# **MBEYA UNIVERSITY OF SCIENCE AND TECHNOLOGY**



# **RESEARCH POLICY AND OPERATIONAL PROCEDURES**

**AUGUST, 2020** 

#### FOREWORD

Mbeya University of Science and Technology (MUST) has an obligation to contribute to the 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 that have to be overcome. One such challenge relates to access to and availability of funding to its various programmes. MUST is likely to continue to compete with other institutions for dwindling financial resources from the Government. Nevertheless, the University will continue to contend for its rightful meager budgetary share for research. The second major challenge is to effectively utilise the available human and physical resources to optimize research impact at national and international level.

It is fundamental that MUST research contribution focuses on areas of national development priority in an effective manner. This task has to be performed in coordination with other stakeholders at national and regional levels. The University will continue to be proactive in the process of interpretation of national development objectives, direction and processes. 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 generation, exchange and utilization. Furthermore, the University will continue to retain its place as one of the most prestigious research institutions in Tanzania and worldwide while creating an attractive environment for research and development that provides enormous opportunities for researchers and innovators in science and technology. 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 August 2020

Page i

# **TABLE OF CONTENTS**

FOREWO	RD		i
TABLE O	F CONT	ENTS	ii
LIST OF A	ABBREV	VIATIONS AND ACRONYMS	v
DEFINITI	ON OF '	TERMS AND CONCEPTS	vi
CHAPTER	R ONE: I	BACKGROUND INFORMATION	1
1.1.	Introd	uction	1
1.2.	MUST	Vision	1
1.3.	MUST	Mission	2
1.4.	Situat	ional Analysis	2
1.5.	Justifi	cation of the Policy	3
CHAPTER	R TWO: I	POLICY BACKGROUND INFORMATION	4
2.1.	Introd	uction	4
2.2.	Policy	Vision	4
2.3.	Policy	Mission	4
2.4.	Policy	Goal	4
2.5.	Object	ives	4
	2.5.1.	Main Objective	4
	2.5.2.	Specific Objectives	4
2.6.	Policy	Philosophy	5
2.7.	Policy	Scope	5
CHAPTER	R THREI	E: POLICY ISSUES, STATEMENTS AND STRATEGIES	6
3.1.	Introd	uction	6
	3.1.1.	Policy Issues	6
	3.1.2.	Policy Statements	7
	3.1.3.	Strategic Issues in Research	7
	3.1.4.	Research Quality Assurance	7
	3.1.5.	Issues of Strategic Importance	8
	3.1.6.	University Research Priorities	9
	3.1.7.	Sources of Research Funding	10
	3.1.8.	Research Planning, Management and Capacity	
		Building	11

Page ii

	3.1.9. Internal Procedures for Approval, Control and	
	Monitoring of Research Process	13
	3.1.10. Collaborative Research	15
	3.1.11. Research Training, Performance, Contributions	
	and Sharing of Research Resources	17
	3.1.12. Staff Remuneration and Research Support	
	Environment	20
	3.1.13. Dissemination of Research Results and Ethical	
	Considerations	21
	3.1.14. Disposal of Research Resources	23
	3.1.15. Impact of Research	23
	3.1.16. Research Culture and Cross-Cutting Issues	24
CHAPTE	R FOUR: POLICY COMMUNICATION AND IMPLEMENTATION	26
4.1.	Communication	26
4.2.	Implementation	26
4.3.	Organization Structure	28
4.4.	Composition of the Postgraduate Studies, Research and	
	Publications Committee (PSRPC)	29
4.5.	Roles of the PSRP Committee	29
4.6.	Rights and obligations of stakeholders	
4.7.	Roles of the Heads of Research and Publications and	
	Postgraduate studies Departments	31
4.8.	Roles of the Director of Postgraduate Studies, Research and	
	Publications	32
4.9.	The Roles of the Deputy Vice Chancellor - Academic,	
	Research and Consultancy	33
CHAPTE	R FIVE: MONITORING AND EVALUATION	34
5.1.	Introduction	34
5.2.	Periodical Evaluation of the Policy	37
5.3.	University Level	37
5.4.	College/Centre Level	39
5.5.	Departmental Level	40
5.6.	Evaluation Report	40

5.7. I	Policy Review and Amendments	41
BIBLIOGRA	APHY: LIST OF ATTACHMENTS FOR OPERATIONAL	
	PROCEDURES	42
ANNEX I:	GUIDELINES FOR PROCESS OF APPROVING RESEARCH	
	PROPOSALS	44
ANNEX II:	FORMAT FOR APPLICATION OF RESEARCH GRANTS	49
ANNEX III:	FORMAT FOR EVALUATION OF RESEARCH PROPOSAL	59
ANNEX IV:	STANDARD RESEARCH BUDGET FORMAT	66
ANNEX V:	SAMPLE RESEARCH CONTRACT FORMAT	70
ANNEX VI:	RESEARCH PROGRESS REPORT FORMAT	72
ANNEX VII:	FORMAT FOR THE FINAL RESEARCH REPORT	75
ANNEX VIII	: GUIDELINES FOR RESEARCH REPORT PEER REVIEW	78
ANNEX IX:	GUIDELINES FOR RESEARCH RATES	81
CONCLUSI	ON	82

# LIST OF ABBREVIATIONS AND ACRONYMS

AP	Associate Professor
CEO	Chief Executive Officer
CITT	Centre for Innovation and Technology Transfer
CRC	College Research Committee
DRC	Department Research Committee
DVC ARC	Deputy Vice Chancellor Academic Research and Consultancy
GDP	Gross Domestic Product
IPR	Intellectual Property Rights
MDGs	Millennium Development Goals
M&E	Monitoring and Evaluation
MIST	Mbeya Institute of Science and Technology
MTC	Mbeya Technical College
MRIW	MUST Research and Innovation Week
MSC	Most Significant Change
MUST	Mbeya University of Science and Technology
PI	Principal Investigator
PRA	Participatory Rapid Appraisal
PSRP	Postgraduate Studies, Research and Publications
QAD	Quality Assurance Directorate
RCEs	Research Centres of Excellence
RPD	Research and Publications Department
SMART	Specific, Measurable, Achievable, Realistic and Time bound
SL	Senior Lecturer
URPC	University Research and Publication Committee

## **DEFINITION OF TERMS AND CONCEPTS**

## (a) Monitoring

Monitoring is a continuous process to assess progress, identify bottlenecks and it 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 works by asking very basic questions about the nature of human thought, the nature of the universe, and the connections between them. 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 behaviour or expected results.

# CHAPTER ONE BACKGROUND INFORMATION

# 1.1. Introduction

The history of Mbeya University of Science and Technology (MUST) dates back from 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 programmes 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 to a fully-fledged University namely Mbeya University of Science and Technology (MUST). The University was granted Mbeya University of Science and Technology Charter, 2013 on 20<sup>th</sup> August 2013.

The purpose of this document is to guide general conduct of research and provides operational procedures to carry out 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 of year 2020 the time of developing this policy, MUST has done the following intervention to foster research related activities:

- (a) The establishment of the Directorate of Postgraduate Studies, Research and Publications;
- (b) The establishment of Research and Publications Committee;
- (c) Training and sensitizing academic staff members on research related issues; and
- (d) Review of the MUST Research and Publications Policy.

However, before the transformation of the Research and Publications Department into the Directorate of Postgraduate Studies, Research and Publications, research and publications activities were taken care of by the respective department. Currently, research activities are administered in the Department of Research and Publications under the current Directorate. Thus, it was inevitable to revise the existing Research and Publications Policy to accommodate changes made in the university-wide transformation.

## **1.5.** Justification of the Policy

The formulation of a Research Policy and Operational Procedures is in the context of its revised mission and implementation strategies. Although, the functions are all intertwined within the three core functions of education and training, research and public service, 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, cultural, scientific and technological development;
- (d) Promote economic, political, social, cultural, scientific and technological research with particular reference to the interest of mankind; and
- (e) Establish mutually negotiated, beneficial and durable links within institutions of learning and research nationally, regionally and globally.

This Research Policy and Operational Procedures 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 constantly be aligned with national, regional or even global development direction. This Policy is therefore in-line with the national and regional development strategy.

#### **CHAPTER TWO**

## **POLICY BACKGROUND INFORMATION**

### 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 both basic and applied 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 enhance 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 and allocation to experts;
- (f) Guide handling of multidisciplinary research requiring different expertise within the University and beyond;
- (g) Guide solicitation of research funds within the University and from development partners;
- (h) Guide on proper utilization of research funds; and
- Guide on optimum utilization of University research facilities (workshops and laboratories).

# 2.6. Policy Philosophy

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

# 2.7. Policy Scope

The Research Policy 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 Research Policy and Operational Procedures, policy issues, statements and strategies.

## 3.1.1. Policy Issues

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. In the light of the vision and mission presented, the following ten focal areas of the policy have been identified for articulation:

- (a) Strategic issues in research;
- (b) Research Quality Assurance;
- (c) Issues of strategic importance;
- (d) University research priorities;
- (e) Sources of research funding;
- (f) Research planning, management and capacity building;
- (g) Internal procedures for approval, control and monitoring of research process;
- (h) Collaborative research;
- (i) Research training, performance, contributions and sharing of research resources;
- (j) Staff remuneration and research support environment;
- (k) Dissemination of research results and ethical considerations;
- (l) Disposal of research resources;
- (m) Impact of research; and

(n) Research culture and cross-cutting issues.

## **3.1.2.** Policy Statements

# 3.1.3. Strategic Issues in Research Objective

Generate new understanding through research.

#### **Policy Statement**

MUST shall adhere to its roles in research, evaluation, transfer of knowledge, and technology development to national social progress and economic growth.

## 3.1.4. Research Quality Assurance

#### Objective

To ensure the management of research is planned and is systematic so as to provide adequate confidence that research outputs satisfy the specified requirements for quality in-line with MUST Quality Assurance Policy.

#### **Policy Statements**

In this regard, MUST shall:

- (a) Develop and disseminate research quality guidelines;
- (b) Ensure that research application is in-line with the relevant guidelines;
- (c) Ensure that approval of research applications take into consideration research quality checklist;
- (d) Monitor quality and number of publications resulting from research done by staff of various ranks;
- (e) Identify and monitor target group(s) for dissemination of research results;
- (f) Conduct surveys to obtain feedback on quality and value of research results;

- (g) Develop and disseminate standard quality indicators for research resources solicitation; and
- (h) Conduct peer review of research performed at MUST at an interval of not more than five years.

The Directorate shall include a Research and Publications Department (RPD) to work towards enhancing overall research performance. The performance shall be based on quantity and quality of the research outputs and efficiency of achieving them within the MUST Corporate Strategy Plan. The Directorate shall work closely with the Directorate of Quality Assurance (DQA) to enhance research quality. Emphasis shall be placed on strategies for research resource mobilization, distribution and efficient utilization.

## 3.1.5. Issues of Strategic Importance

#### Objective

To ensure that University issues of strategic importance are achieved.

## **Policy Statements**

In order to achieve this, MUST shall:

- (a) Be involved in interpretation and implementation of national and regional development objectives;
- (b) Build research capacity of MUST researchers;
- (c) Ensure optimal utilization of MUST researchers;
- (d) Evaluate research quality through quality assurance system;
- (e) Emphasize, institutionalize and facilitate dissemination and sharing of research results;
- (f) Establish research centres and gradually transforming these into Research Centres of Excellence (RCEs);

- (g) Strengthen research methodology courses at both undergraduate and postgraduate levels;
- (h) Strengthen, upgrade and modernize laboratories; and
- (i) Enhance research dissemination through national and international research reports and journals.

To achieve the goal, MUST shall implement priority areas and research themes in-line with MUST Research Agenda.

## 3.1.6. University Research Priorities

## Objective

To address national and regional development needs as reflected in the National Research and Development Policy in line with MUST Vision and Mission as well as the MUST Corporate Strategic Plan.

## **Policy Statements**

In collaboration with other stakeholders, MUST shall:

- (a) Adhere to its 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 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 annual research workshop that will receive and review progress made by each College in the implementation of the research programme;

- (f) Seek to participate in relevant national and international forums for the implementation of the research programme;
- (g) Develop and review the research programme every five years with the objective of ensuring relevance of the research thrust;
- (h) Ensure that basic research receives an appropriate priority in the development of research agenda;
- Set up the institutional framework for the establishment and operation of research centres of excellence within the Mbeya University of Science and Technology; and
- (j) Participate fully in MUST Research and Innovation Week (MRIW).

To achieve the goal, MUST shall identify national and regional development needs in line with University Vision and Mission.

# 3.1.7. Sources of Research Funding

# Objective

To ensure funding remains the most important factor in research performance.

# **Policy Statements**

For sustainability and relevance, the main source of research funds shall still be the Government of the United Republic of Tanzania. In this regard, MUST shall:

(a) Contend, in collaboration with other research institutions, for an increased share of national financial resources allocated for research. One percent of the GDP shall form the target benchmark in line with the National Research and Development Policy 2010;

- (b) Advocate for performance-based research funding from the Government. Such funding could take into account the success in attracting research students, in attracting research funds from diversity of sources and in the quality and output of its research publications;
- (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) Continue to solicit research funds from sources other than public sources including international and local bodies, both public and private. Solicitation of funding will be encouraged and facilitated at individual, centre, departmental, institute, school, college and university levels;
- (e) Provide general information on possible sources and modes of research funding from within and outside the University on regular basis; and
- (f) Review from time to time the appropriateness of the existing structure for the directorate responsible for research.

Funding and quality of outputs remain one of the most critical issues that govern the success in the conduct of research at the MUST. A key strategy to address this challenge is to aggressively seek for research funds. Instead of leaving this task to individual academic units, the Directorate shall actively seek information on potential research and disseminate the information on regular basis.

# 3.1.8. Research Planning, Management and Capacity Building Objective

To ensure that research is performed within a framework, which defines among others, targets, responsibilities and indicators.

## **Policy Statements**

MUST in close coordination and monitoring of research activities under established plans shall:

- (a) Strengthen and equip a core office responsible for the overall research coordination at the University level;
- (b) Facilitate the establishment/strengthening of research administration infrastructure linking the Directorate responsible for research with colleges, Directorates, centres and departments. The administrative infrastructure shall aim at facilitating the research process and creating transparency in the whole research activities;
- (c) Ensure that staff are fully involved in the research planning process;
- (d) Maintain a good balance between teaching, research and consultancy;
- (e) Strengthen the capacity for research planning and management at all levels;
- (f) Create a mechanism by which academic staff members are motivated to conduct research; and
- (g) Create research centres in academic unit.

# **Policy Strategy**

To achieve the objective, 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. The Directorate shall be availed a minimum of 2% contribution from all research funds flowing into the University. This includes annual government research grants.

# 3.1.9. Internal Procedures for Approval, Control and Monitoring of Research Process

## Objective

To put in place an operational mechanism of conducting research such that there is uniformity in the process.

## **Policy Statements**

In regard to this, MUST shall:

- (a) Ensure that staff members are aware of the National Research Agenda and participate in translating it into MUST Research Agenda of their respective academic disciplines.
- (b) Give priority to researches within the MUST Research Agenda when approving research funding. Research proposals have to demonstrate that they are within the approved Agenda.
- (c) Follow one general framework which guides the preparations and approval of research. The framework addresses the following issues/processes:
  - (i) Initiation of a research;
  - (ii) Formats of research proposals (Annex I);
  - approval process for (iii) Scrutiny and research proposals (Annex II). This shall focus on quality, relevance. need, soundness and resources requirements (including financial resources). This will clearly spell out the roles and powers of different units within the relevant University administrative hierarchy (a sample research proposal valuation form, Annex III);
  - (iv) Planning and budgeting guidelines, including applicable rates for cost estimates (a budgeting format, Annex IV);
  - (v) Financial regulations governing financing of research;

- (vi) Procurement of equipment and consumables; these have to be within relevant University procurement policies and procedures and, in principle, all equipment are a property of the Mbeya University of Science and Technology;
- (vii) Registration of research whether internally or externally funded;
- (viii) Standard contracts between the funding agency, the University and the researcher(s) (an example of a research contract, Annex V);
- (ix) Progress reporting requirements, control and monitoring (an example of a research progress report format, Annex VI);
- (x) Regulations regarding employment within research; these have to be within approved HRM policies; and
- (xi) Formats for research reports (Annex VII);
- (d) Ensure that research proposals are subjected to MUST approval process before being accepted for funding;
- (e) 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;
- (f) 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
- (g) As far as practically possible, financier proposed contract formats shall only be signed where MUST interests are safeguarded.

To achieve the goal, MUST shall ensure that guidelines of Research Agenda, Scholarly Publishing, Internal Call for Research Proposals, Preparing Research Proposals, Theses, Dissertations and Projects are adhered.

# 3.1.10. Collaborative Research

## Objective

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

## **Policy Statements**

In order to ensure that there is uniformity in the process, MUST shall:

- (a) Promote collaborative research where there are potential benefits to the University;
- (b) Recognize two forms of collaboration: external collaboration is one involving a university academic unit and an entity or entities outside the University, and an internal collaboration involving two or more academic units within the University;
- (c) Promote external collaboration that will include but not limited to other universities in and outside Tanzania, research institutions, industrial partners and nongovernmental 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 serve 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 participate in designing the proposal so that the University serves as a subcontractor. This policy applies even in cases in which the applicant does not receive compensation through the grant;

- (f) Insist on internal collaborative researches to be inter and multi-disciplinary in nature;
- (g) Ensure that inter and multi-disciplinary research are hosted in the academic units where the principal researcher belongs;
- (h) Require that the hosting department also be the department where the majority of the research activities will be conducted;
- Require that respective components of inter and multidisciplinary research be approved by the relevant unit, which is college or department;
- (j) Demand that if the implementing units are not in the same college/directorate/centre; approval at 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;
- Insist that staff participating in the inter or multi-disciplinary collaborative have an obligation to report progress to their own department and shall have to report to the hosting department through the principal researcher;
- (m) Ensure that the collaborating academic units make provisions for administrative costs; and
- (n) Require that the Corporate Counsel vet collaborative research agreements.

To achieve the objective, the Directorate shall:

 (a) Be the main outlet of institutional research information to external stakeholders in collaboration with other relevant University authorities;

- (b) Coordinate internal and external linkages on all matters related to research; and
- (c) Put in place an operational mechanism of conducting research in collaboration with other local or international research bodies.

# 3.1.11. Research Training, Performance, Contributions and Sharing of Research Resources

# **Objective 1**

To facilitate transmission of knowledge and skills through training within and between the research and wider communities.

## **Policy Statements**

In regard to this, MUST shall:

- (a) Strengthen and emphasize on research training at both undergraduate and postgraduate levels through ensuring that there is a significant, relevant and quality researchtraining component in the curricula;
- (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) Emphasize that research training be one of the criteria in the approval of research proposals;
- (d) Facilitate staff in writing fundable proposals; hence, research methodology courses 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 postdoctoral levels to be conducted at the Mbeya University of Science and Technology;

- (f) Devise an allocation of research training scholarships to different academic units on the basis of performance and demand; and
- (g) Encourage post-doctoral and research associate programmes.

## **Objective 2**

To manage research and ensure that it is well planned and is systematic so as to provide adequate performance reward that satisfies the specified requirements for quality in-line with MUST Quality Assurance Policy.

#### **Policy Statements**

In this regard, MUST shall:

- (a) Establish and operationalize a system with transparent criteria/indicators to measure research excellence;
- (b) Evaluate research performance of individuals, academic units and multi-disciplinary research teams on an annual basis; and
- (c) Reward research performance at individual, academic unit and research teams each year. Rewards shall be those that encourage improved performance in research.

#### **Objective 3**

To manage research and ensure that it is well planned and is systematic so as to contribute to research outputs that satisfy the specified administrative infrastructure requirements.

#### **Policy Statements**

In this regard, MUST shall:

(a) Ensure that research overhead contribution is shared amongst research administrative units at different administrative levels. Sharing of the administrative overheads shall ensure that priority is given to where research activity is taking place. In this respect, the University will retain 10% of the research funds as expenses for management issues of research funds while 90% of it will be used to carry out research activities (as detailed in MUST Resource Mobilization Policy, 2017 page 13); and

(b) The sums accrued by the respective units shall be accounted for using University Financial Regulations and Procedures.

#### **Objective 4**

To manage research and ensure that it is well planned and is systematic so as to provide adequate sharing of research resources available at the University and other institutions.

#### **Policy Statements**

In order to achieve this, MUST shall:

- (a) Ensure that Colleges and Departments have transparent and objective criteria of making research opportunities known to members of staff and for allocating such opportunities;
- (b) Encourage sharing of research resources in order to utilize fully the available research resources;
- (c) Encourage and coordinate sharing of information and information sources of academic value. Such sources shall include books, journals, electronic information and sources of such electronic information through the Internet (e.g. electronic databases); and
- (d) Set up mechanisms and procedures for utilizing and sharing resources and facilities across colleges.

### **Policy Strategy**

 (a) Ensuring participation of MUST researchers in evolving the National and Regional Research Agenda;

- (b) Facilitating dialogue between researchers and research clients;
- (c) Hosting the research portal/repository at MUST Website; and
- (d) Forming research centres and centres of excellence, postdoctorate programmes and research associates and chairs.

# 3.1.12. Staff Remuneration and Research Support Environment

# **Objective 1**

To manage research and ensure that staff remuneration is well planned in-line with incentive scheme.

## **Policy Statements**

In order to achieve this, MUST shall:

- (a) Develop and implement an attractive remuneration scheme for researchers including the provision of research management allowance; and
- (b) Review the remuneration scheme on a regular basis, preferably after every three years.

# **Objective 2**

To manage research support environment and ensure that it is planned and systematic so as to provide adequate confidence that research output satisfies the specified requirements for quality in-line with MUST Quality Assurance Policy.

## **Policy Statements**

In this regard, MUST 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; and
- (c) Provide basic financial management support and training to research coordinators as well as personnel in key research administrative units.

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

# 3.1.13. Dissemination of Research Results and Ethical Considerations

## **Objective** 1

To disseminate research results and ensure that it is planned and is systematic so as to reach the intended consumers.

## **Policy Statements**

Subject to the Intellectual Property (IP) Policy, MUST shall:

- (a) Require that all research proposals incorporate a component for dissemination of research findings activities as well as organization of at least a local seminar/workshop/conferences/symposium to ensure local 'ownership' of research findings. The same mode shall be used for international fora;
- (b) Ensure that the research report follow a standard format as indicated in Annex VIII;
- (c) Direct that all research reports be submitted for peerreviewing in-line with the review guidelines indicated in Annex IX;

- (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 to potential policy makers/policy briefs for action;
- (f) Encourage and support the publication of research findings/publications in local media and accessible databases (electronic or otherwise) for wider accessibility;
- (g) Encourage publication of research findings in the local and international media;
- (h) Dissemination of research findings in the national language, where necessary;
- (i) Commercialize research results that have commercial value;
- (j) Formulate Research Ethics Policy to guide ethical considerations in all research; and
- (k) MUST Intellectual Property Rights (IPR) Policy govern ownership of research outputs.

- (a) Dissemination and commercialization of research results through the MUST Centre for Innovation and Technology Transfer (CITT) as appropriate;
- (b) Establishing and publishing a regular Research Bulletin and Research Annual Report (as part of MUST Annual Report) or any other similar publication indicating the status of research activity within MUST; and
- (c) Keeping as custodian of research output on behalf of the University.

Page 22

# 3.1.14. Disposal of Research Resources

# Objective

To manage disposal of research resources and ensure that it is planned so as to optimize its utility.

# **Policy Statements**

In this regard, MUST shall:

- (a) Ensure that all properties accumulated during the period of research remain the property of MUST, except as otherwise provided in the research contract; and
- (b) Give priority to the units which hosted the research.

# **Policy Strategy**

To coordinate the process of implementation of the Policy through setting up of internal administrative links with other relevant offices at the top University Management level (horizontal linkages) and with researchers through colleges and departments (vertical linkages) on disposal of research resources.

# 3.1.15. Impact of Research

# Objective

To formulate research that has direct impact to the society.

# **Policy Statements**

In regard to this, MUST shall:

- (a) Establish a feedback mechanism to assess research impact in addressing issues in the society; and
- (b) Utilize the feedback mechanism to foster continued refinement of the University's Research Agenda.

# **Policy Strategy**

Ensuring that research proposals and research outputs support actions that enhance the livelihoods of the society.

# 3.1.16. Research Culture and Cross-Cutting Issues

# **Objective** 1

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.

## **Policy Statements**

In order to achieve this, MUST 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 undergraduate and postgraduate students in research;
- (c) Contribute towards fostering and enhancement of research culture both within and outside the University;
- (d) Promote and encourage research teamwork through creation of research groups and centers of excellence;
- (e) Encourage and promote research mentoring and nurturing amongst staff; and
- (f) Educate MUST staff on the Research Policy and Procedures.

# **Objective 2**

To clearly articulate MUST Research Policy on cross-cutting issues that include environment, gender and other factors of inequality.

## **Policy Statements**

In this regard, MUST shall:

 (a) Ensure that research activities comply with relevant national laws, policies and regulations; and (b) Ensure equitable access to research resources and benefits from research results.

# **Policy Strategy**

To standardize and harmonize research process within the University. The Directorate shall provide the basic documents that would constitute the Operational Procedures are included as Annexes I - IX of this Policy.

#### **CHAPTER FOUR**

### POLICY COMMUNICATION AND IMPLEMENTATION

### 4.1. Communication

Management of research data and dissemination of research results has to be planned and controlled so as to protect data while reaching the intended consumers. In regard to this, MUST shall:

- (a) Maintain and continuously update a MUST research activity database. In this respect selected information shall be published on regular basis onto a MUST Research Web Page;
- (b) Set up and maintain an accessible electronic research output database that shall contain at least full abstracts of the research reports and other related publications;
- (c) Compile and organize for the printing of a hard copy of a research bulletin containing abstracts of research on annual basis;
- (d) Seek for and furnish information related to research fundings to academic units on regular basis; and
- (e) Produce and continuously update good brochures to market MUST research services.

## 4.2. Implementation

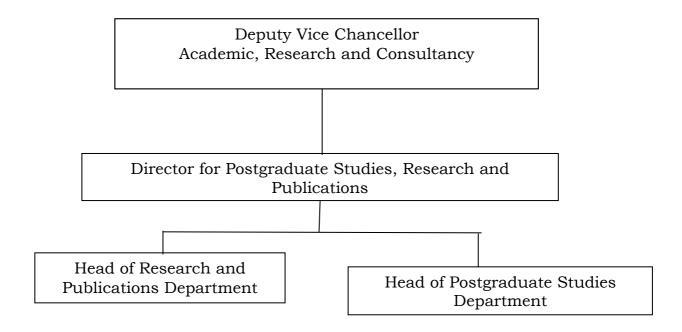
Identification of sources and management of research resources has to ensure that it is planned and is systematic so as to achieve the intended objectives. In this regard, MUST shall:

- (a) Identify possible research funding sources: national; and international; and strategies for mobilization/accessing the same;
- (b) Ensure that pertinent information relating to specific research funding opportunities is passed on to relevant University Unit(s);

- (c) Publicize general information on possible sources and modes of research funding on regular basis. This information shall be available in hard and web-based e-format.
- (d) Organize regular research resource mobilization workshops in which new opportunities for research funding shall be presented and discussed;
- (e) Facilitate the liaison process with research donors where such donors have been identified through the Directorate;
- (f) Establish liaison relationships with other national stakeholders to form pressure/lobbying groups to contend for an increased share of research funding from Government, the private sector and the international donor community;
- (g) Work closely with potential researchers in preparing research proposals for submission to potential donors;
- (h) Compile relevant reports of various research for onward transmission to the donors by the Directorate;
- Propose specific operational modalities in-line with MUST Research Policy for the various research funding sources for approval of the University Research and Publication Committee (URPC);
- (j) Ensure that a research budget sufficient to carry out planned priority research is submitted to the Government and other sources and that adequate funds are actually allocated for such research activities and are effectively utilized for the purpose;
- (k) Where the potential for multi-disciplinary research exists, initiate the formation of such teams which once formed, shall be left to operate under the approved modalities of multidisciplinary research teams; and
- (l) Compile MUST Annual Research Report that summarizes annual activities performed under all research grants in a standard format to be approved by Chief Executive Officer (CEO) of MUST or similar organ.

## 4.3. 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 communications. The Postgraduate Studies, Research and Publications Directorate 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 Department of Research and Publications (RPD). This Policy deals specifically with the issues related to research and publications activities only.



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

S/N	Designation	Role
1	Deputy Vice Chancellor Academic, Research and Consultancy	Chairperson
2	Director of Postgraduate Studies, Research and Publications	Secretary
3	Director of Undergraduate Studies	Member
4	Director of Library Services	Member
5	Dean of Students	Member
6	Director for Centre of Virtual and Continuing Education	Member
7	Two students representatives (Gender-wise)	Members
8	Director of Planning and Investment	Member
9	Director of Estates and Technical Services	Member
10	Director of Quality Assurance	Member
11	Director – ICT Services and Statistics	Member
12	Director of Public Services and External Links	Member
13	Director for Centre of Innovation and Technology Transfer	Member
14	All Principals	Members
15	Head of Research and Publications	Secretariat
16	Head of Postgraduate Studies	Secretariat
17	Head – Examination	Member
18	Head of Admission Office	Member
19	Public Relations Office (PRO)	Member

# 4.4. Composition of the Postgraduate Studies, Research and

# **Publications Committee (PSRPC)**

# 4.5. 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 it meets internal and external customers' expectations;
- (b) 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) Take action on recommendations and requests from Research and Publications;
- (g) Recommend Research and Publications matters to the attention of the University higher authorities;
- (h) Approve the Research and Publications urgent matters related to:
  - i. Research and Publications Department; and
  - ii. Postgraduate Studies Research issues.
- Propose and recommend on the objectives, guidelines, procedures, steps and standards related to Research and Publications; and
- (j) Ensure that activities and procedures conform to: Research Policy and Operational Procedures; MUST Research Agenda; Scholarly Publishing; Internal Calls for Research Proposals; Research Proposals, Theses, Dissertations and Projects Policy and MUST Strategic Plan.

# 4.6. Rights and obligations of stakeholders

In the light of the MUST vision and mission; the rights and obligations of researchers/stakeholders will include:

# (a) Researchers' Obligations

Based on MUST vision and mission, researchers' rights shall:

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

# (b) Researchers' Rights

Based on 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 MUST Council.

# 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:

- Shall be the Secretary of the Research and Publications sub-committee;
- (ii) Keeping and updating records of research activities undertaken at the University;
- (iii) Day to day operations and management of the research and publications activities;
- (iv) Answerable to the Director of Postgraduate Studies, Research and Publications;
- Monitoring of research and publications activities across the University;
- (vi) Spearhead the implementation of MUST Research and Publications Policy;
- (vii) Make communications with research collaborators;
- (viii) Preparing budgets for research and publications activities;
- (ix) Search for current research issues and submit to the Committee for further scrutiny; and
- (x) Plan the schedule of annual activities and submit to the Committee for approval.

# (b) Roles of the Head of Postgraduate Studies

- (i) Advise the Director concerning all issues about Postgraduate Studies;
- (ii) Plan and Liaise with the heads of departments on submission and presentation of research concept notes by postgraduate applicants;
- (iii) Conduct postgraduate tracer studies and job market surveys in collaboration with the Directorate of Public Services and External Links;

- (iv) Host symposia and scholarly events designed to bring together the academia to share their experiences in engaging with external constituencies;
- (v) Establish and maintain professional, academic and research networks nationally, regionally and internationally;
- (vi) Solicit resources from external sources to support the implementation of postgraduate studies;
- (vii) Liaise with the Directorate of Public Services and External Links to organize and conduct conference services and symposia at the University;
- (viii) Establish exchange programmes, joint ventures emanating from national and international linkages in collaboration with the Directorate of Public Services and External Links.
- (ix) Establish international contacts for students and staff and link them with organizations for collaboration in postgraduate studies;
- (x) Coordinate admission of Postgraduate Students in collaboration with admission office;
- (xi) Maintain a database of Postgraduate Students; and
- (xii) Perform any other duty as may be assigned by higher authority.

# 4.8. 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:

- (i) Be the chief advisor to the DVC-ARC on research and publications matters;
- (ii) Educate MUST staff on the Research Policy and Operational Procedures;
- (iii) Develop and coordinate strategic plans for research and publications in collaboration with academic departments;

- (iv) Organize meetings, seminars and conferences related to research and publications services;
- (v) Advertise and promote research and publications activities;
- (vi) Develop mechanism for monitoring the quality of research activities at the University in collaboration with the Directorate of Quality Assurance;
- (vii) Instill a research culture through training of postgraduate students in research;
- (viii) Contribute towards fostering and the enhancement of research culture both within and outside the University; and
- (ix) Promote and encourage research teamwork and networking.

# 4.9. The Roles of the Deputy Vice Chancellor - Academic, Research and Consultancy

Deputy Vice Chancellor shall be responsible for overseeing the implementation and performance of research and development strategies at the University.

# CHAPTER FIVE MONITORING AND EVALUATION

# 5.1. Introduction

## (a) Monitoring

Monitoring is a continuous process to assess progress, identify bottlenecks and focuses more on the process while **evaluation** is sporadic (done midterm 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);
- 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 to inputs and outputs);
- (iii) Output number to products and services which result from the execution of activities;
- (iv) Outcome what is likely to be achieved in short and mediumterm/long term effects of the planned activities (extent of behavioural 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).

## (b) Tools for monitoring and evaluation

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

- (i) Case study: A detailed descriptive narrative of individuals, departments, colleges, events, programme, 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 that procedures/steps have been followed, or the presence of examined behaviors;
- (iii) Closed-ended (structured) interview: A technique for 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. Observation is a good technique for collecting data on behavior patterns;
- (vi) Focus group discussion: Focused discussion with a small group (usually 8 to 12 people) 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 such as Heads of Departments; Principals; DVC-ARC and VC. These interviews

are generally conducted in an open-ended or semi-structured fashion;

- (viii) **Mini-survey:** Data collected from interviews with 25 to 50 individuals, 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 (MSC):** 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 (semi-structured) 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 in departments, colleges and at University level. This method gathers insights that might otherwise be overlooked, but is timeconsuming;
- (xii) Participatory Rapid Appraisal (PRA): 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 decisionmaking; 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).

# 5.2. Periodical Evaluation of the Policy

Monitoring and evaluation of research activities help the organization to generate and manage relevant information of maintenance of standards, improvement and future planning. Without effective monitoring and evaluation, it would be impossible to judge if the research activities are in the right direction, whether progress and success can be claimed, and how future efforts might be improved. This part describes a monitoring and evaluation framework for research and publications at MUST. The framework operates at three levels: University, College, and Departmental.

## 5.3. University Level

- (a) The Deputy Vice Chancellor responsible for academic, research and consultancy has responsibility for the evaluation of the University's Research performance. Annually the Director of Postgraduate Studies, Research and Publications will advise the DVC-ARC on the University's performance, its status with regard to external research funding sources available, opportunities for development and the impact and intensity of its research;
- (b) The Directorate of Postgraduate Studies, Research and Publications will publish an annual list of staff and students publications; and

- (c) The Directorate of Postgraduate Studies, Research and Publications will be improved to carry out the following M&E responsibilities:
  - (i) Monitoring and Evaluation of staff and student research proposals;
  - (ii) Ensure compliance to research ethical standards;
  - (iii) Approve research proposals that meet standards;
  - (iv) Receive quarterly and annual reports from colleges;
  - (v) Coordinate large-scale and multidisciplinary research projects;
  - (vi) Conduct planned and incidental evaluations 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 Approval of Research Procedures:
    - Internal procedures for approval control and monitoring of research projects provides the guiding framework for the approval control and monitoring of research process and outputs. Tools for internal research administrative process are also suggested. In principle, all research proposals have to be subjected to department and college approval process before being accepted for funding irrespective of the source of funding and that researchers are to enter into a research contract with MUST when the project has been approved irrespective of the source of funding.
  - (xi) Introduce Research Performance and Rewarding system:

A transparent mechanism for research performance measurement shall be established. The mechanism shall be applied to evaluate research performance of individuals and multi-disciplinary research teams on an annual basis and reward of research performance at individual, department/college and research teams each year shall be effected on the basis of criteria set.

## 5.4. College/Centre Level

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

## 5.5. 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 supply full and accurate details of their research outputs as required by their Head of Department. This will be done annually. The information will be supplied to the College and to the Directorate of Research and Publications;
- (c) Departments will have research and publications committees to be 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;
  - (iii) Prepare Research Quality Assurance where there will be a development and disseminate research quality guidelines/checklist while ensuring that these are used for application review, performance monitoring and evaluation; and
  - (iv) Institute a peer review system for research performed.

# 5.6. Evaluation Report

The Directorate in collaboration with the Quality Assurance Directorate (QAD) 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 FTE 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 degrees;
- (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.

# 5.7. Policy Review and Amendments

Application and review of this Policy shall commence up on approval with the University Council and be reviewed as deems necessary. In this regard, MUST shall:

- (a) Enforce adoption of the MUST Research Policy and Operational Procedures by all members of staff (including affiliates) and students involved in MUST research within and/ or outside the University;
- (b) Review the Policy after every five years;
- (c) Allow Constituent Colleges (if any) to adapt and customize this policy to suit their functions and organizational set-up; and
- (d) Revoke the first Edition of the Research Policy and Operational Procedures upon coming into force of this Research Policy and Operational Procedures.

The Operational guidelines and tools shall be reviewed on а regular/continuous basis to accommodate changes in the operating environment. The Directorate responsible for research within MUST shall be the custodian of the Research Policy on behalf of the University, and shall therefore bear the responsibility of ensuring that it continuously meets both the internal and external stakeholders' requirements. Additional tools may be necessary to accommodate the new attributes of the Third Edition of the Research Policy. These may further need to be customized in line with developments in the organizational structure of the Mbeya University of Science and Technology.

#### **BIBLIOGRAPHY**

- 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
- Mbeya University of Science and Technology (MUST) Consultancy Policy, 2014
- Mbeya University of Science and Technology (MUST), Intellectual Property Rights, 2014
- Mbeya University of Science and Technology (MUST, Strategic Plan 2012/2013-2016/17
- Mbeya University of Science and Technology (MUST), Resource Mobilization Policy 2017
- Muhimbili University of Health and Allied Sciences (MUHAS), Research Policy Guideline, August 2011
- Sokoine University of Agriculture (SUA), Research and Publication Policy

UDSM Research Policy and Operational Procedures, 2008

#### LIST OF ATTACHMENTS FOR OPERATIONAL PROCEDURES

- Annex I Guidelines for Approval of Research Proposals
- Annex II Format for Research Proposals
- Annex III Guidelines and Format for Evaluation of Research Proposals
- Annex IV Standard Research Budget Format
- **Annex V** Sample Research Contract Format
- Annex VI Research Progress Reporting Form
- **Annex VII** Format for the Final Research Report
- Annex VIII Guidelines for Research Report Peer Review
- Annex IX Guidelines for Research Rates

#### **ANNEX X:** Postgraduate Studies, Research and Publications Subcommittees

# ANNEX I: GUIDELINES FOR PROCESS OF APPROVING RESEARCH PROPOSALS

# 1.0 Initiation of a Research

A research proposal should be prepared by interested researchers in accordance with the format given in **Annex II.** 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 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.

# 2.0 Action by the Departmental Research Committee (DRC)

The proposal should be discussed by the DRC. Once the DRC is satisfied with the relevance, the need, soundness and the financial estimates of the submitted research proposal it will be forwarded through proper channels to the College/Directorate, Bureau or Institute Research Committee (CRC) 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 outright if the committee is sufficiently convinced that the proposal is of sub-standard nature in both the content and presentation.

In case a research proposal is rejected and the applicant is not entirely satisfied with the decision, one can appeal to the Head of Department who 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.

# 3.0 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 Postgraduate Studies, Research and Publication. 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).

## 4.0 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:

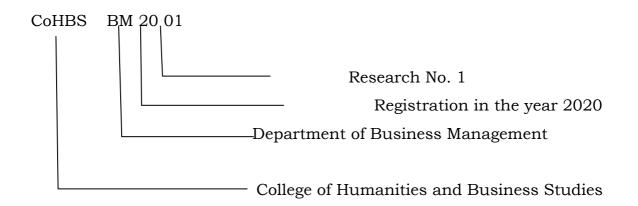
- a. To accept the proposal for funding when the committee is satisfied;
- b. To return the proposal to the URPC for review and subsequent resubmission if the guidelines are not followed or if the procedures have not been adhered to;
- c. To approve it subject to minor revisions to be made by the applicant(s); and

d. To reject it outright if the committee is sufficiently convinced that the proposal is of sub-standard nature in both the content and the presentation.

In case a research proposal is rejected and the applicant is not entirely satisfied with the decision, one can appeal to the Chairperson of URPC who may choose to return it to the College Research Committee with recommendations.

# 5.0 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 proceeded with College/ and Department and year codes as follows:



The Directorate of Postgraduate Studies, Research and Publication shall coordinate research registration. The Directorate shall also maintain an up-to-date database of all research within the University.

# 6.0 Research Contract and Funding

An approved research proposal shall only be funded once the researcher(s) has signed a contract with appropriate offices. 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 Annex IV.

#### 7.0 Interim Progress Reports

At the end of each phase, the researchers are required to produce interim progress

and format for such progress reports is given as Annex V. 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.

# 8.0 Final Research Report

At the conclusion of the research, a final research report should be submitted in the format contained in Annex VII. 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 Annex VIII.

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 (see Annex VII) 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\*/2020. 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.

#### 9.0 Research Seminars

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

#### ANNEX II: FORMAT FOR APPLICATION OF RESEARCH GRANTS

#### **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: <Kagata 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 2020.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 <u>the DPSRP via Email Adress</u>: <u>dpsrp@mustnet.ac.tz</u>

#### CHECKLIST

i. Complete bio-data, contact information and qualification of researchers

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

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

# 1.1 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 (P	hD,	
MSc, MA, BSc, BA,		
Other)		
Position (L, SL, AP, P)		
Department		
College		
University or Institution		
Physical Location (Office		
Block & Room Number)		
TPRESEARCH POLICY &	OPERATIONAL PRO	C E D U R E S Pag

E-mail	
Telephone (Office)	
Mobile Telephone	

# 1.2 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		

# **1.3 RESEARCH BANK ACCOUNT DETAILS** (where applicable)

Attribute	Details
Bank Name	
Bank Address	
Account Name	
Account Number	
Swift Code (if applicable)	

# **RESEARCH TITLE**

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

#### 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.

## 2. 0 MAIN BODY OF RESEARCH PROPOSAL

## **2.1 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) [≤550 words maximum].

# 2.2 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].

## 2.3 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] [≤ 250 words]

# 2.4 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]

## 2.5 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].

## 2.6 RESEARCH OUTPUT

[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]

## 2.7 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].

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

No	Objectives	Activity		Pł	iase	;		Ph	ase			Ph	ase	
					I			]	I			Ι	II	
		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												

A Gant Chart Showing Schedule of Activities in Phases
---

# 2.7.2 Constraints and risks

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

# **2.7.3 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; R1R4 = Researcher 14; RA=						
Rese	earch Assistant					

(Summary only)

[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].

		Phase	Phase	Phase	Toto1	
DES	CRIPTION	1	2	3	Total	
A	DIRECT COSTS					
A.1	Equipment and instruments					
	Prototypes, models and					
A.2	software					
	Consumables (reagents, films,					
A.3	tapes)					
	Research materials (samples,					
A.4	data, maps)					
	Field expenses (RAs, labour,					
A.5	tools)					
	Dissemination (fliers,					
A.6	documentary)					
A.7	Stationery and report writing					
A.8	Communication					
В	TRAVEL					
B.1	Local travel and per diems					
B.2	Seminars and conferences*					
	Sub-total					
С	INSTITUTIONAL FEES [ 8% ]					
	Total					
*International seminars and conferences shall be handled (administr						

# **Budget Summary**

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

Page 55

# **2.8.3 Budget Justification**

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

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

# 2.8.4 Co-funding and related work

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

## 2.9 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]

## 2.10 REFERENCES

[Alphabetically give only those references cited in the proposal]

## **APPENDICES**

#### **CURRICULUM VITAE OF RESEACHERS**

[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].

#### **DETAILED BUDGET**

#### **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].

#### 3. DECLARATIONS, SIGNATURES AND ENDORSEMENTS

## 3.1 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

# 3.2 DECLARATION AND ENDORSEMENTS BY THE HOST INSTITUTION

# **3.2.1 Departmental Endorsement**

Signature and Stamp Head of Department Date

# **3.2.2 College Endorsement**

I.....Principal/Director of ..... .....declare that this proposal has been approved by College Research Committee for onward transmission to the Directorate of Postgraduate Studies, Research and Publication, 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 Principal Date

# ANNEX III: FORMAT FOR EVALUATION OF RESEARCH PROPOSAL

# Format 1: Guideline and Format for Evaluation of Research Proposals

Title and	
Investigator (s)	

			Weighted		
SN	Attribute/criteria	Criteria	Grade (%)	Score	Comments
		Short introduction	1		
		Goals/objectives	1		
		Brief Problem area	1		
		Brief methods	1		
	Summary if any (7				
1	pts)	Expected output	1		
		Who (researchers), where			
		(place of research)			
		& when (duration)			
			1		
		- Budget	1		
		-Adequacy (# of literature			
	Literature review: Is it	cited)	5		
	comprehensive,				
	relevant				
	and up-to- date (15 pts)				
2		Recent Literature Review	5		
		Identification of research			
		gap(s)	5		
	Goals and objectives: Are	General objective/Specific	2		
	5	Clarity of the objectives			
TRES	EARCH POLICY <sup>C</sup>	& OPERATIONAL PRO	CEDURES	; P	age 59

ΜU

achievable?(10pts)

	3		Realistic/Achievable within one year?			
				4		
		Statement of the problem and rationale:		7		
		Are these clearly stated?	Is the problem significant to knowledge, society, etc.			
	4	Is the proposal well-reasoned? (14 pts)				
		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	0		
	5		achieve the objectives?	8		
	5		Are Physical Resources available to accomplish the research outputs?	4		
		Are the applicants	- Capability (CVs)	4		
		capable of accomplishing the research2 (14 pts)	Team work (Junior/ Senior)			
	6		Collaboration			
			- Interdisciplinary	5		
			Tangible results (e.g.			
18	TRES	EARCH POLICY	GORERATIONAL PROS	CEDURE	\$ F	age 60

МU

7	Research Outputs (10 pts)	etc.) Non Tangible results (e.g. process, procedure, checklist, vocabulary, etc.). New body of knowledge		
	justification: Is the	Realistic, well justified with		
8	budget realistic? (10 pts)	Compliance with the	7	
0		Compliance with the approved rates?	3	
9	Total Score (%)		100	
	Conclusion: Do you recommend approval of this proposal? (tick the appropriate box)		Not approved	

# **Additional comments**

# Format 2: SCORING MATRIX FOR EVALUATING MUST RESEARCH GRAN

new

Development

of

method

Value

for.....

(TZS).....

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

1				I		
			Is the literature cited adequate and relevant?			
	Literature					
6	review	12	Is the literature up-to-date, 5-10 years?			
			Are research gap(s) identified and authors' approach to			
			the problem clear?			
			Is the methodology properly designed and in-line with			
			objectives?			
			Are the research scope, geographical limits and other			
			boundaries clearly outlined?			
7	Methodology	15	Are physical resources available to accomplish the			
			research outputs?			
			Are data collection tools, lab procedures, and techniques for			
			data analysis clearly explained?			
			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?			
	Research					
8	Output	7				

			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			
9	Budget	8	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?			
			Researcher's publication(s) in the research area			
	0 1 11	1.0	Team work, gender mix, junior-senior mix.			
10	Capability	13	Reflection of interdisciplinary work in composition of			
			team and/or role of researchers			
		10				
	Total	0				
	Researche					
rs						

.....

Department: .....

College: .....

# ANNEX IV: STANDARD RESEARCH BUDGET FORMAT

#### 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.

#### 2. Budget Format and Payment Schedule

MBEYA UNIVERSITY OF SCIENCE AND TECHNOLOGY SAMPLE SUMMARY OF RESEARCH BUDGET

ΡI

**College:** 

Research

**Title**:

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

	12% ]		
	Tota		
	1		

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

# MBEYA UNIVERSITY OF SCIENCE AND TECHNOLOGY

### **CONTRACT FOR RESEARCH**

MUST

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.

- The duration of doing the research will be......
  Months/Years.
- 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 RESEARCH POLICY & OPERATIONAL PROCEDURES Page 70

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.....

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

Principal Researcher	Witness
College	_Date
(Principal	)
DPSRP	_Date
DVC ARC	Date

Copy: DPSRP

#### ANNEX VI: RESEARCH PROGRESS REPORT FORMAT

# 1.0 RESEARCH DESCRIPTION SECTION A: SUMMARY OF ADMINISTRATIVE INFORMATION

1.1	Research Number & Title		
1.2	Principal Researcher		
	Name: D	Department	
1.3	Period (Month /Year)covered by this r	eport	
1.4	Period (month/year) covered by previo	ous 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)		

#### 2.0 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.

## 3.0 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.

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

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

- 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.

# ANNEX VII: FORMAT FOR THE FINAL RESEARCH REPORT

### 1.0 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
- 1. Analysis and Discussion of the results
- m. Conclusions and Recommendations
- n. References/Bibliography
- o. Tables
- p. Plates
- q. Figures
- r. Appendices

# 2.0 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.

#### 3.0 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.

# **MBEYA UNIVERSITY OF SCIENCE AND TECHNOLOGY**



# FINAL RESEARCH REPORT

# (TITLE OF THE RESEARCH REPORT)

**Research Report No:** 

**Authors:** 

1.

2.

4.

- 3.
- 4.

(Date, Month, Year)

### ANNEX VIII: GUIDELINES FOR RESEARCH REPORT PEER REVIEW

#### 1. General Evaluation

**Editorial quality** Comment:

## Layout

Comment:

Length

*Comment:* 

# Quality of

## References

Comment:

Adherence to general requirements (fonts, line spacing,

margins etc.).

Comment:

# 2. Detailed Evaluation

Abstract: Does the abstract adequately summarize the report?

- □ Yes
- No

Comment:

**Introduction:** Is the introduction sufficiently detailed for this form of research?

- 2 Yes
- No

Comment:

**Objectives:** Are the research objectives clear and do they reflect what has been achieved in the research?

- □ Yes
- □ No

Comment:

Literature review: Is the literature review relevant, sufficient and up to date?

- □ Yes
- No

Comment:

Research methodology: Is the research methodology sufficiently described?

Yes

No

Comment:

**Experimental details:** Are the experimental details well described and can they be repeated?

Yes

No

Comment:

Results: Are the results expected accurate and well presented?

Yes

No No

Comment:

**Analysis and discussion of the results:** Is the analysis accurate and exhaustive?

□ Yes

Comment:

Is the discussion of the results accurate, exhaustive and conclusive?

- 2 Yes
- No

Comment:

**Conclusions and recommendations:** Are the conclusions and recommendations relevant and consistent with analysis?

• Yes

No

Comment:

Do the conclusions and recommendations match the research objectives?

- Yes
- 🗆 No

Comment:

Are the references/bibliography relevant, exhaustive and up-to- date?

- Yes
- No

Comments:

# 3. Recommendations

Would you recommend that the report be published?

- Without changes
- With minor changes
- With major revisions
- Not to be published due to poor quality

Reasons:1.

2. 3. 4.

Reviewer's Name: \_\_\_\_\_

Reviewer's

Signature:

\_\_\_\_\_Date:\_\_\_\_\_

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

# THE DIRECTORATE OF POSTGRADUATE STUDIES RESEARCH AND PUBLICATIONS

#### CONCLUSION

The Research Policy and Operational Procedures aim at creating uniformity, transparency and internal efficiency in prioritizing, planning, implementing and monitoring of the research process at MUST thereby strengthening its research capacity. This is in line with the requirements of University Strategic Plan 2017/2018–2021/2022.

The MUST Research Policy maps among others the processes of identification of research needs and prioritization; research identification and initiation; preparations and approval procedures for proposals, soliciting of funds; quality assurance of research; dissemination of research results and evaluation.

It is designed to serve both internal and external customers. Internally, it serves members of MUST staff as researchers as well as meet internal administrative requirements while externally it has to be clear and acceptable to external partners, either as research collaborators, funding agencies or target stakeholders. It is hoped that the Policy will enable MUST to meet its broad research objectives in order to address its mission both in the short and long run.