Promoting Responsible Conduct of Research in Uganda and the Region: Best practices and the Impact of Research

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Presentation Outline

- Sources of wisdom
- Best practices in Uganda and the region
- Evidence from elsewhere
- Recommendations

Main Source documents

- Erisa S Mwaka: **Responsible conduct of research: enhancing local opportunities. Afr H Sc 2017**

- Uganda UNCST **guidelines and local practice**

- Tanzania: **Tanzania Commission for Science and Technology**

- South Africa: **Theresa M. Rossouw, Christa van Zyl, Anne Pope. Responsible conduct of research: Global trends, local opportunities SAJ Science 2014**

- USA: **Nicholas H. Steneck. Fostering Integrity in Research: Definitions, Current Knowledge, and Future Directions University of Michigan, Ann Arbor, Michigan, USA. Science and Engineering Ethics (2006) 12, 53-74**

- US NAS: **Integrity in Scientific Research: Creating an Environment That Promotes Responsible Conduct (2002)**

- Global: **The Singapore Statement 21-24 July 2010**

RCR

"Rather fail with honor than succeed by fraud." **Sophocles**

"Most people say that it is the intellect which makes a great scientist. They are wrong: it is character." **Albert Einstein**

Messages from my talk

- Stronger government support and stewardship

- The **institutions' commitment** to create environment that promotes RCR (excellence, trustworthiness, and lawfulness and M&E to ensure movement in the right direction)

- Use many practices to promote RCR and create a research culture in which high ethical standards are the norm; encouraging ongoing professional development

- Preservation of public confidence in the scientific enterprise is key

- Look beyond Uganda and have open minds

What is Responsible conduct of research (RCR)

- Need for a common or shared understanding of what is RCR
- Ethics, Research integrity, RCR, Scientific rigor and reproducibility....

Current Framework for Defining Research Behaviours
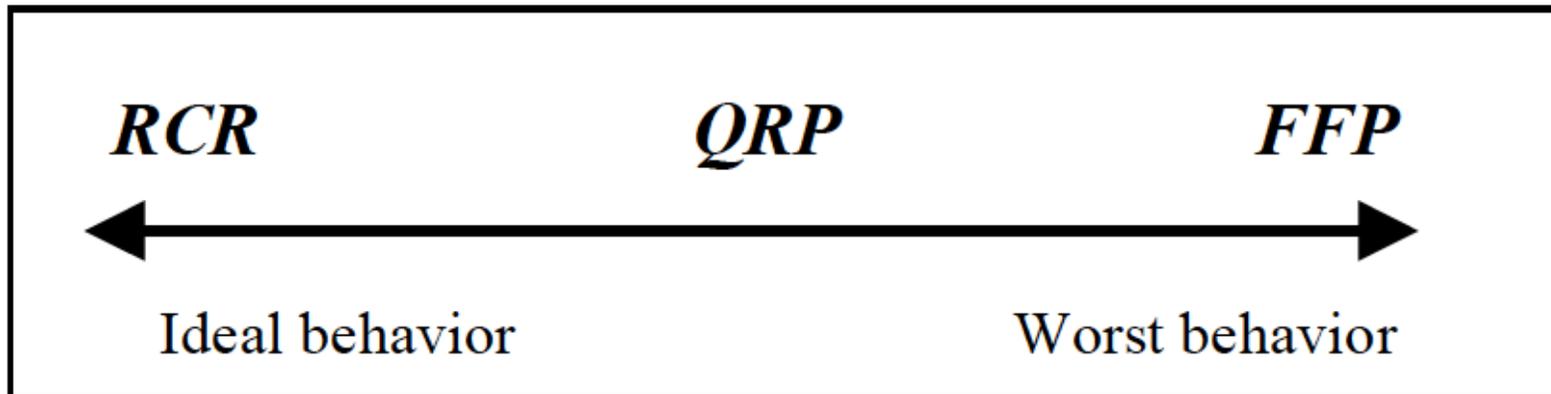
Research and the public

- Research takes place in society with public support and resources
- The research enterprise has social responsibilities
  - ➤ To show accountability to society
  - ➤ To conduct useful research
  - ➤ To educate the public about research/science and its social implications
  - ➤ To provide expert testimony and advice on scientific issues
  - ➤ To engage in policy debates on application/implications of research/science
  - ➤ To use resources responsibly
  - ➤ etc etc

Research in context: In summary

- Research takes place in a social context (Economic, political, interests, social cultural and religious values influence scientific goals, resources ad practices)
- Money plays a critical role: which problem is studied, who studies it, how it is studied, whether it is disseminated/published and when

Promoting Responsible Conduct:
Whose role to take care of the scientific enterprise?

- All of us and stake holders
  - ➢Researchers and research teams
  - ➢Research Institutions
  - ➢Research mangers and administrators
  - ➢Students/Trainees because they are our future
  - ➢Professional societies
  - ➢National Government and its agencies
  - ➢Funders
  - ➢Publication Industry
  - ➢The public

The Singapore Statement 21-24 July 2010

Preamble

"The value and benefits of research are vitally dependent on the integrity of research. While there can be and are national and disciplinary differences in the way research is organized and conducted, there are also principles and professional responsibilities that are fundamental to the integrity of research wherever it is Undertaken".

Principles

➢ *Honesty* in all aspects of research,
➢ *Accountability* in the conduct of research
➢ *Professional courtesy and fairness* in working with others
➢ *Good stewardship* of research on behalf of others

!4 responsibilities

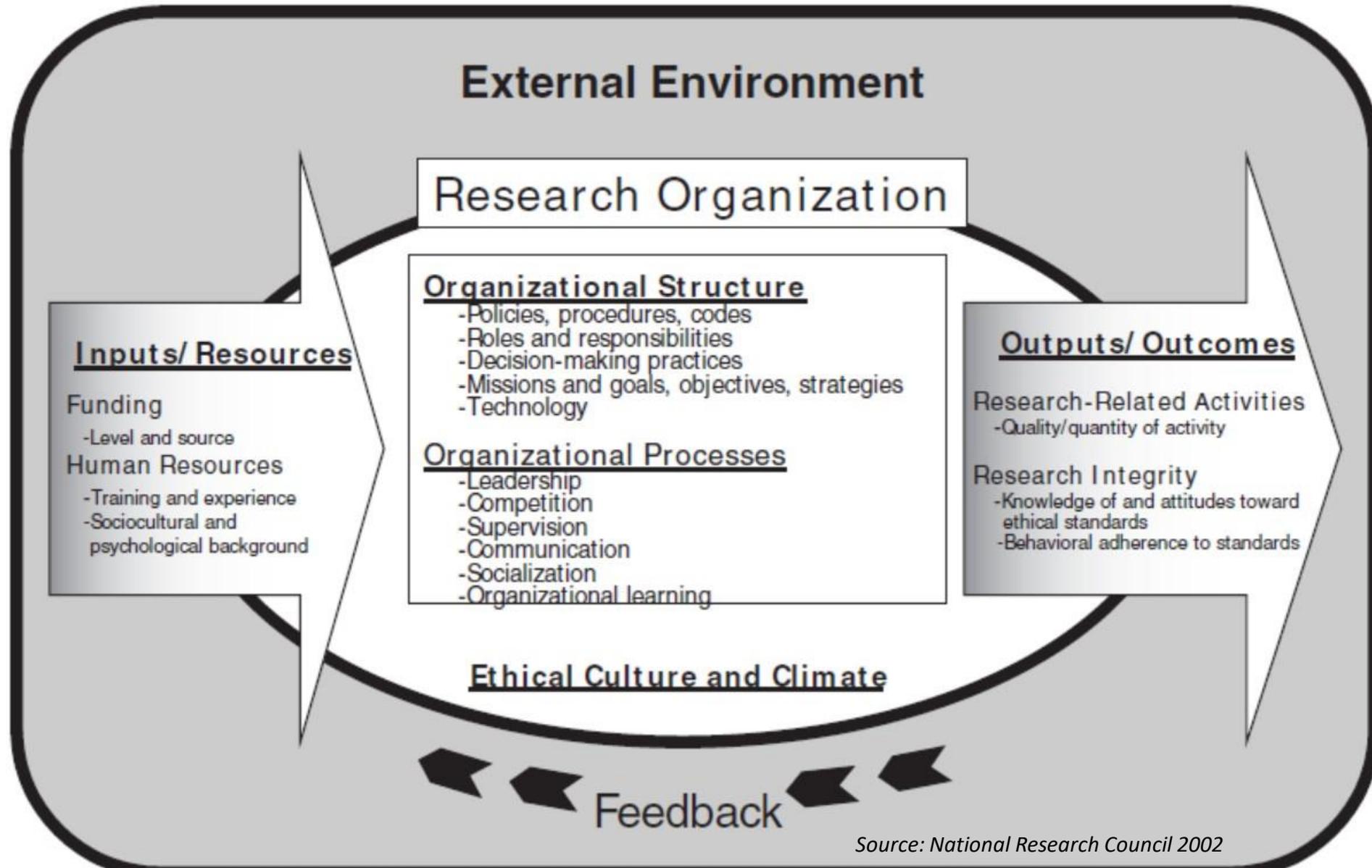# Theories that can guide moving forward
The sociology of RCR

- Build on existing theories in other areas
  - Organizational behaviour and processes
  - Ethical cultures and climates
  - Moral development
  - Theories of adult learning and educational prActices
  - Professional socialization

Moving Forward: Need a working framework

Viewing the research environment as an open-systems model that is often used in general organizational and administrative theory.

US NAS 2002

Open-system model of Research Organization

External Environment

Research Organization

Organizational Structure
- Policies, procedures, codes
- Roles and responsibilities
- Decision-making practices
- Missions and goals, objectives, strategies
- Technology

Organizational Processes
- Leadership
- Competition
- Supervision
- Communication
- Socialization
- Organizational learning

Ethical Culture and Climate

Inputs/ Resources

Funding
- Level and source

Human Resources
- Training and experience
- Sociocultural and psychological background

Outputs/ Outcomes

Research-Related Activities
- Quality/quantity of activity

Research Integrity
- Knowledge of and attitudes toward ethical standards
- Behavioral adherence to standards

Feedback

Source: National Research Council 2002

Environmental influence on integrity in research that are external to research organizations *(Source: US NAS National Research Council 2002)*
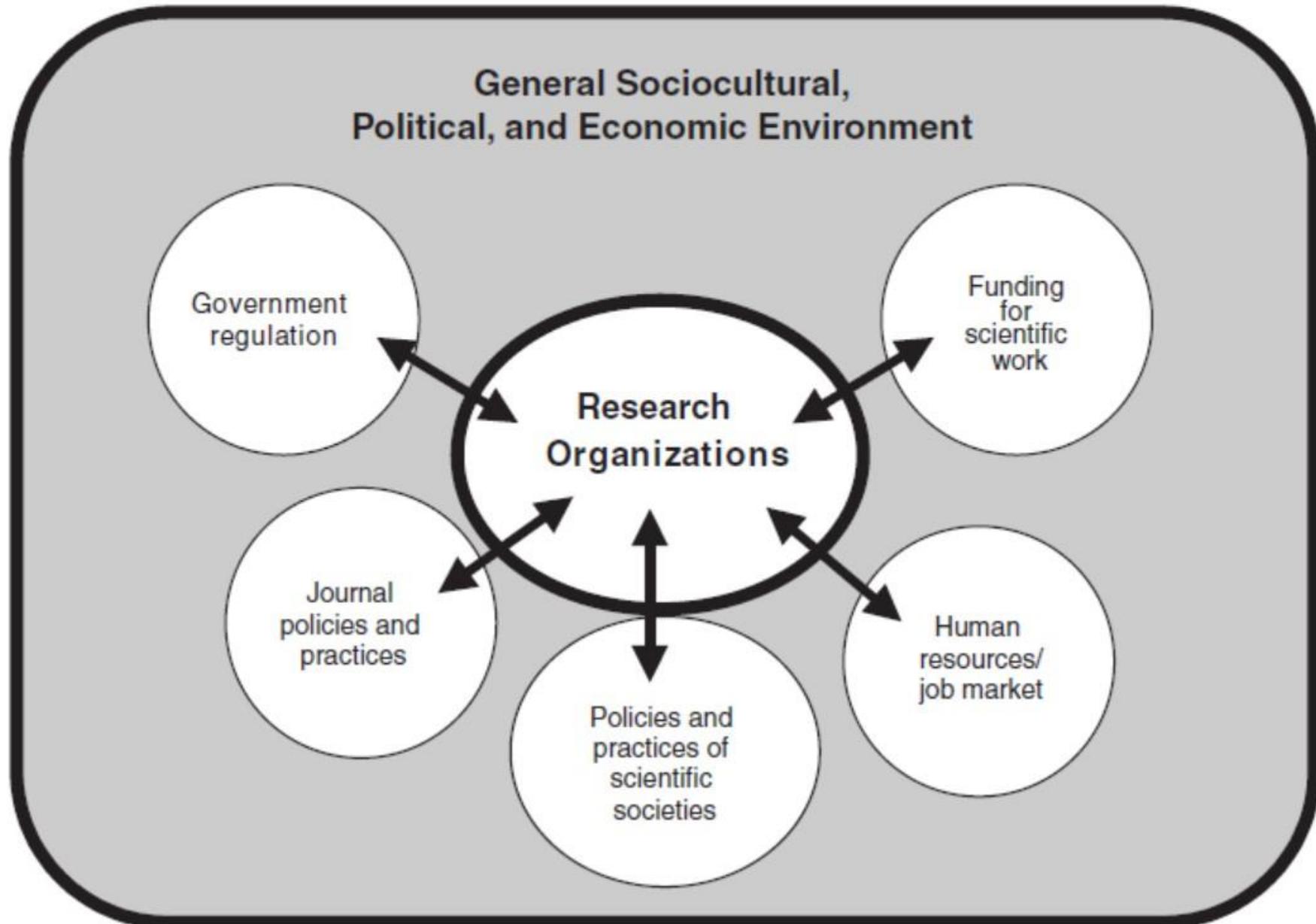
Makerere University Research and Innovations Fund A Golden Opportunity

Mak-RIF Awards 123 Grants in Round 3 2021/2022

NEWS — ROUND 3 GRANTEES — August 19, 2021 — 0 — 411

- Total number of awards 617

  - MakRIF 1   224
  - MakRIF 2   160
  - COVID-19   110
  - MakRIF 3   123

- 268 health awards

- Take RCR to new levels

Good practices in Uganda: Examples

- Existing infrastructures: Mo Science, UNCST, UNHRO, Institutional Ethical committees, Research institutions

- Policies and guidelines eg being launched this morning

- Training courses on RCR

- What is the objective and what are the expected outcomes

- The Annual National Research Ethics conference

- Training at Masters and PhD in bioethics

- Outstanding researchers and so on……..

NATIONAL RESEARCH INTEGRITY FRAMEWORK OF TANZANIA

"Reliability, Honest, Respect and accountability"

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Institutional Level

• Institutions should establish and continuously monitor structures, processes/procedures, policies

• Leadership that supports and respects everyone involved in the research enterprise;

• Promote productive interactions between trainees and mentors

• Advocate adherence to the rules relevant to conduct of research

• Manage individual and institutional conflicts of interest

• Thorough inquiries and investigations of allegations of scientific misconduct and apply appropriate administrative sanctions;

• Offer educational opportunities pertaining to integrity in the conduct of research; and

Individual Level

• A commitment to intellectual honesty and personal responsibility for one's

• Intellectual honesty in proposing, performing, and reporting research;

• Accuracy in representing contributions to research proposals and reports;

• Fairness in ethical and peer review;

• Collegiality in scientific interactions, including communications and sharing of resources;

• Transparency in conflicts of interest or potential conflicts of interest;

• Protection of human subjects in the conduct of research;

• Humane care of animals in the conduct of research; and

• Adherence to the mutual responsibilities between investigators and their research teams.

Education

- **Format**

- **Content**

- **Method of delivery**

- **Duration**

- **Frequency of instruction**

- **Scientific rigor** is the strict application of the scientific method to ensure robust and unbiased experimental design, methodology, analysis, interpretation and reporting of results.

- **The impact of educational efforts may be weakened if what is taught is not actively practiced by supervisors and administrators**.

Recommendations

- **Call to action with Government showing stewardship and support champions**

- **Build a sense of ownership and concern among researchers and their research teams**

- **Collect and use evidence** to address challenges and potential solutions

- **Institutional commitment to RCR: develop systems** that oversee RCR, implement comprehensive programs including education ones to enhance RCR

- **Institutional (a) Self-Assessment** to evaluate and enhance the integrity of their research (b) part of existing accreditation processes

- **Engage the public and show accountability to the public**

- **Collaborate across the region** – East Africa and beyond