

The Role and Relevance of Science Communication to Media and Scientists & Relevance to Development



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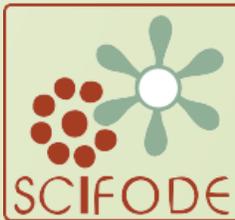
- ▶ Member of Governing Board of East African Commission for Science and Technology (EASTEKO)

- ▶ Worked with the Uganda National Council for S&T and led to establishment of Uganda's Biosafety Regulatory System including National Biotechnology and Biosafety Policy 2008

- ▶ Founding Board Member Uganda Science Journalists' Association (USJA)

- ▶ Member NEMA's Biodiversity Conservation & Management Committee till 2009-2015

- ▶ Founding Coordinator, and Vice Chairperson of Uganda Biotechnology and Biosafety Consortium



Introduction

Science, Technology and Innovation (STI) are key drivers of economic and social progress.

The Asian Tigers and other countries in transition are making leaps due to harnessing science and technology (no short cuts)—and the media has a big role to play here

- ▶ The Treaty for the Establishment of the East African Community (EAC) identifies the widening and deepening of co-operation among Partner States in Science, Technology and Innovation (STI) as a key objective of the Community.

The EAC Countries have therefore agreed to:

- ▶ a. Jointly establish and support scientific research and research institutions in the various disciplines of science and technology;
- ▶ b. Create a conducive environment for the promotion of science and technology in the Community;
- ▶ c. Encourage the use and development of indigenous science and technologies;
- ▶ d. Mobilise technical and financial support from local and foreign sources and from international organisations or agencies for the development of science and technology in the Community;
- ▶ E. Exchange scientific information, personnel and promote and publish research and scientific findings;
- ▶ f. Collaborate in the training of personnel in the various scientific and technological disciplines at all levels using existing institutions and newly established ones;
- ▶ g. Promote, develop and apply information technology and other new technologies throughout the Community;
- ▶ h. Establish common ethical guidelines for research;
- ▶ i. Harmonise policies on commercialisation of technologies and promotion and protection of intellectual property rights.

(Protocol for Establishment of the East African Commission for Science and Technology—EASTECCO, 2015)



➤ Article 42 of the Protocol on the Establishment of the East African Community Common Market commits the Partner States that make up the East African Community to the promotion of research and technological development:

- a. Disseminate the results of activities in research, technological development and demonstration programs;
- b. Facilitate access to their technological and research facilities by researchers and other experts;
- c. Encourage private sector participation in activities relating to intra-regional research and transfer of technology;
- d. Adopt measures to develop the human resource of the Community in Research and Development;
- e. Establish and support research infrastructure facilities and institutions;
- f. Collaborate with the East African Science and Technology Commission (EASTECO) and other institutions on research, science and technology;
- g. Establish a mechanism for the co-ordination of Science, Technology and Innovation (STI) activities

➤ Article 43 of the same Protocol makes it an imperative for the Partner States to cooperate in the field of intellectual property rights:

- a. Institute measures to prevent infringement, misuse and abuse of intellectual property rights;
- b. Cooperate in fighting piracy: and counterfeit activities;
- c. Exchange information on matters relating to intellectual property rights;
- d. Promote public awareness on intellectual property rights issues;
- e. Enhance capacity in intellectual property;
- f. Increase dissemination and use of patent documentation as a source of technological information;
- g. Adopt common positions in regional and international norm setting in the field of intellectual property;
- h. Put in place intellectual property policies that promote creativity, innovation and development of intellectual capital.

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- ▶ Article 44 of the Protocol on the Establishment of the East African Community Common Market provides mechanisms for:
 - ▶ a. Promote linkages among industries and other economic sectors within the Community;
 - ▶ b. Promote value addition and product diversification to improve resource utilisation;
 - ▶ c. Promote industrial research and development, transfer, acquisitions, adaptation and development of modern technology;
 - ▶ d. Promote sustainable and balanced Industrialisation in the Community to cater for the least industrialised Partner States;
 - ▶ e. Facilitate the development of micro, small and medium industries and promote indigenous entrepreneurs;
 - ▶ f. Promote investment and employment opportunities in the Community;
 - ▶ g. Promote knowledge based industries;
 - ▶ h. Promote industrial productivity and competitiveness of industries at national, Community and international levels;
 - ▶ i. Promote sustainable industrial development that ensures environmental protection, management and efficient resource utilisation;
 - ▶ j. Disseminate and exchange industrial and technological information.

Relevance of Media in the STI Development at EAC level

- ▶ You can choose to be interested on matters of STI at EAC level in any of the above thematic areas:
 - ▶ Intellectual property rights, counterfeits
 - ▶ Industrial development—and linking of scientific findings to industry
 - ▶ Policy development: e.g Renewable energy policies, intellectual property policy, regional STI Policy, Science technology and innovation education policies
 - ▶ E-Health Policies, & Health science and health issues
 - ▶ New and other emerging areas such as biotechnology & nano-technology

The Ug. National Development Plan on STI

- ▶ NPPII Section 13 recognizes that STI is key for Uganda to meet her plan which aims at Strengthening Uganda's Competitiveness for Sustainable Wealth Creation, Employment and Inclusive Growth
- ▶ Science, Technology, Engineering and Innovation (STEI); is a major development fundamental.
- ▶ Over time a number of Research and Development (R&D) products have been developed in the clusters of appropriate technologies.
- ▶ Technologies for banana value chain processing, crop breeding and disease control, malaria and livestock diseases control and ICT among others.
- ▶ In bid to promote STI to enhance competitiveness, public acceptance and adoption of edge-cutting technologies like biotechnology and policy formulation are influenced by communication.

Uganda has a number of policies & Agencies and Policies for STI but they are now well known

- ▶ The National Atomic Energy Council established by the Atomic Energy Council Act.
 - ▶ Uganda National Council for Science and Technology established by the UNCST Act
 - ▶ The Uganda Industrial Research Institute established by the UIRI Act
 - ▶ The Uganda National Health Research Organisation (UNHRO) established by the UNHRO Act
 - ▶ The National Agricultural Research Organisation established by the NARO Act
 - ▶ The Infectious Diseases Institute established by the IDI Act
 - ▶ Universities and other research entities
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- ▶ However, the work and impact of these institutions are largely unappreciated, and unknown by the public due to the Scientists-Media divide/gap
 - ▶ There is need to train a cadre of young science journalists but also to awaken the scientists in these entities on the value and relevance of public information

Science communication

- ▶ Public communication that involves presenting science-related topics to non-experts
- ▶ It includes communication between scientists (for instance through scientific journals), as well as between scientists and non-scientists like journalists, politicians and farmers especially during public controversies over science and in citizen science initiatives.
- ▶ Proper science communication should put emphasis on explaining methods rather than simply the findings of science.
- ▶ This may be especially critical in addressing scientific misinformation, which spreads easily because it is not subject to the constraints of scientific method.

The Media Scientist Divide

What Scientists think of Media/Journalists

- ▶ They are unprofessional
- ▶ They will not understand
- ▶ They will waste my time/I have no time
- ▶ They add no value to my work
- ▶ They will muzzle up my research findings & distort facts
- ▶ I can do without them
- ▶ Science is not politics and so I don't need them.

What Media/Journalist think about Scientists

- They are too scientific/academic
- Their work is complicated
- They are detached from reality of society
- Their work is not newsworthy
- They are more comfortable in laboratories
- We can do without communicating about their work
- They are not flexible

New World Order

- Development of Science Communication/Journalism is on the rise
- Challenges in pushing through new innovations has awakened scientists—that they need to communicate
- There is growing mistrust between the public and scientists (the media have greatly contributed to this)
- There is growing anti-science propaganda, and negative media campaigns against scientific progress/innovation
- As the developed countries have developed, there is growing movements of “back to nature” which seem to confront/contradict scientific progression



It is easier to sit down and cook a story against science rather than try to find out exactly what the scientists say

www.independent.co.ug/exposed-ugandas-secret-gmo-research

- ▶ The emergency of scientific commentators—who have emerged as expert opinion makers on scientific issues and yet they are not trained scientists is one of the biggest challenges of our time
- ▶ The principle of balancing “should it apply to scientific facts/findings and science stories?”
- ▶ The Media loves Debates—scientific facts are debatable or Re-tested/re-verified?
- ▶ The Politicization and sensationalisation of science—how do we do it, while keeping scientific facts correct/accurate?

Benefits of science communication to the researchers & Journalists

- Skills Development (S&J)
- Career Enhancements (S&J)
- Enhancing research quality and impact (S)
- New Research and funding Opportunities (S&J)
- Higher Personal and Institutional Profile (S&J)
- Influence and Networking Opportunities (S&J)
- New Collaborations and Partnerships (S&J)
- Increasing awareness of the value of research to society (S&J)
- Influencing Policy (S&J)
- Inspiring next generation of researchers/journalists (S&J)
- Reliable information dissemination & bridging the knowledge gap

Where do we go from Here

- Media encourage science, technology and innovation initiatives and policies of Government
- Interest and train the breed of NextGen breed of science journalists
- Explore and encourage scientists to forge careers in journalism (e.g Dr. Charles Wendo)
- Encourage journalists to unearth the facts and figures behind stories, not just to relay what other people say/heppenings/decisions/policies
- Initiatives and programs focused on training journalists in scientific reporting; and scientists in communication and public engagement & info dissemination (e.g scientist-journalist pairing programs, lab--community-based research involving scientists & journalists)
- Relate science to national development challenges e.g efforts to address maternal, neonatal and new born health
- Food security, drought and climate change, and the future of the country should be at the back of any Food journalist



Transmit

To inspire, inform, change, educate, build capacity and involvement or influence decisions of others (e.g. the public)

E.g. science festivals

Receive

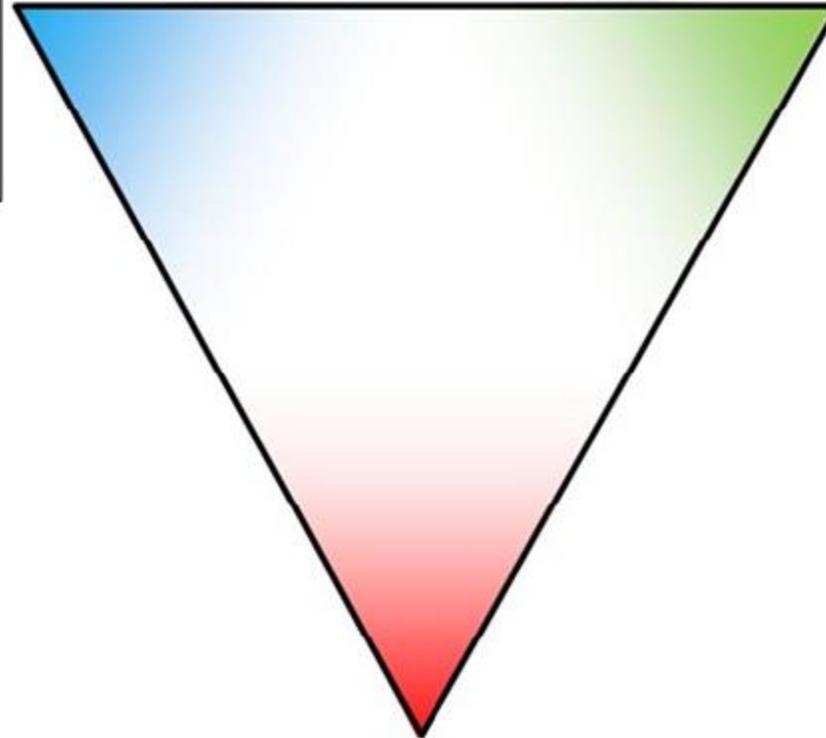
To use the views, skills, experience, knowledge of others (e.g. the public) to inspire, inform, change, educate or build your own capacity or decisions

E.g. surveys

Collaborate

To collaborate, consider, create or decide something together

E.g. consensus building





SCIFODE's Contribution to Science Journalism

- Established in 2006
- Links science to society through public engagement, communication and advocacy
- Has initiated training of scientists in science communication
- Has trained journalists in science communication and provided opportunities over the years (USJA)
- Has organized Scientists-Journalists' pairing scheme programs
- Holds regular Media BioCafes

