRP) who is not a member in the research project to oversee the project activities;

- (d) Ensure that each academic unit organizes regular seminars where project leaders shall present their research progress reports and outputs for scrutiny by peers;
- (e) Ensure that MUST researchers publish their research findings as stipulated in the current Scholarly Publishing Guidelines;
- (f) Monitor the quality and number of publications resulting from research done by staff;
- (g) Develop and disseminate standard quality indicators for research resources solicitation;
- (h) Conduct peer review of research performed at MUST at an interval of not more than five years; and
- (i) Ensure that all research projects are registered in the DPSRP before requesting for funding from MUST.

### **3.3 Policy issue: University research priorities**

To address national and regional development needs as reflected in the National Research Priorities, Tanzania Development Vision 2025, SDGs, MUST Research Agenda, and MUST Corporate Strategic Plan.

#### **3.3.1 Policy statement**

To address the policy issues, MUST shall keep updates and adopt changes as they occur in the national and regional development needs in line with the University's Vision and Mission.

#### **3.3.2 Strategies**

The University shall:

- (a) Adhere to the MUST Research Agenda;

- (b) Adopt a proactive role in influencing the national and regional development objectives and priorities in collaboration with other stakeholders;
- (c) Define relevant research programmes for different Colleges by involving staff at the departmental level. These have to be in line with national development objectives and priorities, relevant international trends and available capacity at MUST;
- (d) Require research programme developed to be approved by the Senate Research Committee;
- (e) Introduce University an annual conference/workshop that will receive and review research papers written by academic staff and research partners;
- (f) Encourage researchers to participate in relevant national and international conferences or workshops for dissemination of research findings;
- (g) Ensure that applied research receives appropriate priority in the development of the research agenda;
- (h) Set up the institutional framework for the establishment and operation of research centres of excellence within Mbeya University of Science and Technology;
- (i) Participate fully in MUST's Research and Innovation Week (MRIW); and
- (j) Ensure that DPSRP facilitates the formation of research teams led by senior academicians to seek funds for research priority areas and implement.

### **3.4 Policy issue: Sources of research funding**

Funding and quality of outputs remain one of the most critical issues that govern success in the conduct of research at MUST. A key strategy to address this challenge is to actively seek for research funds. The

Directorate shall seek information on potential research funds and disseminate them.

#### **3.4.1 Policy statement**

For sustainability and relevance, the main source of research funds shall still be the Government of the United Republic of Tanzania.

#### **3.4.2 Strategies**

The University shall:

- (a) Collaborate with other research institutions, for an increased share of national financial resources allocated for research;
- (b) Advocate performance-based research that will attract research students and research funds from various sources;
- (c) Introduce a separate budget line for research funding for all academic units from departmental level coordinated and presented by the directorate responsible for research to higher organs within the University;
- (d) Encourage and facilitate individuals, centres, departments, institutes, schools, and colleges to solicit funds from other sources including international and local bodies; and
- (e) Provide information on possible research funding from within and outside the University on a regular basis.

#### **3.5 Policy issue: Research planning, management, and capacity building**

MUST shall strengthen capacity of the Directorate to administer and coordinate research. This will require staff, establishment of administrative units, equipment and some seed funds.

### **3.5.1 Policy statement**

The University shall ensure that research is performed within a framework, which defines among others, the targets, responsibilities, and indicators.

### **3.5.2 Strategies**

The University shall:

- (a) Strengthen and equip core offices responsible for the overall research coordination at the University level;
- (b) Establish and strengthen administration infrastructure linking the DPSRP with Colleges, Directorates, and Centres;
- (c) Ensure that staff are fully involved in the research planning process and maintain a good balance between teaching, research and consultancy;
- (d) Strengthen research planning and management capacity at all levels;
- (e) Create mechanisms by which academic staff members are motivated to conduct research;
- (f) Encourage academic units to establish research centres; and
- (g) Encourage researchers, where possible, to include a budget component in their research project proposals to support short and long-term staff and student training.

### **3.6 Policy issue: Internal procedures for approval, control and monitoring of research process**

To put in place an operational mechanism of conducting research to ensure uniformity.

### **3.6.1 Policy statement**

MUST shall ensure that the guidelines of MUST Research Agenda, Scholarly Publishing, Internal Calls for Research Proposals, Preparing Research Proposals, Theses, Dissertations and Projects are adhered to.

### **3.6.2 Strategies**

The University shall:

- (a) Ensure that staff members are aware of the National Research Priorities and participate in translating them into the MUST research agenda of their respective academic disciplines;
- (b) Give priority to Researches within the MUST Research Agenda when approving research funding;
- (c) Follow one general framework which guides the preparation and approval of research;
- (d) Enter into a research contract with the researcher when the Research 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) Scrutinize 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 MUST; and
- (f) As far as practically possible, financier proposed contract formats shall only be signed where MUST interests are safeguarded.

### **3.7 Policy issue: Collaborative research**

To put in place an operational mechanism of conducting research in collaboration with other local or international research bodies.

### **3.7.1 Policy statement**

MUST shall ensure that the guidelines of the MUST Research Agenda, Scholarly Publishing, Internal Calls for Research Proposals, Preparing Research Proposals, Theses, Dissertations and Projects are adhered to.

### **3.7.2 Strategies**

The University shall:

- (a) Promote collaborative research where there are potential benefits to the University;
- (b) Recognize two forms of collaboration: external collaboration (involving a university academic unit and an entity or entities outside the University), and internal collaboration (involving two or more academic units within the University);
- (c) Promote 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 researches clearly demonstrate the benefits that will accrue to the University or indicate deficiencies/gaps within the University that necessitate external collaboration;
- (e) Require that a full-time employee of the University serves as the Principal Investigator. The University shall contend to be the lead institution in the proposal. Full-time employees of the University who serve as Co-Principal Investigators on collaborative grants led by other institutions shall, if possible, participate in designing the proposal so that the University serves as a subcontractor;
- (f) Insist that internal collaborative researches should be inter and multi-disciplinary in nature;

- (g) Ensure that inter and multi-disciplinary research are hosted in the academic units where the Principal Investigator belongs;
- (h) Require that the hosting department also be the department where the majority of the research activities will be conducted;
- (i) Require that the respective components of inter and multi-disciplinary research be approved by the relevant unit, which is the college or department;
- (j) Demand that if the implementing units are not in the same college/directorate/centre; approval at the college level shall only be necessary in the hosting entity, but shall be reported to the relevant entities in the non-hosting entities for noting;
- (k) Recommend that a representative from a department participating in the multi-disciplinary research be invited to the meeting that makes the decision in the host college;
- (l) Insist that staff participating in the inter or multi-disciplinary collaborative research have an obligation to report progress to their own department and shall have to report to the hosting department through the Principal Investigator;
- (m) Ensure that the collaborating academic units agree to share administrative costs; and
- (n) Require that the Corporate Counsel vet collaborative research agreements.

### **3.8 Policy issue: Research training, performance, contributions, and sharing of research resources**

To facilitate the transmission of knowledge and skills through training, manage research to ensure that it provides adequate performance reward that satisfies the specified requirements and establish research centres



and centres of excellence, post-doctorate programmes and research associates.

### **3.81 Policy statement**

MUST shall ensure that research contributes to institutional administrative infrastructure and overheads, and provide adequate performance reward that satisfies the specified requirements.

### **3.8.2 Strategies**

The University shall:

- (a) Strengthen and place emphasis on research training at the University;
- (b) Create and promote opportunities for post-doctoral scholars and research associates within academic units and devise means to include research grant proposals as a component of training;
- (c) Encourage that, where applicable, the training component to the end user of research output be one of the criteria in the approval of research proposals;
- (d) Facilitate staff in writing fundable proposals; hence, research methodology courses shall be integrated into continuing education;
- (e) Make a case for 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 MUST;
- (f) Devise allocation of research training scholarships to different academic units on the basis of performance and demand;
- (g) Encourage MUST academicians to pursue post-doctoral and research associate programmes;

- (h) Establish and operationalize a system with transparent criteria/indicators to measure research excellence;
- (i) Evaluate research performance of individuals, academic units and multi-disciplinary research teams on an annual basis;
- (j) Reward research performance at individual, academic unit and research teams levels each year. Rewards shall be those that encourage improved performance in research;
- (k) Ensure that each project contributes 10% of the total project research cost to the institutional overheads;
- (l) Ensure that the contribution is shared amongst research administrative units at different administrative levels;
- (m) Ensure that priority is given to the department where research activity is taking place. In this respect, a minimum of 5% of the project contribution shall be allocated to the respective department (or academic unit), 3% to the respective college/centre and 2% to the directorate responsible for research at constituent college or University level;
- (n) The sums accrued by the respective units shall be accounted for using the University Financial Regulations and Procedures;
- (o) Ensure that Colleges, Centres, and Departments have transparent and objective criteria of making research opportunities known to staff members and for allocating such opportunities;
- (p) Encourage sharing of research resources in order to fully utilize the available research resources;
- (q) Encourage and coordinate sharing of information and information sources of academic value such as books, journals, database, and electronic information;

- (r) Set up mechanisms or procedures for utilizing and sharing resources and facilities across Colleges, Centres, Departments, and Directorates; and
- (s) Establish a database to enable students and staff to access the research inventory and provide data handling facilities.

### **3.9 Policy issue: Research support environment and staff remuneration**

To manage research supporting environment and staff remuneration so as to provide adequate confidence to achieve research output that satisfies requirements.

#### **3.9.1 Policy statement**

To define excellence in research and coordinate the identification and rewarding of excellence within MUST which is guided by the Incentive Scheme.

#### **3.9.2 Strategies**

The University shall:

- (a) Provide research support services that include the provision and continuous improvement of modern management information systems and facilitate access to international literature and databases;
- (b) Work towards the creation of a stable internal conducive research environment. This shall include maintenance of equipment, accessories and support for purchase of basic consumables;
- (c) Provide basic financial management support and training to research coordinators as well as personnel in key research administrative units;
- (d) Provide support for publications and dissemination of research findings;

- (e) Ensure that a validated research outputs database will be used for all matters relating to staff research activities;
- (f) Develop and implement an attractive remuneration scheme for researchers including the provision of a research management allowance; and
- (g) Review the remuneration scheme on a regular basis, preferably after every three years.

### **3.10 Policy issue: Dissemination of research results and ethical considerations**

To plan the dissemination of research results to reach the intended consumers.

#### **3.10.1 Policy statement**

MUST shall ensure dissemination and commercialization of research results through the MUST Centre for Innovation and Technology Transfer (CITT).

#### **3.10.2 Strategies**

The University shall:

- (a) Require that all research proposals incorporate a component for dissemination of research findings at least in a local seminar, workshop, conference, or symposium to ensure local 'ownership' of research results. The same mode shall be used for international fora;
- (b) Ensure that the research reports follow the MUST standard format;
- (c) Direct that all research reports should be submitted for peer-reviewing before submission to the Institution Repository;
- (d) Require that each college conduct at least one research workshop annually which will review research plans,

progress, and outputs. Annual research workshops shall also include presentations of academic papers;

- (e) Prepare and submit research abstracts, research reports, or policy briefs to potential policy makers for action;
- (f) Encourage and support the dissemination of research findings through publication and exhibition both locally and internationally;
- (g) Encourage dissemination of research findings in the national language, where necessary;
- (h) Encourage commercialization of research results that have commercial value;
- (i) Ensure compliance with the Research Ethics Policy to guide ethical consideration in researches; and
- (j) Ensure that the Intellectual Property Rights (IPR) Policy governs ownership of research outputs.

### **3.11 Policy issue: Disposal of research resources**

To ensure sustainable management of research resources disposal and utilization.

#### **3.11.1 Policy statement**

The DPSRP shall coordinate the disposal of research resources in collaboration with the University Management, College, Centre, Department, or Directorate which hosted the research.

#### **3.11.2 Strategies**

The University shall:

- (a) Ensure that sponsored projects agreement must always include the terms and conditions for the disposal of tangible properties;
- (b) Ensure that during the life of the project all equipment or goods purchased with the research funds will not be sold,

- exchanged or otherwise disposed of without the prior approval of the University;
- (c) Ensure that all property accumulated during the period of research remain the property of MUST, unless stated otherwise in the research contract; and
  - (d) Give priority to the units which hosted the research when disposing the research resource.

### **3.12 Policy issue: Impact of research**

To design and evaluate research that has direct impact to the society.

#### **3.12.1 Policy statement**

MUST shall ensure that research proposals and research outputs support actions that enhance the livelihoods of the society.

#### **3.12.2 Strategies**

The University shall:

- (a) Ensure that all formulated research projects have a direct impact on the society;
- (b) Establish a feedback mechanism to assess research impact in addressing issues in the society; and
- (c) Utilize the feedback mechanism to foster continued refinement of the University's Research Agenda.

### **3.13 Policy issue: Research culture**

To ensure that research culture is one of the critical components in contemporary research practices which may include motivation to do research, accountability in reporting, ethical issues and nurturing of the junior researchers within the University.

### **3.13.1 Policy statement**

MUST shall standardize and harmonize the research process within the University as stipulated in the Research Policy and Operational Procedures

### **3.13.2 Strategies**

The University shall:

- (a) 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 safeguarded against any form of ideological expedience;
- (b) Instill a research culture through training of staff and students in research;
- (c) Promote and encourage research teamwork through creation of research groups and centers of excellence;
- (d) Encourage and promote research mentoring and nurturing amongst staff; and
- (e) Educate MUST staff on the Research Policy and Guidelines.

### **3.14 Policy issue: Ownership of research materials, data and outputs**

A key output of all research undertakings at MUST is the innovations that can be applied by industry and the general public. The process of technology transfer requires MUST to establish a system of protecting the Intellectual Property (IP) embodied in any innovation coming from research.

#### **3.14.1 Policy statement**

MUST shall put in place an Intellectual Property Rights (IPR) policy and enforce its operationalization.

### **3.14.2 Strategies**

The University shall:

- (a) Ensure all intellectual property arising out of research conducted at MUST shall belong to the University, unless stated otherwise;
- (b) Maintain and operationalize CITT which is responsible for protecting the intellectual property rights arising out of research conducted at MUST through patenting and/or other IP mechanisms;
- (c) Ensure that CITT works with researchers and other relevant external stakeholders' innovations with potential practical application;
- (d) Ensure that where innovation has been adopted for practical application, the researcher (s) shall be recognized accordingly in line with existing IPR Policy;
- (e) Ensure that all research materials and data transfer to internal and international collaborating institutions shall be governed by the Material Transfer Agreement (MTA)/Data Transfer Agreement (DTA) approved by MUST and/or respective competent national authority depending on the nature and type of materials/data; and
- (f) Ensure that all publications by students and staff that emanate from research or training activities at MUST shall indicate MUST as an affiliate institution of the author(s).

### **3.15 Policy issue: Cross-cutting issues (Gender, HIV/AIDS, and Environment and Climate change)**

MUST shall continue to sensitize staff and students on cross-cutting issues including Gender, HIV/AIDS, and Environment and Climate Change in their research



### **3.15.1 Policy statement**

The University shall articulate the MUST Research Policy on cross-cutting issues that include Gender, HIV/AIDS, and Environment and Climate change.

### **3.15.2 Strategies**

The University shall:

- (a) Sensitize all researchers on the content of MUST and National Gender Policies thus ensuring equal opportunities for all;
- (b) Encourage researchers to include an explicit statement in their proposals on how they have mainstreamed gender in the research project document;
- (c) Encourage researchers to produce gender disaggregated data which should inform the discussion of the results and conclusion;
- (d) Encourage gender consideration in forming a balanced research team comprising of all relevant groups (both men and women, youths, people with disabilities, junior and senior team leaders, and members) in the institution;
- (e) Continue to take measures against HIV/AIDS including raising awareness and encouraging regular voluntary testing and counseling;
- (f) Encourage researchers not to stigmatize people living with HIV/AIDS in their daily research and teaching activities in accordance with MUST and National HIV/AIDS policies; and
- (g) Support research and innovation to advance the understanding of HIV/AIDS;
- (h) Ensure that research activities comply with relevant national laws, policies, and regulations;

- (i) Ensure that researchers observe provisions of occupational safety and health and ensure that no environmental pollution is caused and at the same time ensure that greenhouse gasses emissions, deforestation, and overgrazing are being reduced; and
- (j) Encourage research and innovation to advance environmental protection, and climate mitigation and adaption.

## CHAPTER FOUR

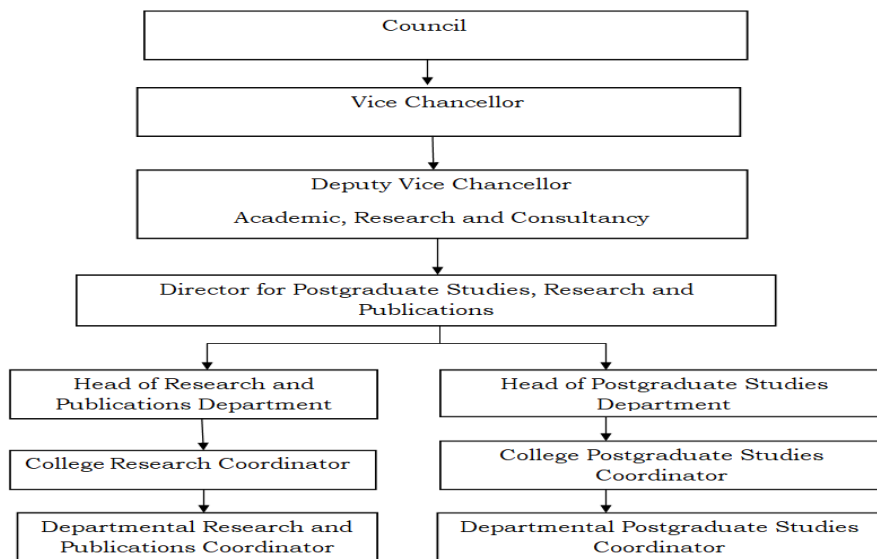
### POLICY COMMUNICATION AND IMPLEMENTATION

#### 4.1 Introduction

This chapter presents the organization structure and highlights the responsibilities of different offices, units, and obligations of stakeholders in the implementation of research activities.

#### 4.2 Organization Structure

The purpose of the administrative structure is to define and delegate responsibilities, to establish relationships for the purpose of enabling people to work and ensure effective systems and mechanisms for communication. The DPSRP is under the office of the Deputy Vice Chancellor Academic, Research and Consultancy (DVC-ARC) whose administrative structure is shown in Figure 1. The Directorate is composed of two departments namely; the Department of Postgraduate Studies (PSD) and Research & Publications Department (RPD).



**Figure 1: Administrative Structure of the Directorate of Postgraduate Studies, Research and Publications**

### **4.3 The Roles of Council**

The Council shall

- (a) Approve the Policy;
- (b) Approve the University research funds; and
- (c) Oversee the allocation and use of the funds as they become available based on the strategic direction of the University.

### **4.4 The Roles of the Vice Chancellor**

Vice Chancellor shall

- (a) Lead and oversee the implementation and performance of research policy in the University; and
- (b) Monitor and evaluate the performance of research funds.

### **4.5 The Roles of the Deputy Vice Chancellor-Academic, Research and Consultancy**

The Deputy Vice Chancellor -Academic, Research and Consultancy shall be responsible for overseeing the implementation and performance of research and development strategies at the University.

### **4.6 Roles of the Director of Postgraduate Studies, Research and Publications**

The Director of Postgraduate Studies, Research and Publications shall have the following roles and obligations:

- (a) Shall be the Secretary of the PSRPC;
- (b) Be the chief advisor to the DVC-ARC on research and publications matters;
- (c) Create awareness among MUST staff on the Research Policy and Operational Procedures;
- (d) Develop and coordinate strategic plans for research and publication in collaboration with Colleges, Centres, and Directorates;

- (e) Organize meetings, seminars, workshops, and conferences related to research and publication services;
- (f) Advertise and promote research and publication activities;
- (g) Develop a mechanism for monitoring the quality of research activities at the University in collaboration with the Directorate of Quality Assurance;
- (h) Instill a research culture through training of staff and postgraduate students in research;
- (i) Contribute towards fostering and the enhancement of research culture both within and outside the University; and
- (j) Promote and encourage research teamwork and networking.

#### **4.7 Roles of the Heads of Research and Publications and Postgraduate Studies Departments**

##### **(a) Roles of the Head of Research and Publications Department**

The Head of Research and Publications shall perform the following duties:

- (i) Be the Secretary of the Research and Publications sub-committee;
- (ii) Keep and update records of research activities undertaken at the University;
- (iii) Day to day operations and management of the research and publications activities;
- (iv) Report to the Director of Postgraduate Studies, Research and Publications;
- (v) Monitor of research and publications activities across the University;
- (vi) Spearhead the implementation of the MUST Research and Publications Policy;

- (vii) Communicate with research collaborators;
- (viii) Prepare budgets for research and publications activities;
- (ix) Liaise with College Research Coordinators to search for current research issues and submit to the PSRPC for further scrutiny;
- (x) Plan the schedule of annual activities and submit to the Committee for approval; and
- (xi) Perform any other duty as may be assigned by the higher authority.

**(b) Roles of the Head of Postgraduate Studies**

- (i) Shall oversee the defense and *Viva Voce* of Postgraduate Students;
- (ii) Advise the Director concerning all issues related to Postgraduate Studies;
- (iii) Plan and liaise with the heads of departments on submission and presentation of research concept notes by postgraduate applicants;
- (iv) Conduct postgraduate tracer studies and job market surveys in collaboration with the Internationalization and Convocation Unit (ICU);
- (v) Host symposia and scholarly events designed to bring together the academia to share their experiences in engaging with external constituencies;
- (vi) Establish and maintain professional, academic, and research networks nationally, regionally and internationally;
- (vii) Solicit resources from external sources to support the implementation of postgraduate studies;
- (viii) Liaise with ICU, to organize and conduct conferences, and symposia at the University;

- (ix) Establish exchange programmes and joint ventures emanating from national and international linkages in collaboration with the ICU;
- (x) Establish international contacts for students and staff and link them with organizations for collaboration in postgraduate studies;
- (xi) Coordinate admission of Postgraduate Students in collaboration with the Admissions Office;
- (xii) Maintain a database of postgraduate students; and
- (xiii) Perform any other duty as may be assigned by a higher authority.

#### **4.8 Roles of College/Departmental Research and Publications Coordinators**

The main stakeholders of the research policy and operational procedures are academic staff and students in their respective College/Departmental Research and Publications Coordinators.

College/Departmental Research and Publications Coordinators shall have the following roles and obligations:

- (i) Initiate, develop, and implement College/Departmental Research and Publications plans;
- (ii) Receive, discuss, vet and approve annual progress and financial reports of the College/Department related to Research and Publications;
- (iii) Promote, organize, market, and control all research and publications activities within the College/Department; and
- (iv) Organize meetings, seminars, and conferences related to Research and Publications in the College/Departments.

#### **4.9 Roles of the PSRP Committee**

In the light of the MUST vision and mission, the committee shall:

- (a) Oversee the delivery and enhancement of the research frameworks, ensuring that they meet internal and external customers' expectations;
- (b) To be proactive in influencing University-level policies to ensure that research interests are safeguarded;
- (c) Ensure effective academic staff and Postgraduate students' engagement in research;
- (d) Ensure that all unethical research actions are addressed, and support the sharing of good practice;
- (e) Suggest areas for improvement in research and publications and recommend to higher authorities;
- (f) To take action on recommendations and requests from Research and Publications;
- (g) Recommend Research and Publications matters for the attention by the University's higher authorities;
- (h) Propose and recommend on the objectives, guidelines, procedures, steps and standards related to Research and Publications; and
- (i) Ensure that activities and procedures conform to: Research Policy and Operational Procedures; MUST Research Agenda; Scholarly Publishing Guidelines, Guidelines for Handling Internal Calls for Research Grants; Guidelines for preparing research proposal thesis and dissertations and MUST Corporate Strategic Plan.

#### **4.10 Rights and obligations of stakeholders**

In the light of the MUST Vision and Mission; the rights and obligations of researchers/stakeholders will be as outlined below:

##### **(a) Researchers' rights**

Based on the MUST Vision and Mission, researchers' rights shall be to:



- (i) Adhere to the Guidelines on Scholarly Publishing; Guidelines for Handling Internal Call Grants; Research Proposals, Theses, Dissertations and Projects; and MUST Research Agenda; and
- (ii) Interpret intentions of the Policy.

**(b) Researchers' Obligations**

Based on the MUST Vision and Mission, researchers' obligations shall be:

- (i) As stipulated in the Research Policy and Operational Procedures; and
- (ii) As mutually agreed between parties and approved by the MUST Council.

## **CHAPTER FIVE**

### **OPERATIONAL PROCEDURES**

#### **5.1 Chapter Overview**

In order to standardize and harmonize research process in the University, the DPSRP shall provide guidelines in form of Research Operational Procedures. The basic documents that constitute the Operational Procedures are included in Guidelines for Approval of Research Proposals: Format for Research Proposals: Guidelines and Format for Evaluation of Research Proposals: Standard Research Budget Format: Research Contract Format: Research Progress Reporting Form: Format for the Final Research Report Guidelines for Research Report Peer Review and Guidelines for Research Rates.

#### **5.2 GUIDELINES FOR APPROVAL OF RESEARCH PROPOSAL**

##### **5.2.1 Initiation of a Research**

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

To ensure maximum efficiency and minimize administrative problems, a researcher is normally recommended to limit the number of research undertaken at any one time. The number and sizes of research will be dependent upon the Directorate's assessment of the individual researcher's ability to handle several researches 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. MUST encourages

international collaborative research and where funding is available, these should be given special preference.

### **5.2.2 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/Directorate Research Committee (DRC) with appropriate recommendations. However, if the DRC is not satisfied with the research proposal, there are three possible courses of action that it can take:

- (a) To return the proposal to the researcher(s) for review and subsequent resubmission;
- (b) To interview the researcher(s) and then either subject the proposal to (a) above or approve it subject to minor revision. Another outcome of the interview could be approval of the proposal as it is; and
- (c) To reject it outrightly if the committee is sufficiently convinced that the proposal is of a 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 may 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 rule, the DRC should limit its evaluation to a maximum of three months.

### **5.2.3 Action by the College**

The College Research Committee (CRC) will scrutinize the research proposal, especially the research objectives, research methodology, time schedule, phasing, etc. It shall particularly scrutinize the cost estimates and may make other specific recommendations on the area coverage and

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

The maximum evaluation period of a research proposal at College level should not exceed three months. For Researches funded at College level, the CRC has the final say on the approval of Research (with room for appealing to the Principal/Director).

The research shall be registered appropriately and both a copy of approved research proposal and the registration number forwarded to the Directorate of Research. For University funded research applications, the College research and publications committee shall make recommendations for funding to the appropriate University Research and Publication Committee (URPC).

#### **5.2.4 Action by University Research and Publication Committee (URPC)**

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

- (a) To accept the proposal for funding when the committee is satisfied;
- (b) To return the proposal to the URPC for review and subsequent resubmission if the guidelines are not followed or if the procedures have not been adhered to;
- (c) To approve it subject to minor revisions to be made by the applicant(s); and
- (d) To reject it outrightly 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 Chairperson of URPC who may choose to return it to the College Research Committee with recommendations.

### 5.2.5 Approval and Registration

All researches shall be registered with the Directorate responsible for research whether they are funded at College/School/Institute or University level. A research proposal shall be numbered serially preceded by the College/ and Department and year codes as follows:



The DPSRP shall coordinate research registration and maintain an up-to-date database of all research within the University.

### 5.2.6 Research Contract and Funding

An approved research proposal shall only be funded once the researcher(s) has signed a contract with appropriate offices. These shall be at College or University level depending on where funding is sourced. In any case, contracts signed at College level shall be deemed to be contracts with the University. The format for research contracts is included in Standards Research Budget Format.

### 5.2.7 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 Sample Research Contract 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 by the Departmental Research Coordinator.

In some cases, the DRC may wish to send the interim report(s) to an independent reviewer before approving the next phase. Such cases will involve research handling massive data that is not easy to interpret or research 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 for College funded research and by the MUST URC for MUST level funded research.

### **5.2.8 Final Research Report**

At the conclusion of the research, a final research report should be submitted in the format contained in Format for the Final Research Report. This should include all the data, results and findings obtained during the execution of the research. 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 guidelines for reviewers are given in Guidelines for Research Report Peer Review.

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.

These final research reports should have a standard front cover (Format for the final Research Report) and a unified printing format similar to the one demanded by international journals. All final research reports will have a unified code number e.g. CoHBS/BM/3\*/2023. The numbers marked with an asterisk (\*) should be in serial order.

At least six (6) copies of the final research report should be submitted to the URC for final approval. After the approval, these copies will be distributed as follows: Directorate of Postgraduate Studies, Research and Publications, CRC, Head of Department RP, Coordinator DRC, MUST Library and the section library where this exists. The abstracts of the final reviewed research reports should be published periodically in the respective College Research Abstracts.

### **5.2.9 Research Seminars**

The researchers shall be required to give a seminar/conference at the conclusion of their research work and shall also be required to give periodic seminars during the research work. 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).

## **5.3 FORMAT FOR APPLICATION OF RESEARCH GRANTS**

### **5.3.1 MUST Research Grant Application Form**

This Form consists of four sections. Inspect the checklist to ensure that all necessary documents are included prior to submission. When filling this application form please adhere to the following instructions:

- (a) Write in the template provided observing word limits indicated;
- (b) Unless otherwise indicated, acceptable text is Times New Roman, 12 font size, 1.5 spacing;

- (c) Both hard and soft copies of the proposal must be submitted for endorsement by Departments, Colleges, Directorates and centres;
- (d) After endorsements, hard and soft copies shall be submitted under dispatch to the Directorate of Research before the set deadline;
- (e) Soft copies of proposal should be saved in MS Word using the Principal Investigator's (PI) last name and Department as follows: <Macha Proposal Main Body- Business Dept 2020.docx>;
- (f) Submit a separate soft copy containing the budget summary and budget details in separate Ms-Excel worksheets saved as < Kagata Proposal Budget-Business Dept 2023.xlsx>; and
- (g) Applicants are forewarned that giving false information will lead to disqualification and disciplinary measures as per MUST Research Policy.

A softcopy of this form can be obtained from the DPSRP via Email Adress: [dpsrp@mustnet.ac.tz](mailto:dpsrp@mustnet.ac.tz)

#### **5.3.1.1 Checklist**

- i. Complete bio-data, contact information and qualification of researchers
- ii. Summary and main body of the research proposal
- iii. Declarations and signatures of the Principal Investigator and collaborators
- iv. Hard and soft copies (Ms Word and Excel) of proposal
- v. Endorsements by respective academic units, i.e., Departments, Colleges



Proposal No.	Name, Signature and date Official Stamp of Receiver	Department	College

Other formats may be accepted depending on the practice in the respective subject areas. In some cases, some sections may be ignored if the proposal is for basic research. AN

### 5.3.2 Bio-Data and Contacts of Researchers

DETAIL	Principal Investigator	Researcher 2
Surname		
First and middle name		
Sex (male or female)		
Date of birth		
Academic qualification (PhD, MSc, MA, BSc, BA, Other)		
Position (L,SL, AP, P)		
Department		
College		
University or Institution		
Physical Location (Office Block & Room Number)		
Postal address		
E-mail		
Telephone (Office)		
Mobile Telephone		

### 5.3.3 Bio-Data and Contacts for Research Collaborators

DETAIL	Researcher 3	Researcher 4
Surname		
First and middle name		
Sex (male or female)		
Date of birth		
Academic qualification (PhD, MSc, MA, BSc, BA, Other)		

Position (L,SL, AP, P)		
Department		
College		
University or Institution		
Physical Location (Office Block & Room Number)		
Postal address		
E-mail		
Telephone (Office)		
Mobile Telephone		

### **5.3.4 Research Bank Account Details (Where Applicable)**

<b>Attribute</b>	<b>Details</b>
Bank Name	
Bank Address	
Account Name	
Account Number	
Swift Code (if applicable)	

### **5.3.5 Research Outline**

#### **5.3.5.1 Research Title**

The title must be short and precise, depicting the general objectives of the proposed research.

#### **5.3.5.2 Summary of the Research Report**

This must contain all important elements of the proposed study including the type/ design of research study, the problem statement, justification and rationale, objectives, research questions/ hypothesis to be tested, methodology to be employed, expected findings and use and the budget requirement. This summary should not be more than 1000 words.

### **5.3.6 Main Body of Research Proposal**

#### **5.3.6.1 Introduction**

Give a background of the proposed research explaining its importance with regard to advancement of knowledge and socio-economic or technical

benefits. Explain the justification, relevance or rationale of the Research including the success factors motivated by prevailing conditions, facts, or underlying frameworks like institutional research agenda, national priority sectors or international ( e.g. MDGs) [ $\leq 550$  words maximum].

#### **5.3.6.2 Research Problem**

Give information about the research by defining the problem, outlining magnitude, effects, and extent of the problem supported by quantitative or qualitative data] [ $\leq 150$  words].

#### **5.3.6.3 Research Objectives**

[State the broad/overall objective that the proposed research shall contribute to and give the specific objectives which must be Specific, Measurable, Achievable, Realizable and Time bound (SMART) so as to facilitate monitoring and evaluation (M&E) of the research. The specific objectives should conform with research methodology] [ $\leq 250$  words]

#### **5.3.6.4 Literature Review**

[Give more information about the research by outlining recent work addressing the problem, and scholarly knowledge and knowledge gaps in the field, and hint on your proposed approach or solution. Support your case by citing recent literature 5-10 years old] [ $\leq 1,000$  words]

#### **5.3.6.5 Methodology**

[Explain the type and scope of the research study, where and by whom the study will be carried out. Describe equipment, utilities, tools, instruments, prototypes, case studies, models, reagents, and statistical software to be used for, data logging and analysis. State clearly if the research infrastructure is available, to be borrowed or will be acquired by Research. Methods of data collection must include laboratory analysis procedures or questionnaires depending on your specific field. Techniques of data analysis must be clearly specified] [1,000 words].

### 5.3.6.6 Research Findings

[Mention the tangible outputs envisaged from the research like prototypes, products, maps and non-tangible ones like processes, procedures, new knowledge, checklists or vocabulary] [≤ 250 words]

### 5.3.6.7 Plan of Action

[Use a Gantt Chart below to describe how the study will proceed in phases or yearly quarters after receipt of research funds. Your plan should outline major milestones and activities guided by research objectives and methodology, including: pre-testing (if any); data collection and analysis; report preparation; and dissemination of research findings].

### 5.3.6.8 Gantt Chart [Use font 9 to fill the Gantt Chart]

A Gant Chart Showing Schedule of Activities in Phases

No	Objectives	Activity	Phase I				Phase II				Phase III			
			1	2	3	4	5	6	7	8	9	10	11	12
		Month	1	2	3	4	5	6	7	8	9	10	11	12
1.	Objective 1	1												
		2												
		3												
2.	Objective 2	1												
		2												
		3												
		4												
3.	Objective 3	1												
		2												
		3												
		4												

### 5.3.6.9 Constraints and risks

[Point out any constraints or risks that may affect your Research and suggest ways to mitigate them], [150 words].

### 5.3.6.10 Roles of Collaborators and Research Assistants

[List all actors in the Research, their expertise and specific roles in the research Research].

	Name	Signature	Title	Institution	Role
1			PI		
2			R2		
3			R3		
4			R4		
5			RA		
Key to Titles: PI = Principal Investigator; R1....R4 = Researcher 1....4; RA= Research Assistant					

### 5.3.6.11 Budget

While adhering to approved research rates, give a budget that clearly indicates distribution of funds in three (3) Research phase. [Present a budget summary here, and a detailed budget in the Appendix] [Use Microsoft Excel spreadsheet templates provided].

DESCRIPTION		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, documentary)				
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 [ 8% ]				
	Total				

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

**5.3.6.12 Budget Justification**

[Based on the pie chart (from Excel) give justification for major cost items (>20%) in your budget] [≤ 150 words].

[State if the research work has or will be funded from other sources. If so, give co-sponsors details, and explain why further support is required to complement. Give details of any on-going work at your institution related to the research.

**5.3.6.13 Co-funding and related work**

Disinformation or false information shall lead to disqualification and/or disciplinary measures as per MUST Research Policy], [≤ 150 words].

**5.3.6.14 Ethical Considerations**

[Describe pertinent ethical issues which by design or otherwise may occur by undertaking the research. Explain how you will address them, including protection of human or animal subjects, clients rights,

confidentiality, intellectual property rights and environmental protection. Please refer to the MUST Research Ethics Policy on ethical conduct of research] [ $\leq$  150 words]

#### **5.3.6.15 References**

[Alphabetically give only those references cited in the proposal]

#### **5.3.6.16 Appendices**

##### **5.3.6.16.1 Curriculum Vitae of Researchers**

[Since bio-data of PI is given earlier, list up to a total of 15 recent publications by researcher(s) in the research area] [400 words].

##### **5.3.6.16.2 Detailed Budget for Phase 1**

SUPPORTING MATERIALS [Insert any other illustrations (graphics, photos, testimonials, equations, etc.), which support your proposal but could not be inserted in the body of the proposal. Any illustrations must be clearly labelled and referenced from the main body of the proposal] [one page maximum].

##### **5.3.6.16.3 Declaration and Signatures of Applicants**

We, the undersigned have read and understood the Guidelines and hereby declare that the information given is true to the best of our understanding.

1. Principal Investigator
2. Co-Principal Investigator
3. Collaborator

**5.3.6.16.4 Departmental Endorsement**

I ..... Head of the Department of ..... declare that the proposal has been scrutinized by the Departmental Research Committee and has been approved for submission to higher University levels.

.....

Signature and Stamp

Date

Head of Department

**5.3.6.16.5 College Endorsement**

I.....Principal/Director of ..... declare that this proposal has been approved by College Research committee for onward transmission to the Directorate of Research, Mbeya University of Science and Technology. Furthermore, if researchers receive the grant, a college will fully support the research to make it successful.

.....

Signature and Stamp

Date

Principal



## 5.4 FORMAT FOR EVALUATION OF RESEARCH PROPOSAL

### 5.4.1 Guideline and Format for Evaluation of Research Proposals

<b>Title and Investigator (s)</b>	
-----------------------------------	--

<b>S/N</b>	<b>Attribute/criteria</b>	<b>Criteria</b>	<b>Weighted Grade (%)</b>	<b>Score</b>	<b>Comments</b>
1	Summary if any (7 pts)	Short introduction	1		
		Goals/objectives	1		
		Brief Problem area	1		
		Brief methods	1		
		Expected output	1		
		Who (researchers), where (place of research) & when (duration)	1		
		- Budget	1		
2	Literature review: Is it comprehensive, relevant and up-to-date (15 pts)	-Adequacy (# of literature cited)	5		
		Recent Literature Review	5		
		Identification of research gap(s)	5		
3	Goals and objectives: Are these clearly stated and are they achievable?(10pts)	General objective/Specific	2		
		Clarity of the objectives	4		
		Realistic/Achievable within one year?	4		
	Statement of the problem and rationale:	Is the problem clear?	7		

4	Are these clearly stated?  Is the proposal well-reasoned? (14 pts)	Is the problem significant to knowledge, society, etc.			
5	Methodology: Is this properly designed, and is it related to all the objectives stated? (20 pts)	Is it related to objectives?	8		
		Is it properly designed to achieve the objectives?	8		
		Are Physical Resources available to accomplish the research outputs?	4		
6	Are the applicants capable of accomplishing the research? (14 pts)	- Capability (CVs)	4		
		Team work (Junior/ Senior) Collaboration	5		
		- Interdisciplinary	5		
7	Research Outputs (10 pts)	Tangible results (e.g. Prototype product, maps etc.)	10		
		Non-Tangible results (e.g. process, procedure, checklist, vocabulary, etc.).			
		New body of knowledge			
	Budget and justification: Is the budget realistic?	Realistic, well justified with Time Frame	7		

8	(10 pts)	Compliance with the approved rates?	3		
9	<b>Total Score (%)</b>		<b>100</b>		
	Conclusion: Do you recommend approval of this proposal?  <i>(tick the appropriate box)</i>	<b>Approved</b>	<b>Not approved</b>		

**Additional comments**

.....

.....

.....

.....

### 5.4.2 Scoring Matrix For Evaluating Must Research Grants

S/N	Attribute	%	Sub-criteria	Weight	Score [%]	Points	Comment
1	Title	3	Is the title compact, precise and reflecting general research objectives?				
2	Summary	6	Is the summary brief and capturing salient features of the research?				
3	Introduction	12	Is the research important, rational, and justified in line with MUST, national, and international agenda or frameworks?				
4	Problem Statement	12	Is the problem clearly defined?				
			Is the solution to problem likely to contribute knowledge in the field and is broadly significant to society, nation, etc.?				
5	Objectives	12	Clarity of general and specific objective.				
			Are the objectives SMART ( <i>Specific, Measurable, Achievable, Realizable and Time bound</i> ) given a budget of US\$..... in one year period?				

6	Literature review	12	Is the literature cited adequate and relevant?			
			Is the literature up-to-date, 5-10 years?			
			Are research gap(s) identified and authors' approach to the problem clear?			
7	Methodology	15	Is the methodology properly designed and in-line with objectives?			
			Are the research scope, geographical limits and other boundaries clearly outlined?			
			Are physical resources available to accomplish the research outputs?			
			Are data collection tools, lab procedures, and techniques for data analysis clearly explained?			
8	Research Output	7	Will the research produce: (i) tangible results (e.g. prototype product, maps, etc.); or (ii) non-tangible results (e.g. process, procedure, checklist, vocabulary, etc.); or (iii) new body of knowledge?			
9	Budget	8	Is the budget realistically distributed by phases within the time frame shown in the plan of action?			
			Is the budget mostly allocated to core-work rather than travel, meetings and seminars?			

			Are large portions (>20%) of the budget justified including co-funding?				
			Do the budget elements comply with MUST/Government approved rates?				
10	Capability	13	Researcher's publication(s) in the research area				
			Team work, gender mix, junior-senior mix.				
			Reflection of interdisciplinary work in composition of team and/or role of researchers				
	<b>Total</b>	<b>100</b>					

<b>Grade</b>	
--------------	--

**Researchers**

.....  
.....  
.....  
.....

**Department:** .....

**College:** .....

## **5.5 STANDARD RESEARCH BUDGET FORMAT**

### **5.5.1 Cost Estimates**

Cost estimates for research 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 materials (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 unforeseen activities
- xv) Research administrative costs - at least 12% of all costs

The cost estimates should conform to approved rates.

1. 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).
2. For consumables/materials, indicate the local/foreign cost component.
3. 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.



**5.5.2 Budget Format and Payment Schedule**

MBEYA UNIVERSITY OF SCIENCE AND  
TECHNOLOGY  
SAMPLE SUMMARY OF RESEARCH BUDGET

**College:** \_\_\_\_\_

**Research title:** \_\_\_\_\_

\_\_\_\_\_ **PI** \_\_\_\_\_

	DESCRIPTION	PHASES			Total
		Phase 1	Phase 2	Phase 3	
<b>A</b>	<b>DIRECT COSTS</b>				
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>B</b>	<b>TRAVEL</b>				
B.1	Local travel and per diems				
B.2	Seminars and conferences*				
	<b>Sub-total</b>				
<b>C</b>	<b>INSTITUTIONAL FEES [ 12% ]</b>				
	<b>Total</b>				

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

## 5.6 SAMPLE RESEARCH CONTRACT FORMAT

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MBEYA UNIVERSITY OF SCIENCE AND TECHNOLOGY

### 5.1.1 Contract For Research

Names of the Researcher(s)

1. \_\_\_\_\_

(Principal Researcher)

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

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, titled..... the details of which are contained in the attached approved proposal.
2. The duration of doing the research will be..... Months/Years.
3. The Mbeya University of Science and Technology (MUST) undertakes to provide funding for the proposal Research for the total amount of TZS..... subject to availability of funds.
4. The researcher(s) undertakes to abide with all applicable MUST 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 supporting staff, e.g. secretarial, technical and auxiliary will be from among the MUST staff/students. Permission to employ staff from outside MUST, if for an extended period of time and/or on regular basis, should be obtained from the Director of Research before the appointment is made.
7. MUST reserve the right to withhold payment partially or fully, if it is not satisfied with the progress of the Research and upon failure of the researcher to rectify the anomaly within the agreed timelines. MUST 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 meruit* refund the MUST payments received for the purposes of research.
9. The Principal researcher acknowledges that he/she is aware of the Mbeya University of Science and Technology Research and Intellectual Property Rights Policy which are to the effect that MUST shall own all intellectual property rights arising out of the research.
10. The research has been assigned a unified MUST Code No.....



## 5.7 RESEARCH PROGRESS REPORT FORMAT

### 5.7.1 Research Description

#### Section A: Summary Of Administrative Information

1.1 Research Number &

Title \_\_\_\_\_

1.2 Principal Researcher

Name: \_\_\_\_\_

Department \_\_\_\_\_

1.3 Period (Month /Year) covered by this  
report \_\_\_\_\_

1.4 Period (month/year) covered by previous progress report: from \_\_\_\_\_  
to \_\_\_\_\_

1.5 Starting date of

Research \_\_\_\_\_

1.6 Estimation duration of research date of estimated completion

Initial \_\_\_\_\_

Latest \_\_\_\_\_

1.7 Estimated cost of research (in TZ) \_\_\_\_\_

1.8 Funds allocated to research (in TZ) \_\_\_\_\_

### 5.7.2 Research Objectives

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

### 5.7.3 Progress Since Last Report

#### 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 per 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 Achieving Research 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 Research and state if they are expected to increase (or decrease) the duration, total cost, and/or likelihood of success of the Research. If findings indicate potentially fruitful alternative and/or additional lines of research, indicate so with sufficient explanatory information to ensure understanding by reviewers.

**5.7.4 Financial Statement Of Income And Expenditure During The Period Covered By The Report**

PERIOD COVERED (DATE) FROM TO _____ TO _____		Amount <sup>1</sup> Brought Forward	Fund <sup>2</sup> Received	Funds <sup>3</sup> expended	Balance <sup>4</sup>
1	Direct Expenditures				
2	Travel and Transport				
3	Per Diem				
4	Honoraria				
	<b>GRAND TOTAL</b>				

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 IV.

## **5.8 FORMAT FOR THE FINAL RESEARCH REPORT**

### **5.8.1 Research Report Content**

A research report should include the following headings:

- a. Abstract
- b. Acknowledgments
- c. Table of contents
- d. List of figures
- e. List of symbols
- f. Introduction
- g. Objectives
- h. Literature review
- i. Methodology
- j. Experimental details
- k. Results
- l. Analysis and Discussion of the results
- m. Conclusions and Recommendations
- n. References/Bibliography
- o. Tables
- p. Plates
- q. Figures
- r. Appendices

### **5.8.2 Report Format**

- (a) All headings should be left justified.
- (b) Line spacing should be single and fonts should be 12 cpi.



- (c) Left margin should be 1.5 in and 1 in on all other sides.
- (d) Typing should be on both sides of the A4 page.
- (e) Format for quoting reference numbers in the text and references should be standard. APA style, 6<sup>th</sup> ed. is recommended.
- (f) Report cover shall be as shown in the attached format.

**a. Examples:**

- (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 es 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.

**NB:** 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.

### **5.8.3 Electronic Format**

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

## 5.9 GUIDELINES FOR RESEARCH RATES

<b>THE DIRECTORATE OF POSTGRADUATE STUDIES RESEARCH AND PUBLICATIONS</b>			
<b>SUMMARY OF PROPOSED RESEARCH RATES</b>			
<b>S/N</b>	<b>ITEM</b>	<b>OLD RESEARCH RATE</b>	<b>PRPOSED RESEARCH RATES BY THE TEAM IN TZ</b>
1	Typing		
2	Lunch allowance		
3	Photocopy		
4	Public Transport-Shuttle service		
5	Mileage Allowance		
6	Payment to Research Assistants		
A	Non-graduates		
B	Undergraduates		
C	Graduates		
7	Stationaries/equipment and research materials		
8	Data entry charges		
9	Data analysis		
10	Translation		
11	Transcription		

### 5.9.1 POSTGRADUATE STUDIES, RESEARCH AND PUBLICATIONS SUBCOMMITTEES

Operations of the Postgraduate Studies, Research and Publications Committee (PSRPC)

The operations of PSRPC shall:

- a) Meet at least four times a year;
- b) Develop a work plan at the beginning of the fiscal year; and
- c) Prepare Agenda and write Minutes of PSRPC meetings by the secretariat.

#### **College Postgraduate Studies, Research and Publications Committee**

The Committee is responsible to the College Board for Postgraduate Studies, Research and Publications matters in the College. All College PSRP matters

shall be reported to the Director of Postgraduate Studies, Research and Publications.

### **Composition of the College Postgraduate studies, Research and Publications**

- a) Principal, who shall be the Chairperson;
- b) College Coordinator, who shall be the Secretary (as will be appointed by the College board);
- c) Heads of Departments; and
- d) Research Coordinators from each Academic Department.

### **Functions of College Postgraduate Studies, Research and Publications Committee**

The functions of committee shall:

- (a) Promote an Research and Publications culture in the College;
- (b) Determine from time to time the changes in Colleges' research and publications activities in compliance with the University Strategic Plan;
- (c) Monitor and evaluate research and publications activities to conform to university performance of research agenda;
- (d) Evaluate research activities executed by academic staff and postgraduate students and decide what can be extended under the support of the University;
- (e) Monitor annual reviews of research and publications activities and manage the outcomes of the reviews;
- (f) Prepare the annual research and publications report; and
- (g) Attend to specific issues as recommended by the PSRP Committee from time to time.

### **Operations**

College committee shall:

Meet at least four times per year while the College PSRP Coordinator shall be the secretary of the Committee.

### **Departmental Postgraduate Studies, Research and Publications Committee (DPSRPC)**

The committee is responsible to the Departmental Board for external links in the Department in conformity with the University's external links framework.

#### **Members of the committee**

The committee shall comprise:

- a) Heads of the department, who shall be the Chairperson;
- b) Postgraduate Studies, Research and Publications coordinator as the secretary (*appointed by the departmental meeting*); and
- c) Two staff (*Appointed by the Head of Department*).
- d) Two MUSTSO postgraduate representatives

### **Function of Departmental Postgraduate Studies, Research and Publications**

The functions of the committee shall be to:

- a) Promote an research and publications culture in the Department;
- b) Monitor Research and publications activities in the Department;
- c) Determine from time to time the changes in research activities to conform to the guidelines laid down
- d) Prepare the Semi and Annual Departmental research and publications reports; and
- e) Attend to specific issues in the Department as recommended by the College postgraduate studies, research and publications from time to time.

#### **Operations**

The Departmental Postgraduate Studies, Research and Publications shall:

Meet at least four times per year while Departmental postgraduate studies, research and publications Coordinator shall be the secretary of the Committee.

### **Tenure of Committee Membership**

Except for ex-officio members whose tenure shall be subject to their being in the office, all elected members of staff in PSRP Committees shall serve for three years and shall be eligible for re-appointment.

## **CHAPTER SIX**

### **MONITORING AND EVALUATION**

#### **6.1 Monitoring**

Monitoring is a continuous process to assess progress, identify bottlenecks. It focuses more on the process while evaluation is sporadic (done mid-term or end of the activity) to assess the achieved results against expected ones. The process of evaluation looks at the things that have happened, the processes and how activities have been implemented.

The main indicators for monitoring and evaluation include: input, process, output, outcome, impact and sustainability:

- (i) Inputs - refers to resources required to achieve a given objective (% of resources invested);
- (ii) Process - focuses on how objectives will be implemented and how it operates through the use of resources to accomplish the planned activities (efficiency of the process in comparison with inputs and outputs);
- (iii) Output –Products and services which result from the execution of activities;
- (iv) Outcome - what is likely to be achieved in short and medium-term/long term effects of the planned activities (extent of behavioral change of participants);
- (v) Impact - positive or negative, primary or secondary long-term effects produced by a development intervention, directly or indirectly, intended or unintended (positive or negative change); and
- (vi) Sustainability as learning- whether the participants in the planned activities have become capable of learning and managing the outcomes (Duration since its inception).

### 6.1.1 Tools for monitoring and evaluation

Some tools for monitoring and evaluation can be chosen from among others in the following list as deemed necessary:

- (i) **Case study:** A detailed descriptive narrative of individuals, departments, colleges, events, program, or time periods. They are particularly useful in evaluating situations and exploring qualitative impact.
- (ii) **Checklist:** A list of items used for validating or inspecting procedures/steps that have been followed, or the presence of examined behaviors;
- (iii) **Closed-ended (structured) interview:** A technique of interviewing that uses carefully organized questions that only allow a limited range of answers, such as “yes/no,” or expressed by a rating/number on a scale. Replies can easily be numerically coded for statistical analysis;
- (iv) **Community interviews/meeting:** A form of public meeting open to all community members. Interaction is between the participants and the interviewer, who presides over the meeting and asks questions following a prepared interview guide;
- (v) **Direct observation:** A record of what observers see and hear at a specified site, using a detailed observation form. Observation may be of physical surroundings, activities, or processes.
- (vi) **Focus group discussion:** Focused discussion with a small group of participants to record attitudes, perceptions, and beliefs pertinent to the issues being examined. A moderator introduces the topic and uses a prepared interview guide to lead the discussion and elicit discussion, opinions, and reactions;
- (vii) **Key informant interview:** An interview with a person having special information about a particular topic. These interviews are generally conducted in an open-ended or semi-structured fashion;

- (viii) **Mini-survey:** Data collected from limited participants, usually selected using non-probability sampling techniques. Structured questionnaires with a limited number of closed-ended questions are used to generate quantitative data that can be collected and analyzed quickly;
- (ix) **Most Significant Change:** A participatory monitoring technique based on stories about important or significant changes, rather than indicators. They give a rich picture of the impact of development work and provide the basis for dialogue over key objectives and the value of development programs;
- (x) **Open-ended interview:** A technique for questioning that allows the interviewer to probe and follow up topics of interest in depth (rather than just “yes/no” questions);
- (xi) **Participant observation:** A technique that requires the researcher to spend considerable time with the group being studied (days) and to interact with them as a participant. This method gathers insights that might otherwise be overlooked, but is time-consuming;
- (xii) **Participatory Rapid Appraisal:** This uses community engagement techniques to understand community views on a particular issue. It is usually done quickly and intensively – over a given period. Methods include interviews, focus groups, and community mapping;
- (xiii) **Questionnaire:** A data collection instrument containing a set of questions organized in a systematic way, as well as a set of instructions to the enumerator/interviewer about how to ask the questions (typically used in a survey);
- (xiv) **Rapid appraisal (or assessment):** A quick cost-effective technique to gather data systematically for decision making, using qualitative and quantitative methods, such as observations and sample surveys. This technique shares many of the characteristics of participatory appraisal (such as



triangulation and multidisciplinary teams) and recognizes that indigenous knowledge is a critical consideration for decision-making; and

- (xv) **Self-administered survey:** Written surveys completed by the respondent, either in a group setting or in a separate location. Respondents must be literate, for example, it can be used to survey teacher opinions.

## **6.2 Periodic Evaluation of the Policy**

This part describes the monitoring and evaluation framework for research and publications at MUST. The framework shall operate at three levels: University, College/Centers, and Departments.

### **6.3.1 University Level**

- (a) The DVC-ARC has responsibility of evaluating the University's Research performance. The DPSRP will advise the DVC-ARC on the University's performance, its status with regard to research funding sources available, opportunities for development and the impact and intensity of its research;
- (b) The DPSRP will maintain a database and publish an annual list of staff and students' publications; and
- (c) The DPSRP will carry out the following M&E responsibilities:
  - (i) Monitoring and Evaluation of staff and student research proposals;
  - (ii) Ensure compliance with research ethical standards;
  - (iii) Recommend for approval research proposals that meet standards;
  - (iv) Receive quarterly and annual reports from colleges;
  - (v) Coordinate large-scale and multidisciplinary research projects;
  - (vi) Conduct planned or incidental evaluation of research projects by staff or students;

- (vii) Conduct institutional conferences for research dissemination;
- (viii) Coordinate publication of research outputs into journals and books;
- (ix) Evaluation of research outputs for commercialization purposes;
- (x) Establish and recommend for approval the internal procedures for monitoring and evaluation of research projects: and
- (xi) Introduce research performance measurements and rewarding system.

#### **6.4 College/Centre/Directorate Level**

- (a) The relevant Principal or Director shall monitor the performance of College, or Directorate in accordance with the evaluation of the MUST Research Agenda.
- (b) College/Centre/Directorate boards or committees shall receive and discuss research and publication matters and make recommendations to the Research and Publications Committee of the College for improvement.
- (c) Colleges and Academic Centres/Directorates shall have strong research and publications committees to perform the following M&E activities:
  - (i) Receive and discuss proposals from both staff and students;
  - (ii) Monitor the supervision process of a student's research;
  - (iii) Monitor and evaluate seminar presentations at the college/directorate level;
  - (iv) Hold annual conferences where results of research activities will be disseminated;

- (v) Receive quarterly and annual reports from departmental research and publications committees; and
- (vi) Ensure implementation of the college research agenda.

## **6.5 Departmental Level**

- (a) Staff and their heads of departments are required to plan and implement performance targets for research and publications. The performance will be evaluated and rewarded annually;
- (b) Staff are required to submit full and accurate details of their research outputs as required by their Head of Department periodically. The information will be submitted to the College and to the DPSRP;
- (c) Departments will have a research and publications committee led by a senior academic staff. The committee will have the following M&E responsibilities:
  - (i) Monitor knowledge generation in their respective fields;
  - (ii) Prepare and monitor implementation of research projects within the departmental research agenda; and
  - (iii) Ensure adherence to the Research Quality Assurance Standards.

## **6.6 Evaluation Report**

The DPSRP in collaboration with the Directorate of Quality Assurance (DQA) shall develop and institute a process of evaluation, monitoring, and reporting on research quality performance at MUST based on the following indicators on an annual basis:

- (a) Research planning;
- (b) Research training;
- (c) Research degree completion rates;
- (d) Research publications per academic staff;
- (e) Peer reviewed research reports;

- (f) Facilities and access to information resources;
- (g) Research students' assessment of supervision;
- (h) Proportion of staff having published research output in the last three years;
- (i) Proportion of staff directly doing research;
- (j) Duration of research degree completion;
- (k) Indicators that measure society perceptions on the research that MUST staff do;
- (l) Number of clients continuously using MUST research services;
- (m) Number of local/international research assignments that MUST wins in a competitive environment;
- (n) Collaboration with regional and international institutions – establishment of active research networks;
- (o) Number of patents and copyrights;
- (p) Number of commercialized research results;
- (q) Number of research results dissemination events; and
- (r) Subsequent availability of funds for the research following completion and dissemination of a phase of the research.

## **6.7 Policy Review and Amendments**

Application of this 2<sup>nd</sup> edition of MUST Research Policy and Operational Procedures shall commence upon approval by the University Council and be amended as deemed necessary. In this regard, MUST shall Review the Policy after every three years.

## **BIBLIOGRAPHY**

- COSTECH (2021). National Research Priorities 2021/22 -2025/26. ISSN: 2507-7899
- Guidelines for Handling Internal Research Proposals for funding Mbeya Institute of Science and Technology (MIST), Research, Publications and Consultancy Policy, 2008
- Mbeya University of Science and Technology (MUST), Charter and Rules, 2013
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- Mbeya University of Science and Technology (MUST), Intellectual Property Rights, 2014
- MUST (2022). Corporate Strategic Plan: Five-year Rolling Action Programme 2022/23-2026/27
- Mbeya University of Science and Technology (MUST), Resource Mobilization Policy 2017
- Muhimbili University of Health and Allied Sciences (MUHAS), Research Policy Guideline, August 2020
- Sokoine University of Agriculture (SUA), Research Policy and Strategies, September 2018
- UDSM Research Policy and Operational Procedures, June 2015

**APPROVAL**

According to the ..... Council meeting of Mbeya University of Science and Technology (MUST) held on ..... item .....; this Research Policy and Operational Procedures has been read and approved.

Hon. Zakia Hamdani Meghji  
MUST COUNCIL CHAIRPERSON  
Signature.....  
Date.....

Prof. Aloys Ntanturo Mvuma  
MUST VICE CHANCELLOR  
Signature.....  
Date.....