



UNIVERSITY OF DAR ES SALAAM

UDSM RESEARCH POLICY AND OPERATIONAL PROCEDURES

Second Edition

2008

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"The African Union shall advance the development of the continent by promoting research in all fields, in particular in science and technology"
Article 3m of the Constitutive Act of the African Union, Lomé, Togo, 11th July, 2000.

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Foreword

The University of Dar es Salaam (UDSM) is obligated to contribute to Tanzania's social progress and economic growth through research, education and service to the community. It is recognized as one of the most capable research institutions in the country with highly skilled personnel, specialised equipment and the mandate to generate new understanding through research. It is clear, however, that there are tremendous challenges that have to be overcome. One such challenge is funding. UDSM is likely to continue competing for dwindling financial resources from the government. Nevertheless, the University will continue its dialogue with the government for a separate budget line for research. The second major challenge is to put to effective use our human and physical resources both internally as well as externally, with willing partners.

It is fundamental that UDSM's research contribution is focused effectively on areas of national priority. The identification of priority areas is a task that has to be performed in coordination with other stakeholders at national and regional level. The UDSM continues to be proactive in the process of defining national development objectives, direction and processes.

Effective contribution in national development demands increased internal efficiency. This requires clear mechanisms for performing research, coupled with transparent internal research administration processes. It is the objective of the second edition of the UDSM Research Policy and Operational Procedures to provide a clear reference framework for research, clarifying various concerns. These concerns include identification of research priorities and their match with internal capabilities, funding sources and mechanisms and planning and management of the research process. They also include quality assurance, research collaboration, interdisciplinary research and ethical issues in research. Dissemination of research outputs, intellectual property rights of these outputs and monitoring of research effectiveness are also areas addressed by the Policy. The second edition has drawn both from experiences from the implementation of the First Edition of the Research Policy of 1998 as well as best practices elsewhere.

This document - *Research Policy and Operational Procedures* - for the University of Dar es Salaam addresses the needs of both internal and external customers either as research collaborators, funding agencies or research clientele. In this way we shall have played our role in ensuring that Tanzania keeps pace with the global revolution in knowledge production and its use, that the University is an attractive site for research and development investment and that it provides opportunities for our researchers and innovators. This way not only will we be the leaders in producing basic knowledge, but we will also be instrumental in disseminating new knowledge to our community, and provide training for the researchers of tomorrow.



Prof. K. S. Mukandala

Vice Chancellor
University of Dar es Salaam

September, 2008

Executive Summary

In recognition of the role of research in national development, the inaugural conference of the Council of Ministers of Science and Technology in the framework of the New Partnership for Africa's Development (NEPAD) held from 6-7 November 2003 in Johannesburg, South Africa, acknowledged that scientific advances and technological innovations are driving forces for economic growth and sustainable development and that there was need for adopting multidisciplinary approaches, including the social sciences or humanities, in research and development. However, the Ministers noted that the ability of our countries to create, diffuse and utilize scientific and technical knowledge is a major determinant capacity of African countries to bring about meaningful development and therefore reaffirmed their commitment to pursue all measures possible to increase public expenditure on research and development to at least 1 per cent of GDP per annum. Similar sentiments have been expressed in the Millennium Development Goals Initiative and the Tanzania's Vision 2025.

Further, capacity building in university research has been recognized as a fundamental element for the revitalization of African universities. This is necessary to enable universities to generate new knowledge for themselves, produce a stream of academic staff necessary to sustain the university enterprise and teach students essential analytical and problem-solving skills. Neglecting university research capacity amounts to foregoing future development possibilities. Governments and universities have to make well-considered and highly strategic choices as to where and how best they invest the very limited resources available to foster research capability.

The University of Dar es Salaam has an obligation to play its role in this. Strengthening and improvement of research activity is necessary to continuously address the key measures of performance - *quality*, *relevance*, internal *efficiency* and *effectiveness*. The UDSM Research Policy aims at addressing these core issues. There are numerous challenges to be addressed. These include:

- **Low level of research funding.** It is estimated that research funding level in Tanzania is about 0.35% of the GDP as opposed to the 3% of

GNP for developed countries. The NEPAD Council of Ministers of Science and Technology set a minimum target of 1% of GDP per annum in 2003. Tanzania is still far from achieving these targets.

- **Inadequate human resource base** (both in quality and quantity) for the development and management of technological change. The critical minimum human resource capacity is still to be attained. It is necessary to dialogue with the Government to provide strategic research scholarship support at postgraduate level to cater for this deficiency.
- **National research support environment and culture** is very weak. Some public authorities tend to view research as 'academic' and too slow in producing results. It is necessary to aim at high and quick impact research projects.

The first edition of the UDSM Research Policy published in 1998 has been in use since then. Several limitations were observed in the course of its application. Some of the key areas that need strengthening included:

- The need for the Research Policy to propose a formal mechanism for solicitation of research funds; (MHEST, TEA, COSTECH; private sources, international sources) necessitating the establishment of a unit responsible for identification of sources and solicitation of funds from these sources;
- Introducing a separate research budget line for all academic units; from departmental level coordinated, presented and administered by the directorate responsible for research;
- Arguing for postgraduate research scholarships aimed at increasing the 'critical mass' of research and development oriented human capital in the country;
- Establishment of a quality assurance system for the University of Dar es Salaam has also to be addressed coupled with rewarding research performance for academic units as well as individuals. This however requires a clear framework for defining and measuring research output as well as rewarding performance for purposes of enhancing productivity; and
- Placing emphasis on fostering research teams culture and mentorship that encourages, prioritises and strengthens collaborative and multi-

disciplinary research within the university and with external institutions. It is also necessary to enhance the research skills and competencies of academic staff through research training programmes.

These are some of the additional key issues that have been addressed in the current Edition of the UDSM Research Policy. The development of the UDSM Research Policy has taken on board other related UDSM policy development efforts especially in the areas of Intellectual Property Rights, Research Ethics and Environmental Impact. The research policy statements have been presented in the following twenty areas:

- *Research Priorities and National Coordination:* The UDSM shall set guidelines with respect to the role of UDSM in defining and implementing the national research agenda in collaboration with other national stakeholders.
- *Research Funding:* Provides a reference frame for sourcing of research funds. The main source of research funds shall still be the Government of Tanzania. The guiding research funding benchmark is 1% of GDP in line with the declaration and commitment of Council of Ministers of Science and Technology in the framework of the New Partnership for Africa's Development (NEPAD) held from 6-7 November 2003 in Johannesburg, South Africa.
- *Research Planning and Administrative Capacity Building:* Sets guiding philosophy in strengthening and facilitating the research process at individual level to institutional level within UDSM.
- *Internal Procedures for Approval, Control and Monitoring of Research Process:* The UDSM shall ensure that staff are well aware of the national research agenda and participate in the process of defining and reviewing the research agenda for their respective academic disciplines and it shall give priority to projects within the main research agenda when approving research funding. Research proposals have to demonstrate that they are within the approved agenda. Further, the UDSM shall put in place operational procedures for the implementation of the research process.
- *Collaborative Research:* UDSM shall promote collaborative research where there are potential benefits to the University. Further, it shall promote and

put in place a mechanism for facilitation of 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.

- *Research Training*: In recognition of the fact that research training represents one of the most significant areas of national investment in research and development, and that research students are a major resource, underpinning much of the leading edge research necessary for meaningful application in national development, the UDSM shall argue for increased government funding of research degree programmes through specific budgetary allocation for scholarships at masters and doctoral degree as well as post-doctoral levels to be conducted at the University of Dar es Salaam. Research training should not be treated as a luxury.
- *Research Quality Assurance*: It is necessary to develop and disseminate research quality guidelines/checklist. And ensure that these are used for application review, performance monitoring and evaluation. Further the UDSM shall institute a peer review system for research performed at the UDSM at interval of not more than five years.
- *Approval of Research Projects*: 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 are subjected to the UDSM approval process before being accepted for funding irrespective of the source of funding and that researchers are to enter into a research contract with UDSM when the project has been approved irrespective of the source of funding.
- *Research Performance and Rewarding*: A transparent mechanism for research performance measurement shall be established. The mechanism shall be applied to evaluate research performance of individuals, academic units and multi-disciplinary research teams on an annual basis and reward of research performance at individual, academic unit and research teams each year shall be effected on the basis of criteria set.
- *Contributions to the Research Administrative Infrastructure*: In order to strengthen the research administrative capacity, research projects shall be required to

contribute at least 8% of the total project research costs to the institutional overheads, which shall be shared at departmental, faculty/institute and University/College level.

- *Sharing of Research Resources:* This is aimed at creating transparency in the allocation and utilization of research resources and where possible creating the possibility of sharing research resources.
- *Staff Remuneration:* Remuneration shall aim at making research as attractive as consultancy as well as retain quality staff through rewarding excellence, the need for research remuneration is recognized. Reward should foster teamwork and collaboration. The implementation of this shall be as provided for in the Human Resources Management (HRM) Policy.
- *Research Support Environment:* In order to enhance research performance, regional and international collaboration (global networking) shall be encouraged and facilitated. Internally, research administration skills shall be strengthened through specific actions.
- *Dissemination of Research Results:* In this respect, UDSM shall ensure that the dissemination of research results is done in the most effective way. In particular, local dissemination of research results shall be encouraged. Further, each faculty/bureau/academic center/institute shall 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. Resources permitting, key stakeholders shall also be invited to these workshops.
- *Research Ethics:* The UDSM shall establish a clear Research Ethics Policy with the aim of promoting awareness of ethical principles and issues in the conduct of research throughout the University. While the UDSM intends to set-up a separate UDSM Research Ethics Committee, it shall be expected that all the research management officials and participatory organs at all levels shall endeavour to ensure that research ethics are adhered to by researchers.
- *Environmental Considerations:* The UDSM has an obligation to ensure that research conducted complies with environmental laws and regulations in

the country. While the UDSM intends to set-up separate guidelines on the same, such guidelines shall not exonerate staff, students or external collaborators. It shall be expected that all the researchers shall management officials and participatory organs at all levels shall endeavour to ensure that environmental laws and regulations are adhered to by researchers.

- *Proprietorship of Research Outputs:* In principle, proprietorship of research results/outputs rests with UDSM. Provisions of the UDSM Intellectual Property Rights shall apply.
- *Disposal/Redeployment of Research Project Resources:* In principle, all equipment purchased within a research project are the property of UDSM, the policies and procedures governing the disposal of University property (obsolete or otherwise) should be applied. However, the unit/researcher that had these resources should be given priority in reallocation of such research resources when the project is completed.
- *Effectiveness of Research:* It is important that UDSM has a feedback mechanism to assess research effectiveness as well as feed into the process of refining the research agenda.
- *Research Culture :* For the society to advance, UDSM shall contribute towards fostering and enhancement of research culture both within and outside the University through training, and promoting research teamwork.
- *Application and Review:* The Research Policy shall apply to all members of staff, graduate and undergraduate students who are involved in research on or off campus of the UDSM. Further, the UDSM Research Policy shall be subject to Review every five years.

The policy statements are to guide the general conduct of research within UDSM. It is necessary for the specific policy intentions to be operationalised by relevant offices within the University. The strategies for the implementation of the policy and the core operational procedures are presented in Chapter 5. The key strategy is the strengthening the directorate responsible for research at the University level. Specific tools for the implementation of the Research Policy are presented in Annexes I- IX. These shall be reviewed regularly to accommodate the operating environment.

It is hoped that the Research Policy will enable the University of Dar es Salaam to meet these broad objectives in order to address its mission both in the short and long run.