JOMO KENYATTA UNIVERSITY
OF
AGRICULTURE AND TECHNOLOGY

Research Policy

June 2017
Our Vision

A University of global excellence in Training, Research and Innovation for development.

Our Mission

To offer accessible quality training, research and innovation in order to produce leaders in the fields of Agriculture, Engineering, Technology, Enterprise Development, Built Environment, Health Sciences, Social Sciences and other Applied Sciences to suit the needs of a dynamic world.

Philosophy

JKUAT values the need for transformational leadership to steer the University towards achieving her vision and mission and contribute towards the social and economic development of the country.

JKUAT shall endeavour to attract, develop, motivate and retain a multi-skilled workforce while nurturing a consultative working environment.

JKUAT shall adopt and utilise ethical standards and best practices in training, research and innovation in order to produce dynamic leaders.

University Motto

Setting trends in Higher Education, Research and Innovation.

University Core Values

Quality
Teamwork
Transparency
Accountability
Professionalism
Innovation
Integrity
Dynamism
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<td>CfP</td>
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<td>DIPUIL</td>
<td>Directorate of Intellectual Property Management and University – Industry Liaison</td>
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<td>DVC (RPE)</td>
<td>Deputy Vice Chancellor, Research Production and Extension Division</td>
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<td>JAGST</td>
<td>Journal of Agriculture, Science and Technology</td>
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<td>JCUAT</td>
<td>Jomo Kenyatta University of Agriculture and Technology</td>
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<td>RPPC</td>
<td>Research Printing and Publications Committee</td>
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<td>ST&amp;I</td>
<td>Science, Technology and Innovation</td>
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<td>Vice Chancellor</td>
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DEFINITION OF TERMS

Research - the creation of new knowledge and/or the use of existing knowledge in a new and creative way so as to generate new or substantially improved concepts, methodologies and understandings. This could include synthesis and analysis of previous research to the extent that it leads to new and creative outcomes.

Researcher - any staff member, person awarded honorary or academic status by the University, student, or person otherwise associated with the University, who conducts research in the course of employment, study or a formal research affiliation with the University.

Principal Investigator - a JKUAT staff member who has primary responsibility for the design, execution and management of a research project. Specifically, and not limiting the foregoing, a PI may include any of the following: Project or Team Leader, Principal or Primary Applicant, Scientific Director, Chair or Nominated Principal Investigator.

Research Funds - all funding received for the purpose of supporting a designated research project. This includes internal and external grants, contract research, research consultancies and collaborative or commercial research ventures.

Research Contract - a legally enforceable agreement which may include conditions setting forth specific terms governing the conduct, direction and scheduling of the tasks to be performed; designating ownership of proprietary rights to the research results; laying out the financial regimen to be followed; and other restrictions required by the research funder.

Research Data - without limiting the generality of the term or precluding an interpretation that may apply in a specific research field - Facts, observations, measurements or experiences on which an argument, theory or test is based. Research Data may be numerical, descriptive or visual. Research data may be raw or analysed, experimental or observational and includes laboratory notebooks, field notebooks, primary research data, questionnaires, audiotapes, videotapes, models, photographs, films, test responses, and any other records that are necessary for the reconstruction and evaluation of the reported results of research.

Equipment - any item of a permanent nature with a life expectancy of at least two years used for an active research project at JKUAT, including research infrastructure such as scientific collections and information databases that has a useful life of more than 1 year. Books, journals, glassware and plastic-ware, and materials, items or components purchased to repair an item of equipment are usually regarded as consumable items.

Monitoring - the systematic collection, analysis and use of information from technical and financial progress reports and interviews of researchers of an on-going research activity to account for the resources used and results obtained in light of objectives formulated in advance and take decisions on the future of the activity.

Evaluation - the objective and systematic analysis of a completed research project to assess relevance, effectiveness, efficiency, impact and sustainability and learn from the implementation process what worked or not and why.

Financial report - a formal record detailing the financial activities and position of a research activity or investigation.
**Technical report** - document that details the procedures adopted, progress or results of a scientific or technical research activity or investigation.

**End of project** - the date identified in a research grant as the end of the project, typically the completion of deliverables for a contract or delivery of a final report for a grant.

**Research Centre** - an academic or administrative unit established to facilitate collaborative research mainly within a faculty or school.

**Research Institute** - a unit created to facilitate collaborative multi-disciplinary research between different faculties/schools and/or multi-university initiatives and to provide research related services to the community.
FOREWORD

Over the years, scientific research has remained a key pillar in both academia and industry, thus impacting heavily on socio-cultural practises and economies around the globe. Research is the main trigger for development in virtually all sectors, be it agriculture, engineering, information technology, medicine and even social sciences. Against this background, and in an attempt to contribute to Kenya’s Vision 2030 goals, Jomo Kenyatta University of Agriculture and Technology has continued investing heavily in research, both materially and in terms of human capital. It is this focus that has seen the institution train, develop and generate important innovations and award-winning researchers and innovators, who continue making remarkable strides in the national and international arenas.

The generation of this second edition of the University’s research policy is anchored on the University’s Strategic Plan (2013-2017) and tailored towards responding to emerging research trends both locally and internationally. The aim of the policy is to guide University staff and stakeholders on the conducting and management of research in the institution. The policy thus provides guidelines spanning from approval and initiation of research projects, to formal closure.

Through the policy, the University seeks to encourage budding scientists to engage in productive research that should in the long run contribute to general improvement of livelihoods, especially at the grassroots level. More importantly, the policy is intended to protect the University’s and individual researchers’ interests in the performance of research activities.

It is our hope that this policy will open further the avenues for scientific work within the University, not only for the benefit of the nation but humanity at large.

Prof. Mabel O. Imbuga, Ph.D, EBS
Vice Chancellor
ACKNOWLEDGEMENTS

The first edition of the Jomo Kenyatta University of Agriculture and Technology’s Research Policy was launched in 2005. Since then, there have been major changes in the performance and management of research within the university, nationally and internationally. For example, only a handful of researches were ongoing in 2005 at JKUAT compared with over 200 research projects (internally and externally funded) ongoing in 2016. The expansion in research projects undertaken has been supported by a growth in the number of Colleges, Faculties and Schools as well as research oriented academic staff. As a result, several scientific themes have emerged indicating specific JKUAT research strengths, supported by a revitalised intellectual property and industrial liaison office.

Nationally, the repeal of the Science and Technology Act of 1977 by the Science, Technology and Innovation Act of 2013 saw the establishment of National Commission on Science, Technology and Innovation (a successor to the National Council for Science and Technology) that views research as playing a key role in generating critical mass of technical and skilled manpower for driving Science and Technology and Innovation in Kenya. On the basis of these, the 2005 research policy was rewritten to meet current challenges and provide guidelines on the research enterprise in JKUAT.

The revised policy has benefitted from contributions of JKUAT staff from the Research Production and Extension Division, including Research Institutes and Centres; Colleges, Faculties and Schools; and, the Research, Printing and Publications Committee of Senate. We wish to acknowledge the support of University Management led by the Vice Chancellor which made the review of this policy possible.

Prof. Esther M. Kahangi, Ph.D, EBS
DEPUTY VICE CHANCELLOR, RPE
1.0 BACKGROUND

1.0.1 Jomo Kenyatta University of Agriculture and Technology (JUAT, ‘the University’) was established by the Jomo Kenyatta University of Agriculture and Technology Act No. 8 of 1994, among other functions, to:
(a) Participate in the discovery, transmission and preservation and enhancement of knowledge and to stimulate the intellectual participation of students and researchers in the economic, technological, agricultural, professional and cultural development of Kenya,
(b) Provide directly or indirectly or in collaboration with other institutions of higher learning, facilities for University education (including agriculture, scientific, cultural, technological, and professional education), and integration of teaching, research and effective application of knowledge and skills to the life, work and welfare of citizens of Kenya,
(c) To play an effective role in the development of agriculture and technology in conjunction with the industry and to provide extension services so as to contribute to the social and economic development of Kenya.

1.0.2 Research aspects of the JUAT Act of 1994 are domiciled in the Research, Production and Extension (RPE) Division, one of the four Divisions in JUAT. The Division was set up when JUAT, then JKUCAT, became a constituent College of Kenyatta University in 1988 under the headship of a Deputy Principal. In 1994 when JUAT attained the charter to operate as a fully-fledged University, the headship of the Division changed to Deputy Vice Chancellor. The Deputy Vice Chancellor, in carrying out the various mandates of the Division, is supported by a Registrar and various Directorates, Departments, Research Institutes and Centres. The office of the Deputy Vice Chancellor (RPE) coordinates the following services:
(a) Research including fundraising and dissemination,
(b) Production and income generating activities,
(c) Extension and technology transfer services including shows and exhibitions, and,
(d) Linkages services including community collaboration services.

1.0.3 The Government repealed the various laws governing Universities and consolidated them under the Universities Act 2012. Provisions of the 2013 JUAT Charter that guide this policy are:
(a) To provide directly or indirectly or in collaboration with other institutions of higher learning, facilities for University education (including agriculture, scientific, cultural, technological, and professional education), and integration of teaching, research and effective application of knowledge and skills to the life, work and welfare of citizens of Kenya,
(b) To advance knowledge and its practical application by research, innovation and other means, and,
(c) To disseminate the outcomes of research by various means, and commercially exploit the results of such research.

1.0.4 In accomplishing this mandate, JUAT sets out this policy to provide guidance on the conduct of research and its dissemination. Other issues driving the need for the research policy are:
(a) University funded research projects cumulatively stand at KES 246m in 2015, with 94 projects having been funded since 2005 up to 2014. Externally funded projects cumulatively stand at KES 1,408,313,102 in 2015. This substantial investment posits the need for improved management in line with international best practice.

(b) Research is the basis of the development of innovative products and technologies that JKUAT has come to be known for. Growing the research portfolio and improved management of research will impact positively on growth of the innovation portfolio of the university.

(c) The requirement by the University that staff publish their research as part of their academic progression has now been reinforced by the Commission for University Education. Guidance is needed on conduct of research as more staff and students carry out research in the University.

1.1 Purpose of this University-Wide Policy
This policy establishes the research environment within which academic staff/researchers and postgraduate research students carry out their research. It also provides an overarching framework for the development, implementation and management of all research at JKUAT.

1.2 Relationship between the Research Policy with the University’s Strategic Plan (2013-2017)
1.2.1 JKUAT’s strategic plan provides overall strategic guidance for this policy. The current strategic objective for research for the plan period is: ‘Undertaking value-added research and innovation for supporting agriculture and technology development’.

1.2.2 Specific strategies to accomplish this as outlined in the plan are:
(a) Undertaking research in fourteen (14) strategic demand driven thematic areas based on the Vision 2030 over the plan period [see appendix 1 for current research themes].
(b) Transforming the current and future research institutes into centers of excellence in line with the fourteen (14) thematic areas.
(c) Disseminating research and innovations results to target users during the annual conferences, exhibitions and biannual publications.
(d) Reviewing the current policy framework to facilitate research and innovation.
(e) Increasing the internal research fund and expanding its utility to cover proposal writing and bidding.
(f) Undertaking vigorous drives to raise funds for research infrastructural development.

1.3 Aims of this Policy
1.3.1 Support and build capacity for research excellence at JKUAT that:
(a) Enhances its capacity to address the research priorities of government, industry, and society at large;
(b) Accelerates the production and dissemination of scholarly outcomes, and strengthens JKUAT’s capacity to compete successfully for grants from Kenya and elsewhere; and,
(c) Increases its ability to supervise graduate master and doctoral candidates at globally accepted standards, and grow the pool of highly qualified human capital for Kenya and internationally.
2.0 POLICY CONTENT AND GUIDELINES

2.1 Requirement to Undertake Research
2.1.1 All academic staff/researchers are expected to conduct research and publish their findings in recognised high impact factor journals (with the exception of findings that have commercial potential for which guidance is provided by JKUAT’s Intellectual Property Policy).
2.1.2 All researchers, after publishing their findings, are expected to publish the corresponding data on the open data platform as guided by the JORD Policy.
2.1.3 The requirement to undertake research is a career expectation and shall be balanced with the other obligations of academic staff including teaching and administrative responsibilities.
2.1.4 Nothing in this policy is to be construed so as to prevent Heads of Colleges, Faculties, Schools, or Departments from allocating teaching and other responsibilities to academic staff.
2.1.5 The Research Directorate, the DVC (RPE), the VC and the University Council will seek research funds in support of research in JKUAT. All academic staff should, in support of this, also identify opportunities for fund raising as they arise and share the same with the Research Directorate and other academic staff.
2.1.6 All funds managed by the Research Production and Extension Division for research purposes are University funds. Researchers shall inform the DVC (RPE) and the Director Research of all funds received.

2.2 Research Planning
2.2.1 Each Faculty/School and its constituent academic unit(s) shall develop and implement its own research plan. Each academic department shall have a research committee. The research committee will plan and coordinate research at departmental level and communicate upwards through faculty/schools to the RPE division to facilitate proper management of research across JKUAT.
2.2.2 Identification and distribution of calls for proposals from external funders shall be done by the Research Directorate. However, academic staffs are encouraged to source for potential opportunities and also join networks (mailing lists, etc.) which occasionally provide such calls. All staff is encouraged to share calls with others within the institution.
2.2.3 The Research Directorate shall endeavour to develop strong relationships with partners based in Kenya and elsewhere with an aim of growing the University’s research portfolio.

2.3 Research Management
2.3.1 Policy and advice on research matters is coordinated through the Research, Printing and Publications Committee (RPPC) of the Senate and implemented by the Deputy Vice Chancellor, Research Production and Extension Division (DVC RPE) through the Research Directorate.
2.3.2 RPPC, chaired by the DVC RPE, is the University’s research management body. It advises the Senate, and ultimately the University Council, on research strategies to be pursued. It approves research proposals for funding, develops policy and reviews progress in these areas.
2.3.3 The Deputy Vice Chancellor Research, Production and Extension Division (DVC RPE) reporting directly to the Vice Chancellor of JKUAT, manages the University's research enterprise and chairs the RPPC. The Office of the DVC RPE establishes and
administers the policies governing the conduct of research at the University and oversees the management of its research programs. The DVC (RPE) supports efforts to secure external funding, promotes interdisciplinary research and oversees the University’s research fund.

2.3.4 Some administrative aspects of research are also handled by other University offices as detailed below:

2.3.4.1 **DIPUIL**: The Directorate of Intellectual Property and University-Industry Liaison (DIPUIL) handles all intellectual property (IP) related issues emerging from researcher’s work with an aim of managing IP for the benefit of JKUAT.

2.3.4.2 **University Library**: The University library is the repository for outcomes of research undertaken in JKUAT. All publications from research undertaken by staff must be deposited with the University Library in concordance with the JKUAT Digital Repository Policy.

2.3.4.3 **ICT Centre of Excellence and Open Data (iCEOD)**: iCEOD is the Centre hosting the University’s open data platform where all data used to produce publications must be published in accordance with the JORD Policy.

2.4 **Resources in Support of Research**

2.4.1 **University Research Fund**

The general principle governing the allocation of all research funding in the University is that it is an investment intended to maximise the range of outcomes that the University gets from staff and student research. The RPPC allocates funds from JKUAT’s internal research fund (JKUAT-URF).

2.4.2 **Kenya Government Grants**

2.4.2.1 **National Council for Science, Technology and Innovation**

The National Council for Science, Technology and Innovation (NACOSTI) administers the Kenya Government Science, Technology and Innovation (ST&I) Grant. The grant supports scientific research and Innovations for national development.

2.4.2.1 **Kenya National Innovation Agency**

The Kenya National Innovation Agency (KENIA) manages the national innovation system for commercialization of innovations through establishment of effective linkages between academia, research, government, industry and society and oversees the efficient management of national intellectual assets.

2.4.2.1 **External Grants**

Research funding from external sources provide a major source of research income to the University. All staffs are encouraged to compete for external research funding as they arise.
2.5 Administration of Research Grants

All research grants shall be administered by the office of the DVC (RPE).

2.5.1 Internal Research Fund Provisions

2.5.1.1 All internally funded projects are owned by the University. JKUAT staff shall compete for a grant from University research funds based on a call for proposals issued each year by the Director Research in consultation with the DVC (RPE).

2.5.1.2 Proposals shall be reviewed in line with guidelines issued by the Research Directorate. Proposals not meeting these guidelines or where PIs shall be found to have interfered with the review process shall be disqualified.

2.5.1.3 Award of funding is subject to decisions by RPPC based on reviewer’s comments, suitability of the proposals with University and National needs and availability of funds.

2.5.1.4 Successful and unsuccessful applicants shall be informed in writing. Successful PIs shall sign a contractual agreement form after making all requested corrections to their proposals.

2.5.1.5 Maximum funding is KES 4.5m for three years (KES 1.5m per year) subject to regular monitoring and evaluation reviews, and timely submission of progress reports (technical and financial). Stipends for postgraduate students in internally funded research projects shall be paid at approved JKUAT rates as guided by the RPPC. Further guidance is provided in appendix two (2) of this policy.

2.5.2 Externally Funded Research Projects

2.5.2.1 All staff are encouraged to apply for externally funded research projects and inform the DVC (RPE) and Director Research when they submit their applications.

2.5.2.2 All externally funded projects are owned by the University. PIs that have won research grants from external sources shall inform the DVC (RPE). A file shall be opened that will have a copy of the proposal, research contract and any other document relevant to the project.

2.5.2.3 All PIs in externally funded projects shall complete a Key Performance Indicator form to document the outputs of their researches.

2.5.2.4 Disbursement of funds will follow the schedule agreed between the PI and funding organization. It is imperative that the PI provide this information to the DVC (RPE).

2.5.2.5 It is expected that continued approval of funding access shall depend on submission of financial and technical reports, as agreed with the funding agency, and copied to the DVC (RPE) and Director Research.

2.6 Monitoring and Evaluation of Research Projects

All research projects shall be monitored and evaluated once annually by the M&E Committee. The Committee comprises of Research Directorate staff and shall include other subject matter experts from University staff depending on need.
2.6.1 Monitoring and Evaluation of Internally Funded Projects
2.6.1.1 The PI is required to complete an M&E form two weeks prior to commencement of the M&E exercise.
2.6.1.2 The M&E Committee shall track progress of the project through review of the research logbook, Gantt chart, and report on key performance indicators. From the second year, the Committee shall also review projects for any intellectual property related issues.
2.6.1.3 M&E Committee shall make random site visits to monitor on-going researches.
2.6.1.4 Continuation of funding for an ongoing project will be dependent on M&E and progress reports.

2.6.2 Monitoring and Evaluation of Externally Funded Projects
2.6.2.1 It is expected that externally funded projects will employ an M&E framework that will review progress. The PI shall periodically as agreed with the funding agency, submit technical and financial reports and copy the same to the Director Research.
2.6.2.2 Where such a framework does not exist, the PI is required to adhere to the M&E guidelines for internally funded projects as outlined in section 2.6.1. The Research Directorate will study the contract documents to assist the funding agency have the terms of the project implemented.

2.6.3 Project Continuation
2.6.3.1 It is expected that PI’s are committed to completing their projects on time. PI’s who do not utilise funds in the current fiscal year funding shall not be eligible for funding in the subsequent year.
2.6.3.2 Project continuation is dependent on the following:
   (a) Submission of progress and M&E reports;
   (b) Availability of PI during M&E review;
   (c) Handing over of projects in cases where the PI leaves JKUAT employment, or is absent from the research site for a period of three (3) months;
   (d) Proper management of funds;
   (e) Timely project implementation;
   (f) Non-contravention of regulations guiding conduct of research.
2.6.3.3 A PI who abandons their research project is liable to be surcharged for funds disbursed. A warning letter shall be sent to the PI within three (3) months after the Director Research notices non-compliance to show cause for nonconformity. If the PI does not respond within one (1) month after dispatch of the warning letter to the agreed address, project funding shall be stopped and where necessary, the process of surcharging the PI for funds expended shall be instituted.
2.6.3.4 The DVC (RPE) with advice of the M&E Committee shall terminate research projects that encounter serious technical, scientific or milestone failure such that there is no reasonable prospect of success in achieving overall objective.

2.6.3 End of Project
2.6.3.1 A PI shall be informed of ‘end of project’ approximately 90 days prior to a project's expected end date by the Research Directorate.
2.6.3.2 Close out of a project shall be done on submission of final project report (technical and financial), research logbook, Key Performance Indicators and an account of their expenditure from the Finance Department.
2.6.3.3 The M&E team shall then undertake a thorough review of achievement of both technical (project objectives and key performance indicators) and financial aspects of the research.

2.6.3.4 PIs are expected to communicate their research findings to the University staff and relevant stakeholders through a seminar/workshop within three (3) months of completion of the project. The Research Directorate shall organise such seminars/workshops at the advice of the PI.

3.0 MANAGEMENT OF RESEARCH FUNDS

3.1 Grants Management Office

3.1.1 The University acknowledges that research funds represent a large investment of public and private funding and must be managed in line with public expectations of good governance, transparency, corporate social responsibility and the efficient and effective use of funds.

3.1.2 The University is required to provide the infrastructure to administer research funds. International best practice is that all research funds shall be managed by the DVC (RPE) through a Grants Office in the RPE Division.

3.1.3 Research funds shall be kept in a separate account from the University’s general account, with the DVC (RPE) and other relevant officers being signatories to the account.

3.1.4 The DVC Finance shall assist the DVC RPE in managing these funds by seconding staff to the DVC (RPE) to ensure that JKUAT’s and funder’s regulations are followed. The seconded finance officers shall:

(a) establish separate project account(s), for each new research agreement within the finance system,
(b) make project reports available detailing all financial transactions and summarising the financial status of individual research project,
(c) prepare invoices to funding agencies in accordance with funding agreements,
(d) prepare financial reports for funding agencies and other funding partners as required under funding agreements, and,
(e) Co-ordinate independent audits of research funds as required under funding agreements.

3.2 Grant Funding Shared between Institutions

3.2.1 Where JKUAT is administering a grant shared between several institutions, an agreement to comply with JKUAT and the funding body conditions, including the requirement to provide a financial expenditure of the funds so transferred at the end of the funding year shall first be obtained prior to transfer of funds.

3.2.2 Where JKUAT is a participating institution, but not the administering institution, a contract must be entered into which defines the University’s involvement in the research project, details of the grant (investigators, title, funding source) and the amount of funding to be transferred to the University.
3.3 Inappropriate Use of Research Funding
3.3.1 Any researcher utilising research funds inappropriately is liable for disciplinary action by the University. Staff with information relating to improper use of fund are encouraged to report to the University relevant officers for further action.

4.0 MANAGEMENT OF RESEARCH EQUIPMENT

4.1 Acquisition of Equipment
4.1.1 PIs are responsible for identifying the needed research equipment, determining if such equipment is available on campus, and (if unavailable) initiating purchase of new equipment. JKUAT Procurement Policy and related procedures shall be followed when purchasing equipment.

4.2 Ownership of Research Equipment
4.2.1 Equipment purchased using JKUAT funds is the property of the University.
4.2.2 Ownership of equipment purchased using external research funds shall be determined by the funding agreement governing the research project. Where the funding agreement does not specify ownership of equipment purchased, the equipment shall be JKUAT’s property.
4.2.3 All research equipment shall be tagged and listed in the University’s asset inventory. Following termination of a sponsored research program, property for which ownership has been granted to the University should be inventoried as belonging to the academic Department/Institute/Centre concerned.

4.3 Use of Research Equipment
4.3.1 The PI shall use the equipment in the project or program for which it was acquired as long as needed, whether or not the project or program continues to be supported by a sponsor or JKUAT and shall not encumber the property without approval of the sponsor or JKUAT. When no longer needed for the original project or program, the PI shall continue to use the equipment for his/her research activities.
4.3.2 The PI is responsible for overseeing the day-to-day care, maintenance, supervision, housing and for taking other reasonable measures to protect it during its useful life. For equipment housed in an institute/centre or department, the head of the unit will provide oversee its use and maintenance.
4.3.3 The PI shall share equipment with other JKUAT researchers, projects or programs if such use will not interfere with the work on the project for which the property was originally acquired.
4.3.4 PIs or directors/managers where applicable, are responsible for communicating with the University Finance Officer to confirm value of the equipment and ensure that the property has appropriate insurance coverage.
4.3.5 The department/centre chairs/directors (or their designates) are responsible for reporting significant changes in the location, condition, transfer, and disposition of research equipment.

4.4 Transfer or Disposal of Equipment
4.4.1 When a PI with an ongoing research project resigns from (or terminates) JKUAT employment, the PI shall submit a written progress report outlining the status of the research project to the DVC RPE and Director Research. Management of the research
project including equipment and remaining funds shall be transferred to co-investigators in JKUAT to finalise the remaining work.

4.4.2 Equipment that has passed its useful life or is damaged beyond reasonable cost of repair shall be disposed of in accordance with University asset disposal procedures. Proceeds from disposal of equipment, net of disposal costs, will remain with the home department of the original research project and will be used for research activities.

5.0 RESEARCH CONTRACTS

5.1 Internal Contracts
5.1.1 A research contractual agreement will be signed between the PI and the DVC (RPE) or Director Research upon approval by RPPC. The contract sets forth terms of the research engagement and includes the following:
(a) Logical framework,
(b) Gantt chart,
(c) Key performance indicators expected from the research project, and,
(d) Proposed capacity development plans of either master or doctoral students.
5.1.2 The PI must adhere to University rules and regulations governing utilization of finances while undertaking their work.
5.1.3 Ownership of proprietary rights to the research results remain with the University and the PI. Specific guidance on determination of rights is outlined in the Intellectual Property Policy.

5.2 External Contracts
5.2.1 The Vice Chancellor, or a person designated by the VC, is the signatory for all research grant applications for external funding. Individual University employees are not authorized to sign on behalf of the University or bind the University in any manner.
5.2.2 The DVC (RPE) in liaison with the University legal officer is responsible for all aspects of research contract administration including the execution of agreements.
5.2.3 To defray expenses incurred in managing external grants, JKUAT shall retain 10% (9.5% to Finance Department and 0.5% to Research Directorate for M&E) or percentage negotiated from time to time.

5.3 Content of External Research Contracts
5.3.1 PIs are requested to ensure that each research contract provides the following details;
(a) full contact details for all parties to the contract,
(b) statements on the ownership of intellectual property and publication rights,
(c) statement relating to thesis submission (especially if a student is involved),
(d) a statement of confidentiality,
(e) a statement of governing law and conflict resolution mechanisms,
(f) a statement allowing either party to withdraw from the contract under appropriate circumstances,
(g) duration of the research
(h) sharing of facilities and research equipment
(i) funding and benefit sharing
(j) a statement on liability, and,
(k) The date for the submission of the final report.
5.3.2 Where some or all of these details are not captured in the research contract, the PI is expected to negotiate with the funding agency for their inclusion.
5.4 Collaborative Agreements

5.4.1 Where the University is involved in any collaborative research project, collaborating researchers must consider and make arrangements to manage the following issues prior to the commencement of the research project:

(a) Research roles and responsibilities (e.g. the goals of the project, the role each partner will play, how changes in the research design will be made etc.),
(b) Resource-sharing,
(c) How research data will be collected, stored and shared,
(d) Authorship, including the process and criteria by which authorship and credit will be assigned,
(e) Financial management,
(f) How intellectual property rights and ownership issues will be addressed,
(g) Training and supervision,
(h) A statement of confidentiality,
(i) A statement of governing law and conflict resolution mechanisms,
(j) Sharing commercial returns,
(k) Ethics approval and safety clearance,
(l) Disclosure of conflicts of interest,
(m) Compliance with all funder and regulatory matters relevant to the project, and,
(n) Estimating an initial time frame for the collaboration

6.0 RESEARCH INSTITUTES AND CENTRES

6.1 Research Institutes and Centres are established to help position and promote the JKUAT’s areas of research excellence and build the University’s research reputation. They also serve as vehicles for engaging with other research institutions and industry and facilitate interdisciplinary and multidisciplinary relationships.

6.2 The criteria for establishment of Institutes and Centres are as follows:

(a) consistency with the strategic interests of the University,
(b) central to the University’s Research Strategy,
(c) aligned to the priorities of research funders and competitive with other bidders for that funding,
(d) high quality, and
(e) Substantial (in both finance and research).

6.3 Institutes and centres are approved by the University Senate after recommendation of the DVC (RPE). The title “centre” or “institute” is only to be used after approval. Research groupings not so approved should use other general identifiers such as “project” or “unit”.

6.4 A defining feature of institutes and centres is that they raise funds for their areas of interest. Directors appointed by the VC to head research institutes and centres are expected to be individuals with a track record of fundraising.

6.5 Research Institutes and Centres shall remain non-degree granting units of JKUAT to focus their energies on research or offering courses for the purpose of extension and technology transfer or income generation. Postgraduate students and staff may apply to undertake their research work at these facilities where their work requires specialist equipment and/or faculty based at the Institutes or Centres. External staff and students shall pay a bench fee for conducting their research at the University’s Institutes or Centres.
6.6 Directors of research institutes and centres shall, at the end of each financial year, submit an annual report to the DVC (RPE) detailing activities undertaken, funds attracted, conferences attended, publications (copies of which have to be sent to the JKUAT institutional repository) and, masters and doctoral students supervised.

7.0 RESEARCH DISSEMINATION

7.1 The PI has the discretion to publish results of research undertaken at JKUAT. This expectation is subject to considerations that justify either restricted or delayed publication, including the need to observe any contractual, confidentiality or privacy obligations entered into in respect to intellectual property, and the need to protect the value of potentially commercializable results as directed by the University’s Intellectual Property Policy.

7.2 Publications arising from work done in the University must be submitted to JKUAT’s institutional repository. Specific guidance on this is outlined in JKUAT’s Digital Repository Policy.

7.3 Staffs are encouraged to publish in recognised high impact factor journals that are Open Access compliant where possible to ensure JKUAT maximises on recognition of scholarly work. Staffs are encouraged to register and create a public profile linked to JKUAT such as the Google scholar platform, among others.

7.4 All researchers are encouraged to publish at least one paper in JAGST or JSRE among other University owned journals.

7.5 An international scientific conference funded by the University and other donors shall be organised annually for the purpose of communicating and sharing research findings to internal and external audiences. Papers presented during the conference shall be published in a JKUAT scientific conference proceedings book and selected papers shall be published in a special JAGST issue.

8.0 RESPONSIBLE CONDUCT OF RESEARCH

8.1 This policy promotes the conduct of ethical research and supports integrity in research. Academic staff and students are required to carry out their research in compliance with all the University’s statutes and any other obligations as outlined by the National Council for Science, Technology and Innovation (NACOSTI).

8.2 JKUAT affirms the requirement that all research involving human participants, use of animals for research or teaching, or involving use of bio-hazardous material must undergo relevant review based on University and NACOSTI guidelines.

8.3 Reference made to international guidelines on research on humans and animals, and safe procedures on use of bio-hazardous material in research that have been domesticated by NACOSTI (human and animal research) and the National Biosafety Authority (bio-hazardous material in research). The University shall have its own research and ethics committee on humans, a separate committee on use of animals in research and another on biosafety (under the National Biosafety Authority) in research. These bodies will operate on delegated responsibility from NACOSTI. Policies guiding these two committees are:

(a) Research Ethics Guidelines for Research Involving Humans;
(b) Guidelines on Use of Animals in Research and Teaching, and
(c) Biosafety policy.

8.4 Other guidelines on the management of research include:

(a) Authorship Practices,
(b) Conflict of Interest in Research,
(c) Research Misconduct, and,
(d) Plagiarism.

8.5 Researches that do not involve human participants, animal use or bio-hazardous material must also comply with other ethical standards, especially those that govern the particular discipline or field, in addition to the other JKUAT research policies listed above.

9.0 RESEARCH MERIT AWARD SCHEME

9.1 Pursuant to its vision to become a University of global excellence in research and innovation, and then as step to motivate JKUAT staff participation in high calibre research and innovation, a scheme to award high performing researchers shall be formulated titled: ‘JKUAT CHANCELLOR RESEARCH MERIT AWARD’.

9.2 The awards shall cover the following five categories: -
   (a) Award for the Most Leveraged Research Funds,
   (b) Award for the Most Visible Impact on Improved Community Livelihood,
   (c) Award for the Most Tangible Influence on Change in Public Policy,
   (d) Award for the Most Notable Contribution to the Field of Study, and,
   (e) Award for the Most Demonstrable Potential for Commercialization.

9.3 All researchers shall be eligible for the Research Merit Award. The awards shall be in the form of trophy, certificate and cash. That trophy shall be the property of the University and housed in the department of the winning researcher until the next award ceremony. The proposed cash award is KES 100,000/= per award category.

9.4 The evaluation criteria and guidelines for each category are provided in Appendix III.

10.0 GOVERNING LAWS AND REGULATIONS

10.1 This policy shall be interpreted in a manner consistent with other University policies/regulations and all applicable Kenyan Laws.

11.0 IMPLEMENTATION

11.1 This policy shall become effective from the date of approval by the University Council.

12.0 REVIEW OF POLICY

12.1 This policy shall be reviewed/amended every 5 years in tandem with emerging global trends. However, earlier reviews/amendments to the policy may be done on a needs basis as approved by RPPC.
APPENDICES

Appendix I: Thematic Research Areas

<table>
<thead>
<tr>
<th>Theme</th>
<th>Sub-Themes (includes, but not limited to)</th>
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| 1. Agricultural Sciences and Bio-Systems Engineering for Food Security and Agribusiness Development | • Crop and animal improvement  
• Forestry / agro-forestry, fisheries  
• Pest and disease control  
• Harvest and post-harvest technologies  
• Food processing and value addition  
• Storage, food safety and security  
• Bio safety and risk assessment  
• Animal feeds  
• Germplasm conservation and Utilization |
| 2. Engineering technologies and industrial development               | • Manufacturing  
• Industrial systems  
• Mechanical  
• Mechatronics  
• Geomatics / geospatial  
• Electrical/ electronics, Telecommunications  
• Materials  
• Civil engineering  
• Laser technology |
| 3. Human and Animal Health                                            | • Emerging and re-emerging diseases  
• Health and nutrition  
• HIV/AIDS, malaria and other tropical diseases  
• Public health  
• Bioinformatics  
• Animal health  
• Vaccines |
| 4. Energy, climate change and environmental sciences                 | • Renewable energy  
• Green technology  
• Power systems  
• Biodiversity monitoring, conservation and Utilization  
• Land use  
• Natural Resources  
• Climate change |
| 5. Mathematics, Basic and Applied Sciences for Advancement of Research and Industrialization | • Pure mathematics  
• Applied mathematics  
• Statistics,  
• Actuarial sciences  
• Physical sciences  
• Biological sciences |
| 6. Water and Sanitation                                               | • Water resource planning, development and management  
• Irrigation technology  
• Waste water/sewage management  
• Water safety |
| 7. Information Communication Technology for Development              | • Computer software development  
• Hardware engineering |
| 8. | Built Environment and Infrastructure for Industrialization and Sustainable Development | • Telecommunications  
• Virtual learning and networking  
• Urban, environmental and safety issues  
• Physical planning in rural and urban areas  
• Appropriate building technologies  
• Emerging design themes,  
• Green building technology,  
• Materials and processes,  
• Infrastructure and services,  
• Housing and hazard management Environmental behaviour  
• Post occupancy evaluation |
|---|---|---|
| 9. | Policy, Governance, Law, Ethics, Entrepreneurship, Cultural and Social Economic Development | • Social, micro and macro-economic policy  
• Ethics  
• Trade & development  
• Leadership & governance  
• Wealth creation,  
• Gender  
• Intellectual property  
• Culture  
• Entrepreneurship  
• Policy on technology transfer  
• Security, peace building  
• Conflict management  
• Disaster management  
• Poverty eradication |
| 10 | Natural products | • Alternative medicine  
• Bio-harvesting of secondary metabolites  
• Cosmetics |
| 11 | Nanotechnology | • Health  
• Agriculture  
• Engineering  
• ICT  
• Laser technology |
| 12 | Biotechnology | • Agriculture, food processing  
• Genetic engineering  
• Industrial processing  
• Bio-informatics  
• Environment  
• Bio-chemicals  
• Bio-remediation and Bio-mining  
• Bio-polymers  
• Seed technology |
| 13 | Mining and Petroleum | --- |
| 14 | Blue Economy | --- |
Appendix II: Implementation Procedures for Internally Funded Projects

Request for Proposals
The Director Research in consultation with the DVC (RPE) shall release a Call for Proposals (CfP) which provides necessary details to prepare a successful bid each year, inviting JKUAT staff to compete for a grant from its internal University research funds (JKUAT-URF). A special call for proposals focusing on an important JKUAT or national concern may also be issued as necessary. It is mandatory that all researchers funded by the JKUAT-URF support masters or PhD students in their research to help inculcate a culture of research among our postgraduate students and also encourage them to take up research as a career. The Research Directorate shall endeavour to meet the Government of Kenya’s minimum requirement on gender mainstreaming (30% of all funds to be accessed by women, youth and persons living with disabilities).

Review of Proposals
The Research Directorate shall summarise and establish suitability of submitted proposals in line with the guidelines. Each proposal that passes the preview stage shall be blind assigned to two (2) knowledgeable and specialized peer-reviewers, one internal and the other external to JKUAT. Each reviewer shall score the proposal according to set review and rating criteria and give a detailed critique of the proposal. A proposal shall be considered for funding by RPPC if, among other criteria, it scores a minimum of 55% and above of the marks specified in a score sheet.

Disqualification of Research Proposals
PIs with on-going University funded research projects shall not be considered for new internally funded research projects until completion of their researches. They can, however, collaborate with other JKUAT researchers but not as the principal investigators. All PI’s must disclose whether the submitted project has been funded elsewhere failure to which the research will be terminated and the PI surcharged for the funds disbursed. If a PI shall be found to have interfered with the peer review process, the proposal shall be disqualified. Incomplete proposals shall not be considered for funding.

Award of Funding
The Research Directorate shall compile a summary of reviewers’ comments to aid the RPPC in making a decision regarding funding of each research proposal. Funding of the proposals will be subject to availability of funds and suitability of the research proposals with current University and National research needs.

Disbursement of Research Funds
Successful applicants shall be informed in writing. Any issues or concerns raised by the RPPC shall be addressed first prior to signing a contractual agreement that will allow disbursement of funds to the PI. The applicants that are not successful shall also be informed in writing including reasons for rejection and shall be encouraged to submit in the next call. The project shall be deemed to have commenced once the PI signs the research funding contract and collects research logbooks to record their progress throughout the research.

The funding ceiling currently capped at KES 4.5m for a three-year period, with the maximum spending per year being not exceeding KES 1.5m and will be enforced through regular monitoring and evaluation reviews. Exceptional cases can be considered where the PI is purchasing equipment or supplies exceeding KES 1.5m for use in their project. Travel and
accommodation costs shall not exceed one third (1/3) of the total project costs. Stipends for postgraduate students in internally funded research projects shall be paid at approved JKUAT rates.

**Project Funding**
Funding will be dependent on timely submission of progress reports (technical and financial) every 6 months and M&E Committee recommendations. The M&E Committee shall consider requests for additional funding and extension of funding period in exceptional cases. PIs are encouraged to leverage the resources availed to them through access to any external funds where possible.

Utilization of funds by PI and collaborators shall commence within 6 months of the date of notification of award. If the PI, for whatever reasons, is unable to access the funding or commence research work, the PI is required to inform the Director Research in writing. Decision on continuation of a project or extension of its term shall be made by the DVC RPE following recommendations of the M&E team.
Appendix III: Proposed Criteria for Merit Award of Outstanding Researchers

A. Eligibility Requirements
   1. Nominees must be faculty members of the University.
   2. The nominees must have been at the University for at least two years.
   3. Those who might have left the University in the last two years are also eligible.
   4. Previous recipients of the award within the past 5 years are ineligible.
   5. Individuals should not be nominated for two awards (if awards are in two or more categories) simultaneously.

B. Criteria
Guidelines for evaluation of the merit award will include:
   1. Impact of the research findings to:
      (a) The researchers field of study (research work answers a question in the particular field).
      (b) Other areas e.g. improving livelihoods among the poor or a change in public policy.
      (c) Industry (extent of commercialization or upscaling).
      (d) World development.
   2. Financial prudence and ethical conduct in usage of the research funds disbursed.
   3. Timeliness (as per the work plan) conducting of research / production of outputs on indicated timeframes.
   4. Evidence of the researcher in leveraging funds to attain greater impact of research results and outputs.
   5. Contribution to enhancing University’s research capabilities (work done in promoting the university as a research niche).
   6. Research quality as evidenced by partnerships established internally and externally and by the formation of interdisciplinary teams.
   7. Dissemination as evidenced by publications, participation in conferences, symposia and or workshops either at the local, regional, national or international level.
   8. Service in professional community through work such as participation in the organizing conferences, symposia and or workshops either at the local, regional, national or international level.
   9. Awards of national recognition received previously.
      ❖ Researchers will be required to register voluntarily for award consideration.
      ❖ A point based system will be used by a panel to determine the excellence of the research.

C. Award Categories
   (a) Most leveraged research (leveraging on the funding).
   (b) Potential/ extent for commercialization.
   (c) Most visible impact on community livelihoods and industry.
   (d) Most tangible influence on public policy change.
   (e) Most notable contribution of knowledge to the field of study.

D. Forms of Recognition
   (a) Monetary
   (b) Certificates
   (c) Both monetary and certificate
   (d) Trophies
   (e) Holiday package
   (f) Vouchers (gift, cash)