

**SOKOINE UNIVERSITY OF AGRICULTURE**



**Directorate of Postgraduate Studies, Research,  
Technology Transfer and Consultancy**

# **CODE OF CONDUCT FOR RESEARCH ETHICS**



**Edited by:**  
Prof. Eron D. Karimuribo  
Prof. Japhet J. Kashaigili

**JULY 2023**

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Code of Conduct for Research Ethics  
DPRTC-SUA  
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## **FOREWORD**

Sokoine University of Agriculture (SUA) is the leading University in Tanzania in terms of research in Agriculture and allied sciences. The achievements are partly contributed by continuous and tireless efforts made by SUA community to promote the highest standards of scientific excellence when conducting and publishing their research. To sustain these achievements, it is necessary to continue upholding ethics in research and scholarly publications which are the pillars of SUA research integrity. By maintaining research integrity, SUA will not only contribute to Tanzania national development by providing high quality and reliable research evidences to inform national policies but also will support technological innovations required for an effective implementation of the Tanzania's development vision 2025.

To underscore the need for credible research results, SUA developed a number of documents as part of research integrity framework to guide researchers. Among those documents includes the SUA Research Policy and Strategies (2019) and the SUA Research Regulations and Guidelines (2019). These documents support SUA researchers, students and; strategic collaborators and funders during research proposal writing and research project administration.

SUA developed Code of Conduct for Research Ethics in 2012 to support ethical adherence during research undertakings. Since 2012 when SUA code of conduct became operational, there have been a number of new developments including revision of SUA Corporate Strategic Plans (CSPs), restructuring of the administrative structures of the University, revision of research regulations and guidelines, establishment of antiplagiarism policy, development of the national research integrity framework and other documents supporting research governance. The developments have made it necessary to revise the existing code of conduct in research in order to maintain its relevance based on the new needs. This is the first revision since the code was launched in 2012 and is intended to facilitate smooth implementation of SUA's CSP in the research areas, and guide researchers to identify relevant ethical

issues that need to be taken into account when planning, conducting and publishing their research across research disciplines. SUA will continue to recognize her responsibilities towards researchers and communities relying on SUA research results to solve the current and emerging challenges in the society; and thus will continue to provide the needed guidance for researchers in collaboration with researchers themselves and other relevant national and international stakeholders.

I hope that, researchers conducting research at SUA or in collaboration with SUA will find this document to be useful throughout their research and other related scholarly activities.

Professor Raphael T. Chibunda  
**Vice Chancellor**

## EXECUTIVE SUMMARY

Along with teaching, outreach, and consulting services, the primary missions of the Sokoine University of Agriculture (SUA) include research. The envisioned mandate of SUA in research was first put forward by the first Chancellor Mwalimu J.K. Nyerere who directed that *“The University should endeavour to answer the needs and solve the problems of Tanzania’s agriculture and rural life, manage natural resources on a sustainable manner and to contribute to improved production and therefore improving living standards of the people”*.

In order to realize the above vision, it is inevitable for SUA to produce high quality and reliable research outputs. The University has taken an initiative to revise the current code of conduct in research developed in 2012. The revised code takes into account all the necessary steps that are essential for SUA to remain the leading source of credible research-based solutions. Specifically, the document aims at guiding researchers and reviewers to critically evaluate all proposed research and judge whether the respective research will have social or clinical value to justify exposing participants to the risk and burden of research. This means that research should address problems of importance to society, generate knowledge used to solve real-world problems through new technologies and innovative methods.

Furthermore, researchers should ensure that researches are designed in a way that will answer research questions using minimal resources including minimal number of research subjects, ensure a fair selection of research subjects, and show evidences of a favourable risk benefit ratio, and empower participants with sufficient information on the proposed research to facilitate an informed consent.

Therefore, the revised code of research conduct:

- i. Fosters a culture of responsible research management and oversight among researchers;
- ii. Promotes awareness and responsible conduct of research among

- researchers;
- iii. Promotes timely mechanisms of reporting, recording and handling research misconduct and ethics;
- iv. Protects human participants and related human subjects (such as relatives of deceased persons whose archived and historical materials are used) during research;
- v. Ensures that research is done in a manner which serves the interests of people, groups or society;
- vi. Examines research projects and activities for their ethical standards, checking for things like risk management, safeguarding of confidentiality and the procedure of informed consent; and protects animal subjects from abuse during research and prevent unnecessary use of animals in research;
- vii. Builds a culture of self-policing among researchers when planning or conducting research to protect animals from being subjected to painful experimental procedures or unnatural environments without regards to the welfare of the animals, and their intrinsic physiological needs;
- viii. Promotes best publication practices among researchers; and
- ix. Encourages SUA hosted journal to adhere to the best practices of journal publishing and participation in reputable indexing services.

Although this code provides a roadmap for promotion of research excellence, it remains within the responsibilities of researchers to fulfil their obligations. Researchers should be guided by a profound conviction of the value and dignity of the promotion of knowledge and should recognize the particular responsibilities imposed on them by this code of research ethics.

The primary obligations of researchers across all disciplines should be to pursue and present true information about their research, exercise critical self-discipline and judgment in their decisions regarding the conduct of research, the use of generated research data, expansion and dissemination of knowledge.

In doing so, Tanzania will fulfil international conventions that promote human dignity, animal welfare, conservation of biological diversity, sustainable use of resources, fair and equitable sharing of benefits arising from the use of such resources, and respect for the rights of indigenous and local communities.

Prof. E.D. Karimuribo  
**Director,**  
**The Directorate of Postgraduate Studies, Research,**  
**Technology Transfer and Consultancy (DPRTC)**



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## **ABBREVIATIONS AND ACRONYMS**

CBD	Convention on Biological Diversity
CIOMS	Council for International Organizations of Medical Sciences
DNA	Deoxyribonucleic acid
DPRTC	Directorate of Postgraduate Studies, Research, Technology Transfer and Consultancy
GAP	Good Agricultural Practice
GMO	Genetically Modified Organism
IAEA	International Atomic Energy Agency
IP	Intellectual Property
IPPC	International Plant Protection Convention
IPR	Intellectual Property Rights
IPRI	Tropical Pesticides Research Institute
ITPGRFA	International Treaty on Plant Genetic Resources for Food and Agriculture
LGA	Local Government Authority
LMO	Living Modified Organism
NEMC	National Environment Management Council
NHRERC	National Health Research Ethics Review Committee
NIMR	National Institute for Medical Research
PIC	Rotterdam Convention on Prior Information Consent
SNAL	Sokoine National Agricultural Library
SOP SPRTC	Standard operating procedure Senate Postgraduate Studies, Research, Technological Transfer and Consultancy
SUA	Sokoine University of Agriculture
SUAREC	Sokoine University of Agriculture, Research Ethics Evaluation Committee
UNCLOS	United Nations Convention on the Law of the Sea
UNFCCC	United Nations Framework Convention on Climate Change
WHO	World Health Organization

## DEFINITION OF KEY TERMS

**Animal:** Any living non-human creature, which has power of sense, perception and ability to move.

**Code:** a systematic collection of regulations and rules of procedure or conduct.

**Conflict of interests:** This arises when the individual's private or personal interests and professional obligations are convergent to such an extent that an independent observer may have doubt as to whether or not the individual's professional actions are influenced by personal considerations, financial or otherwise.

**Contract research:** All research projects performed for outside organizations and that are regarded as part of the researcher's service dispensation in terms of the provisions of the Rules for Contract Work of the University.

**Copyright:** The ownership and control of intellectual property in original works captured as a tangible form of expression from which it can be viewed, reproduced or otherwise communicated, whether directly or by means of a machine or device.

**Ethics:** Moral principles that govern a person's or group's behaviour or norms for conduct that distinguishes between acceptable and unacceptable behaviour.

**Human subject:** An individual on whom a researcher is conducting research by (a) collecting data by intervention or interaction with the individual, or (b) obtaining identifiable private information.

**Integrity:** The consistent maintenance of ethical values in all words and behaviours.

**Intellectual Property Rights:** Are the economic and moral rights conferred upon the owner of intellectual property by the relevant government in exchange of the disclosure of such property to the public.

**Intellectual property:** is an asset/possession that results from

creations of human mind (the intellect).

**Interaction:** includes communication or interpersonal contact between a researcher and the human subject.

**Intervention:** includes physical procedures, by means of which information is gathered, as well as engagement of an individual or manipulation of individual's environment for research purposes.

**Journal:** Periodical collection of publications of findings from original research work and reviews of the previous publication on specific subjects. The publications are written by researchers who are experts in a particular field of study.

**Participants in research:** Individuals involved in conducting the research.

**Private information:** information furnished by an individual for specific purposes on condition that his/her identity will not be made public.

**Publisher:** Person or company engaged in publishing of books, periodicals, and other scholarly work for business.

**Research governance:** Administrative structures put in place, and broad range of regulations, and guidelines that outlines procedures for guiding administration of research activities.

**Research Integrity Framework:** Collection of instruments such as code of conduct, regulations, guidelines in combination with processes, and structures for fostering integrity and preventing unscrupulous research activities.

**Research misconduct:** This entails any practice that constitutes a serious deviation from what is generally accepted within the scientific community in the proposal submission, conducting of research and reporting of findings.

**Research/research activities:** Any systematic investigation aimed at development of, or contribution to knowledge.

**Researcher:** Includes an individual taking part in conducting research

activity.

**Sponsors:** Governments, Institutions, Organisations or individuals who financially support research in part or in full.

**University:** Means Sokoine University of Agriculture (SUA), unless otherwise stated.

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## **1.0 INTRODUCTION**

### **1.1 Background Information**

Ethical clearance prior to conduction of certain research is a prerequisite in most institutions in the world. Worldwide, codes of conduct for research ethics at national and/or institutional levels exist and are responsible for guiding consideration of ethical aspects of various research activities. This is accordance with various conventions, including the Vancouver Convention. For instance, the National Health and Medical Research Council (NHMRC) of Australian Government have an institutional Animal Ethics Committee (AEC) that handles animal research ethical issues to ensure compliance with animal welfare. In Denmark, Danish Agency for Science, Technology and Innovation has produced a publication, which offers directional guidelines to researchers in relation to research ethics within the disciplines of social sciences. In Tanzania, the Commission for Science and Technology (COSTECH), the institution that is mandated to oversee all research and technology development, has developed a Research Integrity Framework (RIF)<sup>1</sup> to guides research institutions on the development of institutionalized research governance systems.

Before the development of a national research integrity framework, some of the institutions engaged in research had already established their own codes of conduct and have laid down ethically oriented regulations related to the use of human subject in research. These institutions include National Institute for Medical Research (NIMR)<sup>2</sup>, Kilimanjaro Christian Medical University College (KCMC)<sup>3</sup> and Muhimbili University of Health and Allied Sciences (MUHAS)<sup>4</sup>. Understanding the importance of ethics in research, Sokoine University of Agriculture (SUA)

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<sup>1</sup> Tanzania Commission for Science and Technology, National Research Integrity Framework of Tanzania (2020), 1<sup>st</sup> Ed., ISBN:978-9976-59-958-9

<sup>2</sup> <https://clinregs.niaid.nih.gov/sites/default/files/documents/tanzania/G-EthicsHR.pdf>

<sup>3</sup> <http://kcmuco.ac.tz/wp-content/uploads/2021/08/Research-Policy-and-Guidelines.pdf>

<sup>4</sup> <https://www.muhas.ac.tz/wp-content/uploads/2021/09/RESEARCH-POLICY-2020.pdf>

developed its own code of conduct for research ethics to guide ethical issues in research in 2012. Later in 2019 the University developed and published Research Regulations and Guidelines in order to facilitate the operationalization of the Code of Conduct for Research Ethics, 2012<sup>5</sup>.

Tanzania being a party to international conventions and treaties, and SUA as a major stakeholder in research is compelled to comply with international conventions that require ethical consideration in research. For Example, The International Plant Protection Convention (IPPC)<sup>6</sup>, The International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) of 2004<sup>7</sup>, and The International Code of Conduct on the Distribution and Use of Pesticides (1985)<sup>8</sup> just to mention a few. In addition, Tanzania has national acts that demand ethical consideration. These include The Animal Welfare Act (2008)<sup>9</sup>, The Plant Breeders Rights (2002)<sup>10</sup>, The Plant Protection Act (1997)<sup>11</sup>, and The Environmental Management Act (2004)<sup>12</sup>.

Since 2012, when the first guiding document on the code of conduct in research started to be effective, SUA has made progress towards compliance with international conventions that encourage the promotion of human dignity, animal welfare, conservation of biological diversity, and sustainable use of resources. The current revised version aims to take into account

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<sup>5</sup> Sokoine University of Agriculture, Research Regulations and Guidelines (2019), 4th Ed., ISBN:9789987 640 9 0

<sup>6</sup> <https://www.ippc.int/en/publications/>

<sup>7</sup> The International Treaty on Plant Genetic Resources for Food and Agriculture (2004) is available on <http://www.planttreaty.org/>

<sup>8</sup> The International Code of Conduct on the Distribution and Use of Pesticides was adopted in 1985 by the 21<sup>st</sup> session of FAO Conference and was subsequently amended to include provisions for the Prior Informed Consent (PIC) procedure at the 25th Session of the FAO Conference in 1989 available on FAO website: <https://www.mifugouvuvu.go.tz/uploads/publications/sw1530701601-Animal%20Welfare%20Act%202008.pdf>

<sup>9</sup> [https://www.kilimo.go.tz/uploads/regulations/Plants\\_Breeders\\_Right\\_Act\\_2002.pdf](https://www.kilimo.go.tz/uploads/regulations/Plants_Breeders_Right_Act_2002.pdf)

<sup>10</sup> [https://www.kilimo.go.tz/uploads/regulations/Plant\\_Protection\\_Act\\_1997.pdf](https://www.kilimo.go.tz/uploads/regulations/Plant_Protection_Act_1997.pdf)

<sup>11</sup> [https://trade.tanzania.go.tz/media/Plant\\_Protection\\_Act%201997\\_1.pdf](https://trade.tanzania.go.tz/media/Plant_Protection_Act%201997_1.pdf)

<sup>12</sup> <https://www.nemc.or.tz/uploads/publications/sw-1576228517-ema%20act2004.pdf>



contemporary and emerging issues in research and affirm the institutional commitment to provide quality research and services through the professional and ethical implementation of research activities. The document will guide staff and students in making proper decisions on ethical issues in research.

## **1.2 Objectives**

The overall objective of the code of conduct is to commit all researchers to the integrity standards in all aspects of research processes originated from basic principles of good research practice.

Specifically, the code of conduct will:

- i. Foster a culture of responsible research management and oversight among researchers;
- ii. Promote awareness and responsible conduct of research among researchers;
- iii. Promote timely mechanisms of reporting, recording and handling research misconduct and ethics;
- iv. Protect human participants and related human subjects (such as relatives of deceased persons whose archived and historical materials are used) during research;
- v. Ensuring that research is done in a manner which serves the interests of people, groups or society; and
- vi. Examining research projects and activities for their ethical standards, checking for things like risk management, safeguarding of confidentiality and the procedure of informed consent.

## **1.3 Justification**

Ethical adherence is necessary for most research undertakings, especially those involving human subjects, access to personal records, animals, animal products, plants, plant products etc. The University carries out many research activities which directly or indirectly affect humans, people's properties, animals, plants, and

the environment, all of which need to be regulated. The code of conduct for research ethics helps researchers and the research community to be cognisant of their ethical views and attitudes, raise their awareness of ethical standards, promote good judgment, and enhance their ability to make well-founded decisions in the face of conflicting considerations.

Furthermore, all research institutions and related agencies are compelled to have in place a Research Governance Framework (RGF) through which researches will be assessed for quality, safety, privacy, risk management, financial management and ethical acceptability. The framework encourages institutions to have quality assurance mechanisms that will create and maintain a culture of good research conduct.

To facilitate compliance with the above requirements, the University must have a code of conduct that provides the modality for developing such clearances within the Institution or in collaboration with approved authorities in line with the existing national guidelines and legislation designed to facilitate research integrity. The legislation encourages the formulation of institutional guides for researchers in their respective fields.

This document will guide researchers to identify relevant factors that need to be taken into account when conducting research and also highlights the acts of legislation of which researchers should be aware. The code will help researchers plan and implement their research activities without infringing the rights of others or breaching the existing regulations, guidelines, and laws.

In doing so, Tanzania will fulfil international conventions that promote human dignity, animal welfare, conservation of biological diversity, sustainable use of resources, fair and equitable sharing of benefits arising from the use of such resources, and respect for the rights of indigenous and local communities. In recognition of the challenges and opportunities which come with a subscription to such Treaties and Conventions, it becomes necessary for

the nation and its institutions to develop codes of conduct for research ethics to provide instruments to guide, monitor, evaluate and enforce compliance.

## **2.0 AREAS OF RESEARCH REQUIRING ETHICAL CONSIDERATION**

### **2.1 Conduct and handling of medical research involving human subjects**

Ethical research and knowledge transfer activities involve a fundamental duty of care to subjects and participants. Researchers must show respect for human dignity in their choice of topic, in relation to their research subjects, and in reporting research results. This includes ensuring such conditions as confidentiality and anonymity, informed consent, treatment with dignity, avoidance of harm or deception, and appropriate dissemination.

The physiological, psychological and social well-being of, and avoidance of deleterious consequences for, the research participant should always be a significant consideration of the researcher or research team. Procedure for evaluation and approval of research involving human subjects is provided in the SUA Research Regulations and Guidelines of 20192. Areas that will be scrutinized for compliance include:

- i. Interaction with human subjects for interviews/questionnaire;
- ii. Interaction with human subjects for clinical studies;
- iii. The use of potentially identifiable personal records or information;
- iv. Use of individual medical records
- v. Use of human organs, tissue specimens, progenitor or stem cells;
- vi. Testing drugs, food or nutritional supplements; and
- vii. Vulnerability of research subjects to coercion and other conditions that may impair judgment of the research subjects.

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**Research activities must comply with the following principles:**

- i. Research must be relevant to the needs and interests of the community in which the study is conducted;
- ii. Research must have a valid scientific methodology;
- iii. Researchers must ensure a fair selection of research subjects;
- iv. All research involving human subjects must include Tanzanian researcher(s);
- v. Foreign researchers applying for temporary research in Tanzania through Sokoine University of Agriculture shall include SUA employee as his/her contact person at SUA;
- vi. In addition to the compliance of his/her own institutional ethical clearance and National guidelines of the United Republic of Tanzania on foreign researchers, all research proposals involving SUA employee or SUA registered students shall be subject to ethical clearance at SUA;
- vii. Researchers shall work on the basis of basic respect for human dignity and are obliged to respect their subjects' integrity, freedom and right to participate;
- viii. Any research must be preceded by a thorough risk analysis to prevent research subjects from being exposed to harm or other suffering;
- ix. Research subjects are to be given all the information they require to gain a reasonable understanding of the field of research in question, of the consequences of participating in the research project, and of the purpose of the research. Subjects shall also be informed about who is funding the research;
- x. Researchers are responsible for explaining to their subjects the limitations, expectations and requirements that pertain to their roles in research;
- xi. Research projects that include individuals can be initiated only after securing subjects' free and informed consent. The subjects have the right to withdraw from the participation at

- any time, without this entailing any negative consequences for them;
- xii. Research subjects are entitled to a guarantee that all information they provide about their private lives will be treated confidentially. Researchers must prevent the use and dissemination of information that could harm individual research subjects;
  - xiii. Identifiable personal data collected for one particular research purpose cannot be automatically used for another research. Such data must not be used for commercial or administrative purposes. Consent of the subjects must be obtained before using data for any other purpose than originally assented;
  - xiv. Data related to identifiable individuals shall be stored responsibly. Such data shall not be stored any longer than what is needed to attain the objective for which it was processed;
  - xv. Research subjects are entitled to be able to check whether confidential information about them is accessible to others;
  - xvi. Researchers must show respect to the values and views of research subjects, even if they differ from those generally accepted by the society at large. Researchers should not ascribe irrational or unworthy motives to anyone without providing convincing arguments for doing so;
  - xvii. When children and people with special needs participate in research, they are entitled to special protection that should be commensurate with their age and needs;
  - xviii. Caution shall be exercised when deceased people are the subject of research. The fact that the deceased can no longer raise objections, does not reduce the requirement for meticulous documentation. Out of respect for the deceased and their surviving relatives, researchers must choose their words with care. Graves and human remains must be treated with the utmost respect where research is concerned;

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- xix. Researcher should consider and anticipate effects on third parties that are not directly included in the research; and
  - xx. Where relevant researchers must comply with Guidelines for conducting clinical trials in Tanzania<sup>13</sup> and other relevant guidelines and regulations provided under the Tanzania Food, Drugs and Cosmetics Act (2003)<sup>14</sup>.

All human health research projects that will involve access to personal medical records, clinical trials on human subjects or collection of human samples must be submitted to the Medical Research Coordinating Committee (MRCC)<sup>15</sup> through National Human Health Research Ethics Review Committee (NHRERC) hosted at the National Institute for Medical Research Institute (NIMR).

All medical research registered or conducted at SUA shall require research clearance from SUA and which will be granted by the University subject to the presentation of research clearance from NHRERC and passing an independent evaluation at Sokoine University of Agriculture.

Non-medical research involving human subjects shall not require research clearance from NAHRERC but shall be subject to evaluation and clearance at SUA.

All medical research involving human subjects' researchers must comply with International Ethical Guidelines for Biomedical Research (2002)<sup>16</sup> recommended by the Council for International Organizations of Medical Sciences (CIOMS) and World Health Organization (WHO). In addition, researchers should observe and respond to ethical regulations and guidelines as may be

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<sup>13</sup> <https://www.tmda.go.tz/uploads/publications/en1554368837-tanzania%20clinical%20trial%20guidelines-%202017.pdf>

<sup>14</sup> [https://www.tmda.go.tz/uploads/publications/en1545378328-the%20Tanzania%20Food,%20Drugs%20and%20Cosmetics%20\(Scheduling%20of%20Medicines\)%20\(Amendments\)%20%20Regulations,%202018%20.pdf](https://www.tmda.go.tz/uploads/publications/en1545378328-the%20Tanzania%20Food,%20Drugs%20and%20Cosmetics%20(Scheduling%20of%20Medicines)%20(Amendments)%20%20Regulations,%202018%20.pdf)

<sup>15</sup> [http://nimr.or.tz/wp-content/uploads/2022/01/MRCC\\_Ethical\\_Guidelines.pdf](http://nimr.or.tz/wp-content/uploads/2022/01/MRCC_Ethical_Guidelines.pdf)

<sup>16</sup> [https://www.nimr.or.tz/wp-content/uploads/2022/01/Guidelines\\_of\\_Ethics\\_for\\_Health\\_Research\\_in\\_Tanzania.pdf](https://www.nimr.or.tz/wp-content/uploads/2022/01/Guidelines_of_Ethics_for_Health_Research_in_Tanzania.pdf)

stipulated by various documents issued by the by other relevant international bodies, ministries and local government authorities (LGA).

## **2.2 Conduct and handling of research involving animals and animal products**

The use of animals in scientific research can only be justified if the benefits to both humans and animals outweigh the potential harm to the animal subject. Justification for causing psychological or physical distress, illness or pain to animals should not be based on any explicit or implicit assumption that animals experience these conditions in qualitatively different ways to humans. Researchers should make assumption that any experimental procedure that can cause psychological or physical distress in human is capable of doing the same to animals regardless of the animal species. To assist researchers in making the right judgment, before commencement of any research, a formal evaluation of the potential harm to the research subjects against benefits to animals/mankind must be undertaken by Committee responsible for overseeing Research and Publication as stipulated in the Research Regulations and Guidelines of 2019 and the subsequent reviews.

Furthermore, all research involving animals and animal products must comply with relevant National Policies<sup>17</sup> and acts of legislation. Such policies include The National Livestock Policy (2006) and Wildlife Policy (2007) and Fisheries Policy. Legislations which must be adhered to when conducting research on animals and animal products include but not limited to, the Wildlife Conservation Act (2009)<sup>18</sup>, The Veterinary Act (2003)<sup>19</sup>, Fisheries

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<sup>17</sup> Tanzania National policies available at: <http://www.hakikazi.org/policies.html>

<sup>18</sup> <https://www.maliasili.go.tz/resources/category/acts-and-policies>

<sup>19</sup> [https://www.tva.or.tz/images/Veterinary\\_Act\\_16\\_2003.pdf](https://www.tva.or.tz/images/Veterinary_Act_16_2003.pdf)

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Act (2003)<sup>20</sup>, The Animal Diseases Act (2003)<sup>21</sup>, The Beekeeping Act (2002)<sup>22</sup>, The meat Industry Act (2006)<sup>23</sup>, The Animal Welfare Act (2008)<sup>24</sup>, and the Grazing Land and Animal Feed Resources Act (2010)<sup>25</sup>. In addition to compliance to legal provisions, all animal research conducted under the auspices of this University should uphold the “**Three R**” principles for humane animal research, namely:

- i. Replacement of animals, wherever possible, with research models or systems in order to eliminate unnecessary use of animals;
- ii. Reduction of the numbers of animals in experiments by designing strategies that facilitate use of the smallest number that will allow valid information to be obtained from the study; and
- iii. Refinement of animal sourcing, care, experimentation and disposal.

Before researchers considers conducting experiments using animals, should first consider and demonstrate that the proposed research cannot be done using other means or model and provide a convincing case why animals should be used in the proposed research. The necessity to use animals shall be determined by the ethical review committee which shall recommend accordingly to the Senate Postgraduate Studies, Research, Technological Transfer and Consultancy (SPRTC) committee for final decision on the use of animals. If it is necessary that animals be used in research, researchers shall demonstrate efforts done to minimize the use of unnecessary large number of animals through scientific and

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<sup>20</sup> <https://www.ilo.org/dyn/natlex/docs/ELECTRONIC/86528/97743/F1806137715/TZA86528.pdf>

<sup>21</sup> [https://www.tva.or.tz/images/The\\_Animal\\_Diseases\\_Act\\_No\\_17\\_of\\_2003\\_CAP\\_156.pdf](https://www.tva.or.tz/images/The_Animal_Diseases_Act_No_17_of_2003_CAP_156.pdf)

<sup>22</sup> [https://trade.tanzania.go.tz/media/Beekeeping\\_Act\\_2002.pdf](https://trade.tanzania.go.tz/media/Beekeeping_Act_2002.pdf)

<sup>23</sup> <http://extwprlegs1.fao.org/docs/pdf/tan142842.pdf>

<sup>24</sup> [https://www.tva.or.tz/images/Animal\\_Welfare\\_Act\\_2008.pdf](https://www.tva.or.tz/images/Animal_Welfare_Act_2008.pdf)

<sup>25</sup> <http://extwprlegs1.fao.org/docs/pdf/tan97356.pdf>



objectively verifiable manner. In the event that, researchers are granted permission to use animals in research, researchers shall use the approved protocol and shall be responsible for ensuring the animals used in research are not subjected to psychological and physical distress or any form of preventable sufferings. The researcher shall adhere to the relevant professional codes procedures to eliminate physical and psychological distress within the limitation imposed by the objectives of the research and the approved research methods. Examples: code of conduct provided by various International and National professional bodies such as Code of Professional Conduct and Ethics for Veterinarians and Veterinary Specialists (2005).

Students and researchers wishing to conduct their research using animals shall strive to acquire relevant knowledge on physiological and biological requirements of the respective animals, and basic skills on handling and restraints of the respective animal species. If all researchers in the team lack such skills, researchers responsible for daily handling and interacting with experimental animals shall be required to undergo relevant short-term training before executing the proposed research or shall co-opt other researcher(s) with the required skills. To ensure wellbeing of animals used in research, all research teams applying for research involving keeping and or testing of substances on animals should include a registered Veterinarian who will be responsible for monitoring day to day health of the experimental animals.

### **2.3 Conduct and handling of research involving plants and plant products**

All researchers undertaking research on plants and plant products must ensure that they familiarize themselves with current National Agriculture Policy, Forest Policy, Environmental Policy and other relevant policies. To ensure compliance with appropriate phytosanitary procedures, researchers must observe and adhere to provisions of acts of legislation guiding and

regulating research conducted on plants and plant products. Such acts include Plant Protection Act (1997), The Seeds Act (2003), The Protection of New Plant Varieties/Plant Breeders Rights Act (2002), The Tropical Pesticides Research Institute Act (1979), The Fertilizers Act (2009), The Environmental Management Act (2004) and The Food Security Act (1991). In addition to national policies and laws, international treaties, conventions, commissions and advisory bodies play a major role in international cooperation for plant production, protection and food security. Researchers working in this area need to acquaint themselves and comply with the provision's treaties and conventions which the country has acceded to. Such agreements include:

- i. **The International Plant Protection Convention (IPPC)** which sets standards for the safe movement of plants and plant products to prevent the spread of plant pests and diseases internationally. Compliance with IPPC obligations and International Standards for Phytosanitary Measures (ISPMs)<sup>26</sup> is a vital element in countries' food security and ability to trade internationally.
- ii. These standards are important as they allow for the protection of domestic consumers, producers and the environment from the risks of introduced pests, and help exporters demonstrate that their products are safe.
- iii. **The International Rice Commission (1949)** aims to promote national and international action in matters relating to the production, conservation, distribution and consumption of rice.
- iv. **The International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA)**<sup>27</sup> of 2004 is an international agreement with the overall goal of supporting sustainable agriculture and global food security. The Treaty, allows governments, farmers, research institutes and agro-

<sup>26</sup> <https://www.fao.org/3/y5874e/y5874e.pdf>

<sup>27</sup> <https://www.fao.org/3/i0510e/i0510e.pdf>

- industries to work together by pooling their genetic resources and sharing the benefits derived from their use. The fair sharing of benefits arising from the use of these resources has for the first time been practically implemented at the international level through its Multilateral System and its Standard Material Transfer Agreement.
- v. **The International Code of Conduct on the Distribution and Use of Pesticides (1985)**<sup>28</sup> was one of the first voluntary Codes of Conduct in support of increased food security, while at the same time protecting human health and the environment. The Code established voluntary standards of conduct for all public and private entities engaged in, or associated with, the distribution and use of pesticides, and since its adoption has served as the globally accepted standard for pesticide management.
  - vi. **The FAO Regional Commissions for Locust Control** are a major international collaboration for the exchange of data regarding actual and potential locust upsurges between neighbouring countries. The information is especially useful for control of trans- boundary plant pests and diseases.
  - vii. **The Cartagena Protocol on Biosafety to the Convention on Biological Diversity**<sup>29</sup> is an international agreement which aims to ensure the safe handling, transport and use of living modified organisms (LMOs) resulting from modern biotechnology that may have adverse effects on biological diversity, taking also into account risks to human health. It was adopted on 29 January 2000 and entered into force on 11th September 2003. No researcher of plants or plant products shall be allowed to deviate from the provisions of the policies, legislations and international conventions and treaties.

<sup>28</sup> [http://apps.who.int/iris/bitstream/handle/10665/70293/WHO\\_HTM\\_NTD\\_WHOPEPES\\_2010.7\\_eng.pdf;jsessionid=2246C74FADA56E95B5BAEA6F55DDE37D?sequence=1](http://apps.who.int/iris/bitstream/handle/10665/70293/WHO_HTM_NTD_WHOPEPES_2010.7_eng.pdf;jsessionid=2246C74FADA56E95B5BAEA6F55DDE37D?sequence=1)

<sup>29</sup> <https://www.cbd.int/doc/legal/cartagena-protocol-en.pdf>

## 2.4 Conduct and handling of research involving hazardous materials

Hazardous chemicals such as pesticides, poisons, radioactive materials, carcinogens, mutagens, teratogens and inflammable materials are increasingly being used in research. The use of such materials in the laboratory and field, as well as their disposal should be properly controlled in order to protect workers, the public, animals and the environment.

All Research involving hazardous materials that could potentially cause harm to humans, animals and/or the environment must be submitted to evaluation using procedures outlined in the Research Regulations and Guidelines of Sokoine University of Agriculture. Researchers working on such materials must ensure they familiarize themselves and comply with appropriate safety and containment procedures as provided in relevant International and National regulations and guidelines. Such researches include:

- i. **Radioactive materials.** Extreme care should be observed when handling radioactive materials. Researchers should sustain strict adherence to safety and containment Regulations as provided by International Atomic Energy Agency (IAEA), National Atomic Energy Act (2003) and Regulations governing handling of radioactive material (2011)
- ii. **Recombinant DNA techniques and genetically modified organisms (GMOs) or Living Modified Organisms (LMOs).** Before embarking on research on genetically modified organisms (GMO), researchers should understand the legislative provisions and global protocols governing biosafety issues. Such protocols include Cartagena Protocol on Biosafety to the Convention on Biological Diversity 12 (2000) which provides an international regulatory framework to reconcile the respective needs of trade and environmental protection with respect to a rapidly growing global industry, the biotechnology industry. The Protocol thus creates an enabling environment for the

- environmentally sound application of biotechnology, making it possible to derive maximum benefit from the potential that biotechnology has to offer, while minimizing the possible risks to the environment and to human health.
- iii. **Pathogenic organisms.** Researcher should understand The Plant Protection Act and regulations (1997), The Seeds Act (2003) and The Animal Diseases Act (2003),
  - iv. **Exotic plants, animals and microorganisms.** Researcher should understand The Plant Protection Act (1997), Seeds Act (2003)
  - v. **Research which may potentially cause harm to the natural environment.** In addition to the Regulations provided in the National Pesticide Management Act and guidelines issued by the Tropical Pesticides Research Institute (TPRI) and The Environmental Management Act (2004), researcher should be aware of the Rotterdam Convention which covers international trade in certain hazardous chemicals with the aim of protecting human health and the environment. The Convention also contributes to the environmentally sound use of these chemicals, with exchange of information about their characteristics, by providing for a national decision-making process on their import and export and by disseminating these decisions to Parties.
  - vi. **Banned materials.** Researchers should refrain from conducting research using materials which are banned by the law or restricted by government order or any other legal provision.

## 2.5 Conduct and handling of research affecting the environment

A researcher will be responsible for ensuring that his/her research is carried out with the necessary respect for the impact that it could have on environment. Where a scientific investigation involves the physical, biological or spatial environment as subject

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of investigation or otherwise, the researcher should comply with relevant International Conventions, the Environmental Management Act (2004) and guidelines and regulations provided by the National Environment Management Council (NEMC).

The following are some prominent International Conventions, which researchers need to be aware of and comply to:

- i. **Ramsar Convention on Wetlands of International Importance (1975)**<sup>30</sup> aims at stemming the loss of and promoting the wise use of all wetlands. The convention addresses one of the most important issues in Tanzania, namely the conservation of the country's water supplies for the use of both the natural and the human environments.
- ii. **Convention on Biological Diversity (1993)**<sup>31</sup> aims at effective international cooperation in the conservation of biological diversity and to promote the sustainable use of living natural resources worldwide. It also aims to bring about the sharing of the benefits arising from the utilisation of natural resources.
- iii. **United Nations Framework Convention on Climate Change (UNFCCC) of 1993**<sup>32</sup> addresses the threat of global climate change by urging governments to reduce the sources of greenhouse gases. The ultimate objective of the convention is to stabilise greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous interference with the climate system of the world.
- iv. **Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and their Disposal (1994)**<sup>33</sup> provides restrictions on transboundary movement and disposal of such waste. It also aims to ensure that any transboundary movement and disposal of hazardous waste, when allowed, is strictly controlled and is undertaken in an

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<sup>30</sup> <https://www.wetlands.org/wetlands/ramsar-convention/>

<sup>31</sup> <https://www.cbd.int/>

<sup>32</sup> <https://unfccc.int/resource/docs/convkp/conveng.pdf>

<sup>33</sup> <https://www.basel.int/Portals/4/Basel%20Convention/docs/text/BaselConventionText-e.pdf>

environmentally sound and responsible way.

- v. **Rotterdam Convention on Prior Information Consent of (1998)**<sup>34</sup> ensures obligatory detailed information exchange between countries on hazardous chemicals and pesticides allowing informed decision- making.
- vi. **World Heritage Convention Concerning the Protection of the World Cultural and Natural Heritage of (1972)**<sup>35</sup> aims to promote cooperation among nations to protect all forms of natural and cultural heritage that are of such outstanding universal value that their conservation is of concern to all people.
- vii. **Montreal Protocol for the Protection of the Ozone Layer (1990)** aims at ensuring measures to protect the earth's ozone layer.
- viii. **United Nations Convention on the Law of the Sea (UNCLOS) of (1982)**<sup>36</sup> represents a codification of international law rules for states to observe in marine-related operations.

## 2.6 Conduct of Humanities, Social and Behavioural Sciences related research

Social science and humanities research is increasingly influenced by the myriad of economic, political, legal and cultural settings, which often time determine its focus and emphasis. Because of this, some incidences of social science and humanities research require that a researcher, notwithstanding the provisions of the main rules such as confidentiality, consented participation and others provided in section 2.1 of this Code of Conduct, to work with “exceptions” or “modifications”<sup>37</sup> as dictated by the practical or technical considerations of a research. In incidences such as

<sup>34</sup> <https://wedocs.unep.org/bitstream/handle/20.500.11822/27561/Rotterdam.pdf?sequence=1&isAllowed=y>

<sup>35</sup> <https://whc.unesco.org/en/conventiontext/>

<sup>36</sup> [https://www.un.org/depts/los/convention\\_agreements/texts/unclos/unclos\\_e.pdf](https://www.un.org/depts/los/convention_agreements/texts/unclos/unclos_e.pdf)

<sup>37</sup> [https://dafre.rutgers.edu/documents/Articles\\_Ethics\\_research\\_%20social\\_sciences.pdf](https://dafre.rutgers.edu/documents/Articles_Ethics_research_%20social_sciences.pdf)

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behavioural research for example, where observation is used as a data collection method, the prior informed participation consent is likely to change or modify subject's reaction and actions hence the quality of measurement<sup>38</sup>. Social and behavioural sciences researchers in such situation may find themselves opt to conduct research without prior informed consent.

The social science researcher is required to:

- i) Justify the use of modification by evidence of the value and benefits of research to the subjects and where the feasible and ethically sound alternatives are absent.
- ii) Take particular precautions to preserve respect for human dignity and protection of subjects.
- iii) Observe and consider reactions of unconsented subjects in the course of research activities. Any indication of reluctance therein may signal refusal to participate and therefore researcher should release the subject from research.

### **3.0 RESPONSIBILITIES OF RESEARCHERS AND COLLABORATORS**

#### **3.1 General conduct**

Researchers should be guided by a profound conviction of the value and dignity of the promotion of knowledge and should recognize the particular responsibilities imposed on them by this code of research ethics. The primary obligations of researchers shall be to pursue and present true information about their research, exercise critical self-discipline and judgment in their decisions regarding the use, expansion, and dissemination of knowledge. In addition, researchers should accept responsibility for:

- i. Design of methodology and execution of their research
- ii. Plan research in such a way that the findings will be credible and valid
- iii. Fill and maintain laboratory book which shall remain the

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<sup>38</sup> <https://the-sra.org.uk/common/Uploaded%20files/ethical%20guidelines%202003.pdf>



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- property of the University
- iv. Report findings and their limitations
  - v. Use of funds in responsible manner
  - vi. Ensuring adherence to the signed research agreements.

### 3.2 Research collaborations

Researchers have a responsibility to establish and maintain close collaboration and a clear understanding of the respective roles and responsibilities of each collaborator. Such collaboration should be established at the beginning of the research project as stipulated in SUA Intellectual Property Rights (IPR) policy<sup>39</sup>. Research collaborators include research conducted in collaboration with clients or sponsors, the society, the government, fellow researchers, students, and clients or funding agents. Research conducted for clients and sponsors who prescribe specific objectives is subject to the normal conventions of contract research and also to the applicable University rules for contract work and SUA research policy, the following important ethical issues should be observed:

- i. **Conflict of interests** - Any conflict of interests should be avoided, and all researchers are required to make known any potential conflict of interests. Interference by clients or sponsors that could compromise the integrity of the research is unacceptable.
- ii. **Confidentiality of research results** - Agreements with clients and sponsors of research are subject to the SUA IPR Policy. Information regarding the identity of participants in contract research will not be made available to sponsor(s), unless the individual participants agree.
- iii. **Financial obligations** - Remuneration agreements for participants and researchers should be set out in the contract or in the conditions of grant (often based on a funding application), as well as other approved budgetary items. Although the legal

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<sup>39</sup> <https://www.sua.ac.tz/sites/default/files/documents/page/policies/SUA-Intellectual-Property-Policy-Council-Approved-2020.pdf>

agreement for the funding of a specific project is between the sponsor and SUA, **the general responsibility for the financial management of a funded project rests with the project/programme leader.** Funds should be spent within the confines of the contract or grant.

- iv. **Equipment control** - Control of both University and state property is usually determined by external contracts and allocations as well as by University policy. Project/programme leaders are responsible for the required approval for purchasing equipment, for reporting it to the University and for ensuring that it is properly marked, and also for the removal thereof where necessary.
- v. **Funds for new fields of research** - The costs of the preparation of research proposals and other activities in support of new fields of research may not be offset against funded projects or project costs intended for other purposes.
- vi. Researchers should accomplish the objectives of research within the agreed period.
- vii. **Materials and Data transfer** - Materials and data acquired during research shall be stored for the duration of the research period. It is the responsibility of the researcher to accurately record, retain and store data and any materials used to generate such data with sufficient details to facilitate clear understanding of such data by peers in the respective field. Materials and data to be transferred between SUA and any other institution shall be done in a simple and transparent manner, whilst protecting the interests of the owners of the samples and associated data subject to the terms and conditions in the Material Transfer Agreement. Archiving, Ownership, Transfer of research data and materials shall be done as stipulated in section 7 of the Research Regulations and Guidelines of Sokoine University of Agriculture, 4<sup>th</sup> Edition (2019) and the IPR Policy of 2020.

### 3.2.1 The Society and Government

Researchers should, at all times endeavour to serve the whole society and contribute to the well-being of all humanities. They should be aware and respond to the priorities identified by the Government and the University with regard to pressing socio-political and economic issues in the society. However, they must not be forced to confine their activities only to the immediate priorities of the Government. In addition, researchers should recognize the right of the community to have access to research findings and information in as far as it does not encroach upon the right of clients, sponsors or participants in research.

### 3.2.2 Fellow Researchers

SUA researchers are encouraged to undertake joint research projects with colleagues within SUA, other local and foreign institutions and to promote inter- or multidisciplinary research or to take part in such research. In such instances, researchers have responsibility to:

- i. Ensure that they are familiar with relevant policies and regulations of the institutions concerned, e.g., Research Policy and Intellectual Property Right Policy;
- ii. Emphasize rightful acknowledgement in the presentation of ideas and the publication of manuscripts; and
- iii. Ensure authorship is awarded only to those persons who have made an original and significant contribution to the conceptualization, design, execution and interpretation of the published work. **All authors should approve the final version of the manuscript and should be prepared to accept responsibility for the work in public.**

### 3.2.3 Research conducted by students

The University has an obligation towards the broad academic community, the students and the public to ensure that all students involved in research activities do so with responsibility and with

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respect for the highest professional standards. Research supervisor, project leaders and heads of department share the responsibility for providing an open and equal research environment which protects the interests of students, assistants and other vulnerable persons undergoing training. They must ensure that students are:

- i. Given fair acknowledgement for original work;
- ii. Treated as peers with the same professional courtesy; and
- iii. Aware of their obligations and sign relevant research contracts as stipulated in the University's IP Policy.

Research supervisors and project leaders are responsible for:

- i. Providing a training environment in which issues relating to ethical values are discussed freely;
- ii. Ensuring that students have at least a basic understanding of research ethics and are able to identify and deal with the ethical issues relating to their research, results and publications; and
- iii. Ensuring that the research relationship or project start with a clear understanding of mutual responsibilities, a commitment to maintain a supportive research environment, proper supervision and review, and a clear purpose of preparing trainees to become successful researchers.

Students in turn have a responsibility to:

- i. Complete assigned work diligently;
- ii. Respect the authority of others working in the research setting;
- iii. Follow research regulations and protocols;
- iv. Abide by agreements established for authorship and ownership of intellectual property; and
- v. Understand, sign and abide by research agreements provided by Technology Transfer Office (TTO).

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## 4.0 RESEARCH INTEGRITY

Researchers are expected to maintain the highest standards of honesty and integrity. Researchers must at all times function within the existing research paradigm and ethically acceptable methodological framework. Any form of research dishonesty, including but not limited to the following, will be regarded as a serious offence:

- i. Failure to give proper acknowledgement to the inputs of collaborators;
- ii. Fraudulent inclusion or reporting and manipulation of factual information;
- iii. Plagiarism as the appropriating of literary work, or portions of such work, by someone else, the presentation thereof as if it were the guilty person's own work and any other forms as defined in the University Anti-Plagiarism Policy and Guidelines (2019)<sup>40</sup>;
- iv. Unauthorized use of confidential research results (research theft) where this is not in accordance with acceptable academic or collegial behaviour;
- v. Unacceptable acquisition, allocation and misuse of funds allocated for research purposes;
- vi. Retribution of any nature against a person who has acted in good faith in reporting suspected or alleged research misconduct or in giving information in this regard;
- vii. Unlawful and unauthorized use of University property and equipment;
- viii. Violation of copyrights or any other form of intellectual property rights provided in the University policies, National legislation and global treaties and conventions to which Tanzania has acceded;
- ix. Failure to comply with research tasks forming part of work duties;

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<sup>40</sup> <https://www.sua.ac.tz/sites/default/files/documents/page/policies/SUA-Intellectual-Property-Policy-Council-Approved-2020.pdf>

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- x. Undermining other individuals' fundamental rights in the execution of research;
  - xi. Violation of Vancouver Conventions related publications; and
  - xii. Social misbehaviour practices e.g., sexual favours, racist appellation and gender discrimination.

If a researcher is found guilty of **research misconduct**, appropriate action against the person concerned will be taken as set out in the conditions of service and disciplinary code of Sokoine University of Agriculture.

## 5.0 PUBLICATION OF RESEARCH

### 5.1 Predatory Journals and Publishers

SUA has continued to remain among the centre of excellence in research and education and her researchers continued to gain recognition worldwide in terms of quality of research and publications. While the quality of publications is ensured, it has come to the attention of the SUA community that more journals and publishers of books are coming up, and the quality of some of these journals and publishers is disputed. These undesirable journals and publishers referred to as predatory journals and publishers respectively. In order to maintain the current excellence in research, SUA researchers shall take all precautionary measures to avoid publishing their scholarly work in questionable journals and publishers. Predatory Journals and publishers are distinguished from credible journals by using common features frequently found in journals with disputable credibility as stipulated in the **Harmonized Scheme of Service (2022)**. Examples of these features include:

- i. Publish for disputable fees. Example: request publication fees to be paid in advance during or when submitting the article before peer review.
- ii. Offers options for researchers to prepay article processing charges/fees (APCs) for future articles.
- iii. Offer rapid publication with little or no peer review.

- iv. Irregular publication.
- v. No Editorial board.
- vi. Unqualified editorial board members.
- vii. Lack of transparency, sometimes authors become aware of fees after submission of manuscript.
- viii. Non-professional or journal affiliated email address(es).
- ix. False or misleading information (e.g. Impact factor, Digital Object Identifier (DOI)).
- x. Inscription of the manuscript handling process is lacking.
- xi. Little or no specific scope (specialization).
- xii. False affiliation to institutions.
- xiii. No affiliations for editorial and/or editors.
- xiv. Falsely claims universities or other organizations as partners or sponsors.
- xv. Not indexed or falsely claim indexing in well-known databases.
- xvi. Claim to be open-access; either retains copyright of published research or fail to mention copy-right.
- xvii. Fake International Standard Serial Number (ISSN).
- xviii. Any other features that maybe approved by the University.

## **5.2 Guidance on Predatory Journals and Publishers**

The Directorate responsible for Research and Publications shall liaise with the Sokoine National Agricultural Library (SNAL) to provide guidelines for choice of journals and publishers to SUA researchers to safeguard academic integrity. Such guidelines shall be implemented in harmony with SUA code of conduct in research, Harmonised Scheme of Service (2022) and other national guidelines on integrity of scholarly journals and publishers. In case of any contradiction arising from institutional guidelines, criteria for identification of predatory Journals and publishers put forward in the Harmonized Scheme of Service (2022) shall prevail.

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### 5.3 SUA hosted Journals

All SUA hosted journals should strive to adhere to the best practices of journal publishing and should participate in reputable indexing services. The operation of these journals should be guided by the University Research Regulations and Guidelines:

- i. The Directorate responsible for research shall liaise with other stakeholders including discipline specific societies and associations to support these journals to achieve and maintain international standards.
- ii. No journal hosted at Sokoine University of Agriculture shall engage in unscrupulous publishing including disregard of peer review, or act against the acceptable standards of scholarly publishing that will be determined by the Directorate responsible for research.
- iii. SUA hosted Journals are expected to show and adhere to the following qualities:
  - a. Having clear and unique title;
  - b. State clearly the aim and scope;
  - c. Possess Editorial Boards with diverse institutional affiliation, of which at least 25% of members should come from outside Tanzania and from reputable institutions;
  - d. Show clearly peer review process, fees (if any) and procedures for detection and handling of publication malpractices;
  - e. State clearly copyright policy and procedures for copyright transfer where applicable;
  - f. State clearly frequency of publication and strive to maintain the stated publication calendar;
  - g. Have ISSN for all categories of publications example print and online;
  - h. Indicate any affiliation with other institutions;
  - i. Strive to reach a wider readership by publishing contents online; and
  - j. Register with international credible electronic databases



and strive to register digital object identifiers for all online contents.

## 6.0 INTELLECTUAL PROPERTY RIGHTS

The commercialization of the University's knowledge base and technology transfer are regarded as an integral part of the University's responsibility to the broader community. The University is committed to encourage research and development which may lead to inventions, products or business ideas that can be exploited commercially and to unlock the value of its knowledge base to the benefit of both inventors and the broader community. The provisions of SUA regarding intellectual property ownership, rights and modes of disposition are set out in the University's Intellectual Property (IP) Policy (2020) and IPR Guideline (2022). Researchers should be aware of these provisions and should utilize them for their own benefits and for the benefit of the University.

In addition to the University IP policy, various National legislations provide statutory expression to moral and economic rights of IP generators as a deliberate act to promote creativity in research and disclosure of new knowledge. Among the national legislations which govern such rights include the Copyright Act (1999)<sup>41</sup>, the Merchandise Marks Act (1963)<sup>42</sup>, The Trade and Service Mark Act (1986)<sup>43</sup>, the Patent Act (1987)<sup>44</sup> and The Protection of Plant Varieties (Plant Breeders' Right) Act (2002)<sup>45</sup>. Researchers should familiarize themselves with the provisions of these legislations and exploit them whenever handling, seeking protection and marketing intellectual property.

Tanzania is a signatory to a number of global Conventions and

<sup>41</sup> <https://www.cosota.go.tz/wp-content/laws/copyright.pdf>

<sup>42</sup> <https://www.aripo.org/wp-content/uploads/2018/12/MerchandiseMarksAct1994.pdf>

<sup>43</sup> <https://www.aripo.org/wp-content/uploads/2018/12/tradeandmarks1986.pdf>

<sup>44</sup> <https://www.brela.go.tz/uploads/documents/sw-1602601924- THE%20PATENTS%20REGISTRATION%20ACT%20CAP%20217%20R.E%202002.pdf>

<sup>45</sup> [https://www.kilimo.go.tz/uploads/regulations/Plant\\_Breeders\\_Rights\\_Act\\_2012\\_.pdf](https://www.kilimo.go.tz/uploads/regulations/Plant_Breeders_Rights_Act_2012_.pdf)

Treaties that govern the protection and exploitation of intellectual Property. Examples of such treaties and conventions include the Berne Convention (1886)<sup>46</sup> and its subsequent revisions and amendments, Paris Convention (1883)<sup>47</sup> and its subsequent revisions and amendments, Convention for Biological Diversity (1992)<sup>48</sup>, the Trade-Related Aspects of Intellectual Property (TRIPS)<sup>49</sup> and the International Union for Protection of New Plant Varieties (1961)<sup>50</sup>.

## **7.0 ADMINISTRATION OF THE CODE**

The responsibility of monitoring and evaluating compliance to ethical conduct of staff and students undertaking research reside within the Directorate responsible for Research and Publications through mechanisms established under this code, Research Regulations and Guidelines (2019), Research Policy and Strategies (2018)<sup>51</sup>, Anti-Plagiarism Policy (2019), IPR Policy (2020), IPR Guidelines (2022) and other supporting regulations, guidelines and policies as may be determined by the University Senate.

## **8.0 TERMS OF REFERENCE**

### **8.1 Establishment and appointment of Sokoine University of Agriculture Research Ethics Review Committee (SUA-REC)**

For the purpose of administering this code, the Director responsible for Research and Publications shall appoint SUA-REC members who shall be responsible for evaluation of research proposals on ethical aspects. SUA-REC shall consist of diverse members who shall be employees of SUA. The composition of SUA-REC should not only be multi-disciplinary and multi-sectorial

<sup>46</sup> <https://wipolex.wipo.int/en/text/283693>

<sup>47</sup> [https://www.unido.org/sites/default/files/2014-04/Paris\\_Convention\\_0.pdf](https://www.unido.org/sites/default/files/2014-04/Paris_Convention_0.pdf)

<sup>48</sup> <https://www.cbd.int/doc/legal/cbd-en.pdf>

<sup>49</sup> [https://www.wto.org/english/docs\\_e/legal\\_e/27-trips.pdf](https://www.wto.org/english/docs_e/legal_e/27-trips.pdf)

<sup>50</sup> [https://www.upov.int/edocs/pubdocs/en/upov\\_pub\\_221.pdf](https://www.upov.int/edocs/pubdocs/en/upov_pub_221.pdf)

<sup>51</sup> <https://www.dprtc.sua.ac.tz/wp-content/uploads/SUA-Research-Policy-and-Strategy-2019.pdf>

but should also balance scientific expertise (e.g., methodological skills), and gender distribution. The duration for service of the SUA-REC committee shall be three years renewable once.

The Chairperson of SUA-REC shall be an Assistant Director for Directorate responsible for Research and Publications whereas the Secretary shall be an employee of the University appointed from amongst the staff of the Directorate. The Directorate through research regulations and guidelines should clearly document the candidacy requirements, recruitment procedures, duration and terms of service including disqualifications and resignation procedures, re-appointment/renewal and replacement of all members of SUA-REC.

To facilitate smooth operations, the established REC should have 7-10 members. Efforts should be directed to minimize conflicts of interest at selection and managing the ones that may emerge in the future.

## **8.2 SUA-REC Office**

It is recommended that the Directorate responsible for Research and Publications facilitates the establishment of SUA-REC physical office/desk where contacts can be made and for easy access of information and clarification of ethical issues, despite the fact that many communications shall also be electronic. The Secretary shall serve as secretariat for assisting day to day activities of SUA-REC including receiving, documenting applications and documenting and communicating REC decisions.

## **8.3 Day to day Functions of SUA-REC**

For the purpose of administering this code and minimizing bureaucracy, SUA-REC shall:

- i. Prepare and implement standard operation procedures (SOPs) for guiding day to day activities;
- ii. Facilitate the implementation and compliance of the code of conduct for research ethics in all the research activities

- undertaken at the University;
- iii. Comply with national and international regulations and norms as reflected in this proposed code of research ethics;
  - iv. Put a procedure in place, according to acceptable norms and standards, for dealing with appeals; and
  - v. Put mechanisms to conduct capacity building and awareness creation courses for researchers and students.

SUA-REC can engage independent reviewers who are not a member of SUA-REC where applicable to facilitate an objective evaluation. To facilitate this process and to expedite the review process, SUA-REC should determine a standing list of reviewers, with criteria for selection for different type of research applications based on required expertise for different research fields. The established records of integrity in scientific and general conduct in professional matters should be one of the key criteria for recruiting reviewers who shall sign conflict of interest declaration in special forms designed for the purpose.

#### **8.4 SUA-REC Meetings**

SUA-REC shall conduct their meetings as provided in their developed SOPs and announced in institutional media when the meeting dates are approaching. Meetings should be based on institutional arrangements and turnover of proposals to be evaluated. Procedures and fees for lodging requests for expedited reviews shall be set in the relevant SOPs and research regulations and guidelines respectively. The minimum number of SUA-REC meetings shall be four meetings per annum.

For researches considered to be of minimal risk to harm research subjects, a reviewer may be appointed by the Chair of SUA-REC and the review verdict may be communicated to the applicant by the Chair on-behalf of SUA-REC and reports submitted during regular meetings for noting.

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## **9.0 FINANCING ARRANGEMENTS**

The sources of funds to facilitate the implementation of SUA Code of Conduct for Research Ethics, SUA Research Regulations and Guidelines and other related policies dealing with ethical issues in research will be:

- i. A portion of research administrative fee charged to donor funded projects as determined from time to time by SUA;
- ii. A portion of revenue from the commercialization of intellectual property rights (IPR); and
- iii. Application fees charged to researchers when submitting request for ethical evaluation as stipulated in the University research regulations and guidelines.

However, SUA funded research shall not be charged the ethical clearance fees.

## **10.0 IMPLEMENTATION**

This Code of Conduct for Research Ethics shall be implemented in harmony with the University Acts (2005) and shall also observe University Financial Regulations. Cognizant of the fact that Tanzania is a signatory to a number of International Conventions and Treaties influencing the global research ethics issues, provisions in the government guidelines and regulations shall take precedence upon events of conflicting interpretations. The experience above notwithstanding, any event that exceptional circumstances require any exception to the terms of this Code of Conduct; such exceptions shall require the written consent of the Chairman of Senate.

For further information contact:  
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