



SCIENTIFIC WRITING TRAINING



Research Ethics, policies and guidelines



Michael Otim, PhD

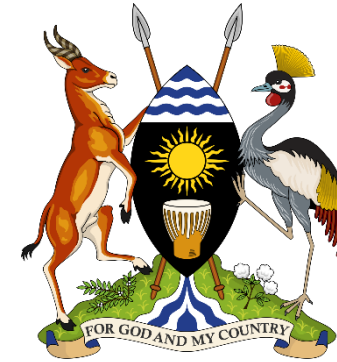
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ETHICS, POLICIES AND GUIDELINES

SCIENTIFIC TRAINING SEMINAR

JUNE 18TH JUNE 2026

Dr. MICHAEL HILLARY OTIM
NARO/NaCRRI

MICHAEL HILARY OTIM

NARO

Senior Principal Research Officer

1. Fellow, Uganda Academy of Sciences
2. Chair, NARO Institutional Biosafety Committee
3. Associate Editor, UJAS
4. Subject Editor, Bulletin of Entomological Research
5. Guest Editor, Frontiers in Insect Science
6. Reviewer (>20 journals)
7. Member, Agricultural Chemicals Review Committee
8. Examiner, Graduate students' theses
9. Student supervision: Completed - 5 PhDs and 12 MSc; ongoing – 5 PhD and 6 MSc
10. Publications: Peer reviewed articles (63), Book Chapters (03), Books, Manuals, extension materials
11. Resource Mobilization > USD 5 Million attracted to NARO
12. Collaborators drawn from Europe, USA, South America, Australia, and Asia

PRESENTATION OVERVIEW

NAKURU

01

What is and why Ethics?

Stakes, context, and East Africa's landscape

02

Core Principles of Ethics

The values that guide responsible research

03

Ethics in Agriculture

Technology development, farmer engagement and technology transfer

04

Malpractices & Case Studies

Real examples of ethical failures

05

Consequences of Malpractice

Institutional, legal, and societal impacts

06

Building an Ethical Culture

Frameworks, tools, and commitments

ETHICS AND ETHICAL CODE

NAAC

Ethics System of moral principles, determining what is right, wrong, good or bad

In agriculture, ethics involves the application of moral rules and professional codes of conduct in the conception, design, conduct, analysis, reporting and publication of information, as well as testing and promotion of the innovations, among others.

Code of ethics (about why should we act this way/what is right) - Statement of principals and values that guide decisions.

Code of conduct (what behaviour is allowed or forbidden) - Specific rules about acceptable and unacceptable behavior for members of a profession, an organization, or business, etc.

Code of practice (How should we do the task) – Specifies technical standards and procedures for doing the work correctly and safely.

Code of ethics, code of conduct and code of practice should work together.

WHY ETHICS MATTERS IN AGRICULTURAL RESEARCH

70%+

of East Africans depend on smallholder farming for livelihoods

500M+

smallholder farmers globally affected by agricultural research decisions

60%

of sub-Saharan African research funding comes from external donors — raising accountability questions

We therefore need to conduct ethical research to:

1. Promote the aims of the research
2. Promote values that are essential for sustainable collaboration
3. Ensure accountability to the public so that they can accept the research and research products
4. Promote social responsibility, animal welfare, compliance with the law, health and safety

Failure to observe/conduct ethical research may lead to various consequences

CORE ETHICAL PRINCIPLES IN AGRICULTURAL RESEARCH



Respect for Persons

Uphold dignity, autonomy, and rights of all participants. Obtain free, prior, and informed consent — in local languages. Ensure confidentiality of participants and business information (non disclosure agreement, where required)



Beneficence

Research must produce genuine benefits.

Maximise positive outcomes for communities while minimising risk and harm.



Non-Maleficence

Do no harm to participants, communities, livelihoods, or ecosystems. Assess all potential negative consequences before proceeding.

In animal research, satisfy the three Rs: Replacement, reduction and Refinement



Justice & Equity

Distribute benefits and burdens fairly. Include marginalised groups — women, youth, pastoralists — in research and benefits.



Transparency

Disclose research objectives, methods, funding sources, and potential conflicts of interest to participants and the public.

Note: There may be request to protect information for patent related issues (**Confidential business information**)



Accountability

Researchers are answerable to communities, institutions, and scientific peers. Accept responsibility for outcomes.



Environmental Stewardship

Protect biodiversity, soils, water, and agroecosystems. Research must not degrade the natural base of farming communities.



Intellectual Honesty

Report results truthfully — including negative findings. Avoid selective reporting, data cherry-picking, or sponsor-biased conclusions.

VALUES IN AGRICULTURAL EXTENSION PRACTICE

NAIROBI

Extension services bridge research and farming communities — ethical values must guide every interaction.

Farmer-Centred Approach

Extension agents exist to serve farmers, not institutional targets. Recommendations must respond to farmers' actual needs, resources, and knowledge systems — not just disseminate top-down packages.

Truthfulness in Technology Transfer

Exaggerating yield benefits, concealing crop failures, or suppressing negative trial results to promote a technology is a serious ethical violation that can cause real harm to adopting farmers.

Respect for Indigenous Knowledge

Farmers possess rich, context-specific knowledge built over generations. Ethical extension validates, incorporates, and does not trivialise traditional ecological knowledge (TEK).

Non-Discriminatory Service Delivery

Extension services must reach women, young farmers, and resource-poor households equally. Systemic bias in who receives advice or inputs is an ethical failure with productivity consequences.

Conflict of Interest Disclosure

Extension agents must declare any financial ties to seed companies, input suppliers, or NGO programmes when making recommendations. Undisclosed commercial relationships corrupt advisory integrity.

Feedback and Accountability Upward

Extension workers have an obligation to report failures, community concerns, and unintended consequences back to research institutions — not just report positive adoption rates.

MALPRACTICES IN AGRICULTURAL RESEARCH & EXTENSION

NAIROBI

1

Fabrication & Falsification

Inventing or manipulating field data, yield measurements, or lab results. Found in both crop science publications and NGO project reports across the region.

2

Plagiarism

Presenting another researcher's findings, including traditional farmer knowledge, as one's own without attribution.

3

Undisclosed Conflicts of Interest

Researchers receiving payments from agro-input companies without declaring this when publishing trials of those companies' products.

4

Lack of Informed Consent

Enrolling farmers in trials without adequate explanation of risks; using farmer knowledge in publications without acknowledgement or permission.

5

Selective Reporting (Publication Bias)

Publishing only positive results while suppressing failed trials — distorting the evidence base used by extension and policymakers.

6

Exploitation of Participants

Collecting biological samples, seeds, or soil data from communities without benefit sharing, then commercialising findings externally.

7

Ghost & Gift Authorship

Listing funders, supervisors, or politicians as authors who made no scientific contribution; or excluding field researchers who did the work.

8

Extension Agent Bribery

Accepting payments or goods from input companies to promote certain products to farmers regardless of suitability or efficacy.

CONSEQUENCES OF ETHICAL MALPRACTICE



Scientific & Institutional

1. Retraction of publications
2. Loss of research funding and grants
3. Mandatory audits
4. Institutional sanctions (loss of operating licenses)
5. Exclusion from international collaborations
6. Delegitimisation of entire research programmes



Legal & Regulatory

1. Criminal prosecution for fraud in some jurisdictions
2. Civil liability for harm caused to farmers
3. Violations of Nagoya Protocol — international legal exposure
4. Loss of institutional research licences
5. Deregistration of research projects



Community & Social

1. Breakdown of trust between researchers and farming communities
2. Community refusal to participate in future research
3. Harm to farmer livelihoods from flawed technologies
4. Reinforcement of colonial research stereotypes
5. Erosion of social capital built over decades



Personal & Career

1. Permanent damage to professional reputation
2. Dismissal from academic or government posts
3. Withdrawal of academic degrees (for thesis misconduct)
4. Prohibition from publishing in major journals
5. Blacklisting from peer review and editorial roles
6. Mental health consequences and professional isolation

CASE STUDIES: CONSEQUENCE - RETRACTION

NAKU

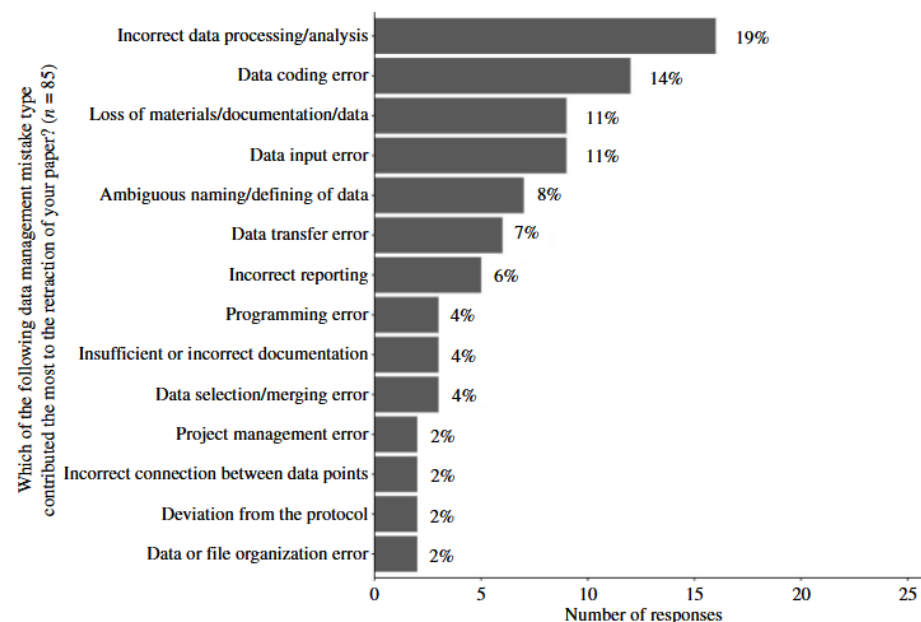


Figure 2. The frequency and percentages of the RDM error types that led to the retraction of the paper. After excluding the missing and irrelevant responses, 85 responses remained in our sample.

6

royalsocietypublishing.org/journal/rsos R. Soc. Open Sci. 11: 240844

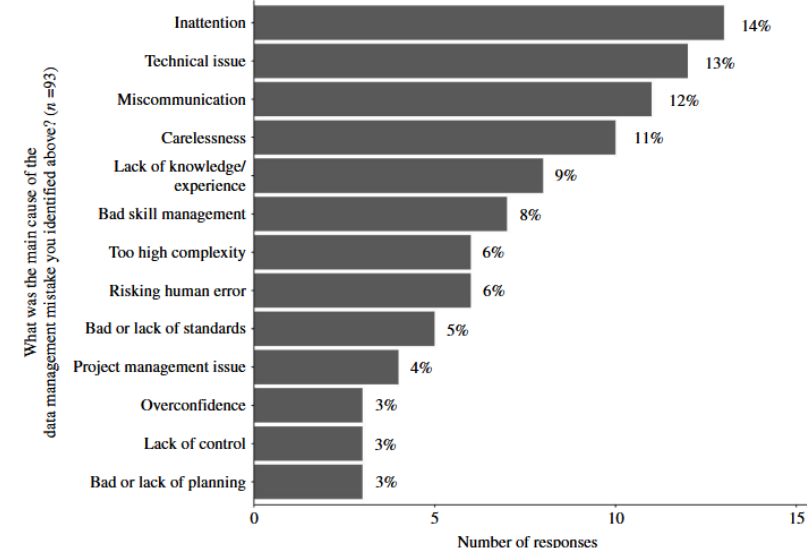


Figure 3. The frequency and percentages of causes that led to the retraction of the paper. After excluding the missing and irrelevant responses, 93 responses remained in our sample.

Marton Kovacs, Marton A. Varga, Dominik Dianovics, Russell A. Poldrack, Balazs Aczel; Opening the black box of article retractions: exploring the causes and consequences of data management errors. *R Soc Open Sci.* 1 December 2024; 11 (12): 240844. <https://doi.org/10.1098/>. N = 36,773

CASE STUDIES: CONSEQUENCE - RETRACTION

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Research Article

International Journal of Teaching and Learning Sciences

Ethical Concerns in University Research in Uganda

By Dr. Gladys Muhama*

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Citation: Muhama G (2026) Ethical Concerns in University Research in Uganda. *Int J Teach Learn Sci-IJTLS*: e146.

Received Date: 18 March, 2026; Accepted Date: 31 March, 2026; Published Date: 06 April, 2026

Abstract

This study explores the degree to which researchers in Ugandan universities adhere to research ethics. Existing literature is mainly on research policies, procedures, directives, and guidelines with little empirical data on the adherence of researchers including university based ones to the general principles of research ethics. The study adopted a multiple case study design to explore ethical and integrity research issues in Ugandan private and public universities. More specifically, the study sought to explore how Ugandan universities have ensured ethical issues among the researchers at all levels of research activities. The researcher interviewed 25 respondents including 5 heads of research centers, 10 research supervisors and 10 research students from five (5) private and public universities in Uganda who had participated in research works and or clearance of researchers. The research questions and discussions aimed to broadly explore ethical issues and the strengths and weaknesses of universities in ensuring ethics in scientific research activities. The study established the existence of ethical challenges regarding methodological transparency and responsibility as well as integrity and honesty on the part of researchers, supervisors, and research students in research activities. The study discusses the positive and negative aspects of research ethics and the policy and managerial implications of enforcing research ethics and integrity to protect university researchers and research participants. The paper proposes that universities need to enforce research ethics by paying attention to harmful practices that negatively impact the research process and outcomes and ultimately damage the image of universities as centres of research.

Keywords: Research ethics and integrity, research ethical dilemmas, Ugandan universities.

1. Introduction and background

Agwor and Osho, (2017) [1] and Ezigbo, (2009) [2] view ethics

during the research journey. Scholars such as [5,6,7] note that whether a given research project is qualitative, quantitative, or

Findings

1. Contravention of the ethical principle of beneficence
2. Concealment and misrepresentation of research purposes for personal interests
3. Supervisors forcing students to change their research topics to suit their own interests.
4. Failure of acknowledge authors whose ideas they have used
5. Self-plagiarism - recycling one's own work without acknowledgment
6. Fabrication of data
7. Failure to ensure the anonymity and confidentiality of respondents
8. Supervisors using other people's to produce independent publications
9. Gift authorship and ghost authorship
10. Granting of ethical clearance in exchange for financial rewards or on the basis of personal relationships.
11. Laxity and a lack of robust monitoring mechanisms

CASE STUDIES: CASE STUDIES: CONSEQUENCE - RETRACTION

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Issue

Post-publication investigation conducted by Elsevier's Research Integrity & Publishing Ethics team

Identified **references** that are **irrelevant** to the article.

When asked, the authors were unable to satisfactorily address the reason for the references.

Additionally, the investigation **could not confirm whether or not ethical approval** was given for the research presented in this publication in line with the journal's policy.

Consequently, the editor no longer has confidence in the integrity and the findings of the article and has decided to retract it. The scientific community takes a very strong view on this matter and apologies are offered to readers of the journal that this was not detected during the submission process.

Consequence

The screenshot shows a web browser window with multiple tabs. The active tab is titled "RETRACTED: Smallholder farmers' participation in small-scale irrigation system: Insight from Lume district, Ethiopia". The address bar shows the URL: www.sciencedirect.com/science/article/pii/S2405844024156691. The page header includes navigation links: Journals & Books, Help, Search, My account, and Sign in. The main content area features the journal logo "Heliyon" and the article title "RETRACTED: Smallholder farmers' participation in small-scale irrigation system: Insight from Lume district, Ethiopia". Below the title, the authors "Dirriba Idahe" and "Zenebe Solomon" are listed. The page also includes a "View PDF" button, a "Download full issue" link, and a "Show more" dropdown. A "Referred to by" section at the bottom mentions a "Retraction notice to 'Smallholder farmers' participation in small-scale irrigation system: Insight from Lume district, Ethiopia' [Heliyon 10...". The right sidebar contains a "CellPress" logo, a "Part of special issue" section for "Agriculture", and a "Recommended articles" section with the text "No articles found.".

CASE STUDIES: CONSEQUENCE - RETRACTION

NAKU

Issues

1. Non-compliance with the Authorship policy
2. The **data sources and specific datasets** used in this study are **not described in sufficient detail** to ascertain how the results or conclusions were derived, or allow others to reproduce the study.
3. Numerous statements in the Introduction are not supported by data or by published and cited work.
4. Errors in 4 references, **inability to verify references**. 24 of the 56 works cited were **published at least 10 years** before the article was published
5. **Inability to resolve specific issues** about the dataset or references by the deadline provided.

Consequence: Retraction

The screenshot displays a web browser window with the PLOS One website. The article title is "Retraction: The impact of agricultural insurance on farmers' income: Guangdong Province (China) as an example". The page features a prominent red "RETRACTION" banner. On the right, statistics show 0 saves, 0 citations, 585 views, and 0 shares. A "Download PDF" button is visible. The main text area contains a detailed retraction notice explaining the reasons for the retraction, including concerns about authorship policy, insufficient detail in data sources, unsupported statements in the introduction, errors in references, and outdated references. The notice also mentions that the corresponding author stated some references are outdated and no longer available to the public.

Retraction: The impact of agricultural insurance on farmers' income: Guangdong Province (China) as an example

The PLOS One Editors

Published: July 2, 2025 • <https://doi.org/10.1371/journal.pone.0327331>

Article Metrics Comments Media Coverage

Reference

Reader Comments

After this article [1] was published, PLOS noted concerns about compliance with the Authorship policy and about the following reporting and reference issues:

- The data sources and specific datasets used in this study are not described in sufficient detail to ascertain how the results or conclusions were derived, or allow others to reproduce the study.
- Numerous statements in the Introduction are not supported by data or by published and cited work.
- We identified errors in 4 references (7, 13, 18, 23) and have been unable to verify 23 references (1, 2, 3, 19, 21, 28–38, 40, 44, 45–48, 55). Also, 24 of the 56 works cited were published at least 10 years before [1] was submitted.
- The article cited as Reference 56 was retracted after [1] was published.

The corresponding author stated that some references are outdated, no longer available to the public, or were translated from Chinese. They were unable to provide specific information about the dataset or references by the deadline provided.

RETRACTION pertains to
The impact of agricultural insurance on farmers' income: Guangdong Province (China) as an example
[View Page](#) [PDF](#)

Related PLOS Articles

[View PDF](#)

37°C Mostly sunny 11:29 15/06/2026

CASE STUDIES: PLAGIARISM IN ACADEMIC WRITING

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<https://doi.org/10.52642/susbed.1854933>

Selçuk Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 2026; (59): 284-300
- Araştırma Makalesi / Research Article -

Plagiarism as a Form of Academic Dishonesty: A Study on PhD Dissertations in the Department of Communication Sciences

Erkam TEMİR* 

ABSTRACT

This study examines plagiarism trends in PhD dissertations completed in the Department of Communication Sciences at universities in Turkey between 2020 and 2024. Despite the central role of academic integrity in the process of scientific production, plagiarism persists as a critical ethical issue. In this research, PhD dissertations (n=125) were screened using similarity detection software (iThenticate) and subsequently evaluated through academic reasoning and contextual analysis. The findings reveal that plagiarism was detected in 47.20% (n=59) of the examined dissertations. Regarding the distribution by year, the incidence of plagiarism was observed in 2020 at 62.50% (n=10), while this rate was recorded as 38.46% (n=15) in 2024. The most striking finding of the study is that 86.44% (n=51) of the detected violations were classified as “citation manipulation.” This indicates that candidates cited primary sources directly, despite effectively utilizing the sentence structures and intellectual labor of secondary sources. Consequently, plagiarism has evolved into a pervasive phenomenon involving the invisible exploitation of intellectual labor. In light of these findings, it is concluded that plagiarism is exacerbated by supervisory deficiencies and that the solution lies in merit based structural reforms.

Keywords: Plagiarism, Academic Integrity, Citation Manipulation, Plagiarism Detection, Plagiarism Rate, Similarity Rate, PhD Dissertations, Communication Sciences.

N = 125

Plagiarism was detected in 47.20% (n=59) of the examined dissertations.

The most striking finding - 86.44% (n=51) of the detected violations were classified as “citation manipulation.” This indicates that candidates cited primary sources directly, despite effectively utilizing the sentence structures and intellectual labor of secondary sources.

....., it is concluded that **plagiarism is exacerbated by supervisory deficiencies** and that the solution lies in merit based structural reforms.

CASE STUDIES: PEER REVIEW SCANDAL

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<https://revistapesquisa.fapesp.br/en/use-of-fake-email-addresses-leads-to-retraction-of-45-articles-by-brazilian-scientists/>

[Use of fake email addresses leads to retraction of 45 articles by Brazilian scientists](#)

- Peer review was compromised: three reviewers suggested by the authors were not who they appeared to be

<https://www.science.org/content/article/it-felt-very-icky-scientist-s-name-was-used-write-fake-peer-reviews>

A scientist's name was used to write fake peer reviews

Elsevier retracted [22 papers in STOTEN](#).

The retraction notices, all say Elsevier's Research Integrity & Publishing Ethics team determined that one or more of the reviews for each paper were "fictitious," written under the name of known scientists without their knowledge

22 of the *STOTEN* retraction notices say the reviewers' names and fictitious contact details had been submitted by ecotoxicologist Guilherme Malafaia of the Goiano Federal Institute in Brazil, who was a corresponding author on 21 of the papers and a co-author on one

CASE STUDIES: CONSEQUENCE - RETRACTION

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BioMed Research International

► Biomed Res Int. 2026 Apr 3;2026:9878701. doi: [10.1155/bmri/9878701](https://doi.org/10.1155/bmri/9878701)

RETRACTION: Evaluation of Genetic Variations in Maize Seedlings Exposed to Electric Field Based on Protein and DNA Markers

[BioMed Research International](#)

► Article notes ► Copyright and License information

PMCID: PMC13051791 PMID: [41930752](https://pubmed.ncbi.nlm.nih.gov/41930752/)

This retracts the article "[Evaluation of Genetic Variations in Maize Seedlings Exposed to Electric Field Based on Protein and DNA Markers](#)" in volume 2015, 874906.

PDF (2/5.4 KB)

Cite

Collections

Permalink

RESOURCES

Similar articles

Cited by other articles

Links to NCBI Databases

RETRACTION: A. A. AL-Huqail and E. Abdelhaliem, "Evaluation of Genetic Variations in Maize Seedlings Exposed to Electric Field Based on Protein and DNA Markers," *BioMed Research International* 2015, (2015): 874906; <https://doi.org/10.1155/2015/874906>.

The above article, published online on 24 June 2015 in Wiley Online Library (<http://wileyonlinelibrary.com>), has been retracted by agreement between the Editorial Board and John Wiley & Sons Ltd.

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A third party reported that images of comet assays in Figure 4 showed evidence of manipulation.

An investigation by the publisher found evidence of image manipulation in Figure 4 as well as evidence of duplicated bands in Figure 1, Figure 2, and Figure 3.

The authors did not respond to an inquiry and request for original data by the publisher.

CASE STUDIES: CONSEQUENCE - RETRACTION

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BUILDING AN ETHICAL CULTURE IN RESEARCH & EXTENSION

1

Ethics Review Boards

Every institution conducting agricultural research should have a functioning IRB/ethics committee with community representation, not just scientists.

2

Mandatory Training

All researchers and extension officers should complete accredited ethics training covering consent, data handling, conflicts of interest, and community engagement.

3

Transparent Reporting Systems

Pre-registration of trials, open data policies, and mandatory disclosure of funding sources. Negative results must be published.

4

Whistleblower Protections

Institutions must establish safe, protected channels for reporting misconduct without fear of retaliation — especially important in hierarchical research cultures.

5

Community Ethics Agreements

Multi-year research partnerships should include formal benefit-sharing and community veto rights in signed memoranda of understanding.

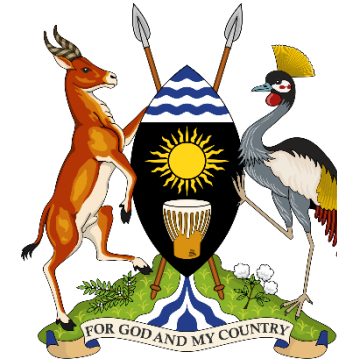
6

Mentorship & Role Modelling

Senior researchers and extension supervisors model ethical behaviour. Leadership shapes culture — misconduct at senior levels is particularly damaging.

It Is the Commitment That Makes Research Worth Doing.

1. Respect every farmer as a partner, not a data point
2. Report honestly — including failure
3. Share benefits with the communities that make research possible
4. Declare every conflict of interest
5. Mentor the next generation in ethical practice



COMPLIANCE WITH RESEARCH, EXTENSION & PUBLICATION POLICIES

SCIENTIFIC TRAINING SEMINAR

SEPTEMBER 18TH JUNE 2026

Dr. MICHAEL HILLARY OTIM
NARO/NaCRRI

WHAT WE WILL COVER

NAKO

01

Why Compliance Matters

The cost of non-compliance; institutional and personal stakes

02

Research Compliance Framework

Ethics approval, biosafety, data governance, consent

03

Extension Policy Compliance

National standards, technology dissemination protocols

04

Publication Policies & Standards

Authorship, peer review, open access, data sharing

05

Intellectual Property & Benefit Sharing

Nagoya Protocol, plant variety rights, patents

06

Non-Compliance: Consequences & Cases

What happens when policies are violated

07

Compliance Tools & Checklists

Practical frameworks for researchers and extension officers

WHY COMPLIANCE MATTERS

NAKO

Compliance is not about paperwork. It is about maintaining the integrity, credibility, and social licence of agricultural research.



Protects Research Integrity

Policies and standards exist because past science failed communities. Compliance safeguards the quality and reproducibility of findings.



Protects Participants

Research and extension participants — farmers, communities, animals — are protected from harm by ethics and regulatory compliance requirements.



Maintains International Standing

Research institutions in Uganda and East Africa that comply with international standards can participate in global collaborations, funding, and publishing.



Avoids Legal Liability

Non-compliance with biosafety, consent, or IP laws carries criminal and civil liability. Institutions can face closure; individuals face prosecution.



Sustains Funding

Donor agencies — conduct compliance audits. Non-compliance leads to immediate grant termination and blacklisting.



Builds Public Trust

Communities, governments, and media watch how research institutions behave. Compliance signals respect for public interest over institutional convenience.

RESEARCH COMPLIANCE FRAMEWORK

Ethics Approval (UNCST / Institutional IRB)

1. All research involving human participants, animals, or environmental manipulation requires prior ethics clearance
2. Submit: protocol, consent forms, data management plan, community engagement plan
3. UNCST issues National Clearance; institutional IRBs issue local approval — both may be required
4. Amendment approval required for any protocol changes mid-study

Data Governance & FAIR Principles

1. Data must be: Findable, Accessible, Interoperable, and Reusable (FAIR)
2. Research data management plans required by most international funders
3. Community-generated data requires community consent for secondary use
4. Retention periods: typically 5–10 years post-publication

Biosafety & Environmental Compliance

1. National Biosafety Committee (NBC) approval required for all GM organism trials
2. National Environment Act (NEMA) environmental impact assessments for large-scale field work
3. Contained use, field trials, and commercial release have separate approval tracks
4. Mandatory monitoring and incident reporting during approved trials

Informed Consent Requirements

1. Written consent for individual participants; community consent for village-level trials
2. Consent must be translated in local language and use plain, accessible explanation
3. Right to withdraw without penalty must be clearly stated
4. Minors and vulnerable populations require additional protections

RESEARCH CLEARANCE FOR CONFINED FIELD TRIALS INVOLVING GENETICALLY MODIFIED PLANTS

NAIRO

1. Access approved application form
2. Submit application to the Institutional Biosafety Committee (IBC) for review (back and forth interaction) for completeness, feasibility and availability of facilities to ensure compliance.
3. Upon satisfaction, the IBC recommends the application for submission to UNCST
4. Submit the application with the IBC recommendation to the UNCST with a copy to the IBC Chairperson.
5. NBC secretariat at UNCST communicates directly with the application to request clarification, or convey acceptance/rejection
6. Pay required fees and get a research clearance certificate

Take note and comply with the terms and conditions of approval and detailed provisions in the relevant guidelines

RESEARCH CLEARANCE FOR USING ANIMALS IN RESEARCH AND TRAINING

NAAC

Acquaint yourself with the relevant laws, regulations or guidelines for ethical and legal compliance

1. Animals (Prevention of Cruelty) Act 1957 (Cap 39), Sections (11) and (12) that provides for conditions and restrictions for experiments on living animals
2. Clearance from relevant MDAs and IACUC
3. Submission of genetic material for evaluation and future reference
4. Submit approved protocol to UNCST for final clearance and research permit issues

EXTENSION POLICY COMPLIANCE

NAADS

Uganda's Extension Regulatory Framework

National Agricultural Advisory Services Act (NAADS)

Governs public extension delivery. Extension workers must adhere to NAADS service delivery standards, reporting formats, and farmer group protocols.

Agro-Input Dealer Licensing

Only licensed agro-dealers may recommend and supply certified seeds, fertilisers, and pesticides. Extension agents must not promote unlicensed inputs.

Plant Protection & Health Act

Extension workers are legally required to report notifiable pests and diseases to the Ministry of Agriculture; failure to report is a violation.

MAAIF Technology Dissemination Guidelines

Technologies must pass national variety release and performance trials before extension can disseminate them as recommended practices.

Extension Compliance: Do's & Don'ts

✓ REQUIRED

Follow national extension methodology protocols

Use only approved, released varieties for demonstration

Declare commercial relationships with input suppliers

Submit accurate beneficiary data and outcomes reports

Obtain community consent before establishing demo plots

✗ PROHIBITED

Promote trial varieties as 'recommended' before release

Accept gifts from input companies to push their products

Falsify farmer group sizes or training attendance records

Use extension platforms for personal commercial activities

Share confidential farmer data with third parties

PUBLICATION POLICIES & STANDARDS



Authorship Standards (ICMJE Criteria)

1. All authors must meet ALL four ICMJE criteria: substantial contribution to conception/design or data, drafting or critically revising the manuscript, approving the final version, and accountability for the work
2. Gift authorship (listing non-contributors) and ghost authorship (excluding real contributors) are serious violations
3. Order of authorship must reflect actual contribution — establish this agreement before submission
4. Field research assistants and community partners deserve acknowledgement at minimum



Open Access & Data Sharing

1. Many funders now mandate open access publication (CGIAR, Wellcome, Gates Foundation)
2. Research data underlying publications should be deposited in accessible repositories (CIMMYT DSPACE, Harvard Dataverse, Zenodo)
3. Data sharing agreements must specify permitted uses and protect participant confidentiality
4. Pre-registration of studies in public registries (OSF, ClinicalTrials.gov) reduces publication bias



Peer Review Integrity

1. Reviewers must declare conflicts of interest with the authors or subject matter before accepting
2. Confidentiality of peer review must be maintained — do not share manuscripts with others
3. Authors must respond honestly to all reviewer comments; do not selectively ignore valid critiques
4. Simultaneous submission to multiple journals is prohibited without prior agreement



Reporting Standards

1. CONSORT for randomised trials; STROBE for observational studies; ARRIVE for animal research
2. Complete reporting of methodology enables replication — selective omission is a compliance failure
3. Statistical significance must not be the sole criterion for reporting results
4. All funding sources, conflicts of interest, and data availability must be declared

INTELLECTUAL PROPERTY & BENEFIT SHARING COMPLIANCE

Nagoya Protocol (CBD)

International
Treaty

Uganda ratified in 2016. Any researcher accessing genetic resources (seeds, soil microbiomes, medicinal plants) must obtain Prior Informed Consent (PIC) and agree Mutually Agreed Terms (MAT) with the providing country or community. Failure is an international treaty violation.

Plant Variety Protection (PVP)

National Law

Under UPOV framework, breeders can register new plant varieties. Researchers must check existing PVP registrations before publishing or commercialising new varieties. Farmers' rights to save, use, and exchange seed must be respected.

University/Institutional IP Policy

Institutional
Policy

Most universities claim ownership of IP developed using institutional resources. Researchers must disclose inventions to technology transfer offices before publication. Commercialisation revenue should be shared per institutional policy.

CGIAR Open Access & IP Policy

Funder Policy

CGIAR centres operate under open access and anti-patenting principles for key food security crops. Research outputs developed with CGIAR support must comply with these policies, which include obligations to developing country partners.

Traditional Knowledge & Community IP

Emerging
Framework

African Model Legislation on plant variety protection recognises community rights. Documentation of indigenous agricultural knowledge requires community consent and may not be commercialised without benefit-sharing agreement.

Material Transfer Agreements (MTAs)

Contractual

Transfer of biological materials (seeds, soil samples, plant tissue) between institutions requires an MTA. Using materials beyond the terms of an MTA — including publishing genomic data — is a compliance violation.

NON-COMPLIANCE: CONSEQUENCES



Institutional

- Loss of operating licences
- Suspension of all active research grants
- Mandatory external audit
- Reputational damage reducing future funding competitiveness



Legal

- Criminal prosecution (fraud, IP theft)
- Civil liability and damages
- Treaty violations (Nagoya Protocol)
- Injunctions halting research or publications



Personal

- Dismissal from post
- Degree revocation
- Permanent blacklist from research roles
- Prohibition from publishing in major journals

COMPLIANCE TOOLS & PRACTICAL CHECKLISTS

PRE-RESEARCH COMPLIANCE CHECKLIST

- ☐ UNCST ethics clearance obtained
- ☐ Institutional IRB approval in place
- ☐ NBC clearance (if GM organisms involved)
- ☐ NEMA environmental clearance (if required)
- ☐ Informed consent forms developed & translated
- ☐ Material Transfer Agreements signed
- ☐ Community engagement plan completed
- ☐ Conflict of interest declarations filed
- ☐ Funder IP and data sharing requirements reviewed
- ☐ Study pre-registered on open registry

PRE-SUBMISSION PUBLICATION CHECKLIST

- ☐ All authors meet ICMJE authorship criteria
- ☐ All conflicts of interest declared
- ☐ Funding sources fully disclosed
- ☐ Data availability statement included
- ☐ Data deposited in accessible repository
- ☐ Reporting standard checklist completed (CONSORT/STROBE)
- ☐ Participant consent covers publication
- ☐ IP clearance from institution obtained
- ☐ Not submitted simultaneously to another journal
- ☐ Statistical analysis independently verified

KEY POLICIES, GUIDELINES & STANDARDS: QUICK REFERENCE

Uganda National	East Africa / AU	International	Publication Standards
UNCST Research Ethics Guidelines	AU Model Biosafety Law	Nagoya Protocol (CBD)	International Committee of Medical Journal Editors (ICMJE) Authorship Guidelines)
National Biosafety Act 2017	EAC Biotechnology & Biosafety Policy	UPOV Convention (Plant Varieties)	Committee on Publication Ethics (COPE) Publication Ethics
NAADS Act (Extension)	African Regional Intellectual Property Regional Office Plant Variety Protection Protocol	Belmont Report (Research Ethics)	Consolidated Standards of Reporting Trials (COPE) Animal Research: Reporting of In Vivo Experiments
National Environment Act (NEMA)	African Model Law — Community Rights	Helsinki Declaration (Human Research)	Findable, Accessible, Interoperable, and Reusable (FAIR Data Principles)
Plant Protection & Health Act		CGIAR Open Access & IP Policy	EQUATOR Network Reporting Standards

It Is the Floor.

Meeting policy requirements is the minimum standard. The goal is science that is rigorous, honest, equitable, and genuinely beneficial to the communities and ecosystems of East Africa.

1. Know the policies that govern your work before you start
2. Build compliance into project design — not as an afterthought
3. Report concerns early — before they become violations
4. Mentor colleagues and students in the spirit, not just the letter, of compliance