



National Commission for Science, Technology and Innovation (NACOSTI)



NACOSTI Plaza

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EDITORIAL

“Science and Technology for Prosperity”



Welcome to the 2nd Volume of the STIR Bulletin of 2022, a publication that highlights the activities of National Commission for Science, Technology and Innovation (NACOSTI) as it pursues its mandate of regulating and assuring quality in the research, science, and technology and innovation sector and advising the Government in matters related thereto. This Volume covers the

period from April 2022 to June 2022.

In this volume, we have highlighted the activities the Commission as it continues in the delivery of its mandate. This being the fourth quarter of the Financial Year 2021/2022, the Commission has been completing the programs it had set to the Financial Year. Key amongst these programs has been the guidance of Government Ministries, Departments and Agencies (MDAs) in mainstreaming of Science Technology and Innovation (STI) in their activities as part of their Performance Contracting target for the Financial Year. Towards this end, the Commission has held several capacity building sessions with the MDAs individually and in groups.

The Commission also carried out its mandate of assurance of quality in the Research, Science, Technology and Innovation sector by amongst other activities undertaking monitoring and evaluation of the activities of research institutes and research

programs. This is amongst the items covered in this bulletin and highlights the role of the Commission in as a regulator in the sector.

In addition, the Commission continued building linkages amongst the scientific community locally and internationally. A major achievement in this is the successful collaboration with the International Centre for Genetic Engineering and Biotechnology (ICGEB) to set up a Regional Research Centre in Kenya.

Several staff capacity building programs have been undertaken during the quarter and we are grateful for the journey we have worked as a community of NACOSTI Staff.

I wish you happy reading as you interact with this issue of the NACOSTI STIR Bulletin.

Mr. Gideon Kirui
Bulletin Committee Chairman

REMARKS FROM THE DIRECTOR GENERAL/CEO

“Science and Technology for Prosperity”



I take this opportunity to welcome you to read the 2nd Edition of the STIR Bulletin of 2022, a publication of the National Commission for Science, Technology and Innovation (NACOSTI). STIR Bulletin captures the latest news and featured articles from the Science, Technology and Innovation (STI) sector, and is therefore the voice of stakeholders in the STI

Ecosystem as communicated by the STI Regulator, NACOSTI. It serves as part of the avenues through which we endeavor to reach a wider network of our stakeholders. In the recent past, we have interacted with stakeholder in the STI ecosystem through hosting and participating in conference, seminars and meetings both physically and virtually. This has enabled NACOSTI to share ideas with local and international experts and stakeholders cutting across various science fields and as a result enriched our capacity to execute our mandate.

NACOSTI is established under the Science, Technology and Innovation Act, 2013 (Rev. 2014) with a unique mandate of regulating and assuring quality in the research, science, technology and innovation sector, and advising the Government in matters related thereto. In so doing, the Commission shall Regulate, Coordinate, Advise and Promote Science, Technology, Innovation and Research activities in the country.

Among others, the functions of NACOSTI include; developing priorities in scientific, technological and innovation activities in Kenya, Registering and Accrediting Research Institutions, Licensing of Research and assuring relevance and quality of research programmes in research institutions, coordinating and evaluating activities relating to scientific research and technology development, annually reviewing the progress in scientific systems, and promoting the adoption and application of scientific and technological knowledge in attaining national development.

Further, the Science, Technology and Innovation (STI), Legal Notice No. 108 (Research Licensing) Regulations, 2014 obligates all persons intending to undertake scientific research in Kenya to obtain a license in accordance with the Act. In this regard, we have made this process easy and convenient for you all by making it available online.

I trust that you will enjoy interacting with the information presented herein. Feel free to contact us through our telephone numbers, email and all our social media platforms. Prof. Walter O. Oyawa, PhD

Prof. Walter O. Oyawa, PhD
National Commission for Science, Technology and Innovation (NACOSTI)

NACOSTI MANDATE, VISION, MISSION, CORE VALUES, & FUNCTIONS

Mandate

The objective of the Commission shall be to regulate and assure quality in the science, technology and innovation sector and advise the Government in matters related thereto.

Vision

Accelerate the Transformation of Kenya as a knowledge-based economy.

Mission

To facilitate quality in the research, science, technology and innovation sector through regulation, promotion and provision of advisory services.

Core Values

The Commission upholds Integrity, Customer Focus, Professionalism, Teamwork and Leadership in the discharge of its mandate.

Functions

- a) Develop, in consultation with stakeholders, the priorities in scientific, technological and innovation activities in Kenya in relation to the economic and social policies of the Government, and the country's international commitments.
- b) Lead inter-agency efforts to implement sound policies and budgets, working in collaboration with the county governments, and organizations involved in science and technology and innovation within Kenya and outside Kenya.
- c) Advise the national and county governments on the science, technology and innovation policy, including general planning and assessment of the necessary financial resources.
- d) Liaise with the National Innovation Agency and the National Research Fund to ensure funding and implementation of prioritized research programmes.
- e) Ensure co-ordination and co-operation between the various agencies involved in science, technology and innovation.
- f) Accredite research institutes and approve all Scientific research in Kenya.
- g) Assure relevance and quality of science, technology and innovation programmers in research institutes.
- h) Advise on science education and innovation at both basic and advanced levels.
- i) In consultation with the National Research Fund Trustees, sponsor national scientific and academic conferences it considers appropriate.
- j) Advise the Government on policies and any issue relating to scientific research systems.
- k) Promote increased awareness, knowledge and information of research system.
- l) Co-ordinate, monitor and evaluate, as appropriate, activities relating to scientific research and technology development.
- m) Promote and encourage private sector involvement in scientific research and innovation and development.
- n) Annually, review the progress in scientific research systems and submit a report of its findings and recommendations to the Cabinet Secretary.
- o) Promote the adoption and application of scientific and technological knowledge and information necessary in
- p) Develop and enforce codes, guidelines, and regulations in accordance with the policy determined under this Act for the governance, management and maintenance of standards and quality in research systems.
- q) Undertake, or cause to be undertaken, regular inspections, monitoring and evaluation of research institutions to ensure compliance with set standards and guidelines.

KENYA PARTICIPATE IN PREPARATORY COMMITTEE MEETING FOR THE NINTH REVIEW CONFERENCE OF THE BWC



Figure 1:: Kenya's Delegation during the Preparatory Committee Meeting for the Ninth Review Conference in April 2022 in Geneva, Switzerland

The preparatory committee meeting for the Ninth Review Conference of the Biological and Toxins Weapons Convention (BWC) was held from 4th to 11th April 2022, in Geneva, Switzerland. Kenya was represented by H.E Amb. Cleopa Mailu (Head of Permanent mission), as the head of the delegation, Prof. Walter Oyawa (Director General, NACOSTI, and BWC National Focal Point), CEO's from several research institutions and several Government officers

Amb. Dr. Cleopa Mailu welcomed the Kenya delegation, noting that the previous Kenyan delegation at the Meeting of State Parties had a significant positive impact on the entire BWC community. He expressed that matters of BWC have moved a notch higher in Kenya owing to the large and keen Kenyan delegation. He looked forward to impacting

outcomes from the current Kenyan delegation, which was equally large and capable. He requested the Delegation to make maximum use of bilateral engagements on the sidelines of the meeting, and to get as much information as possible, as well as seek mutually beneficial

partnerships. He confirm that his office will support the Delegation and the National Focal Point and would make every effort to avail opportunities and facilitate partnerships and collaborations

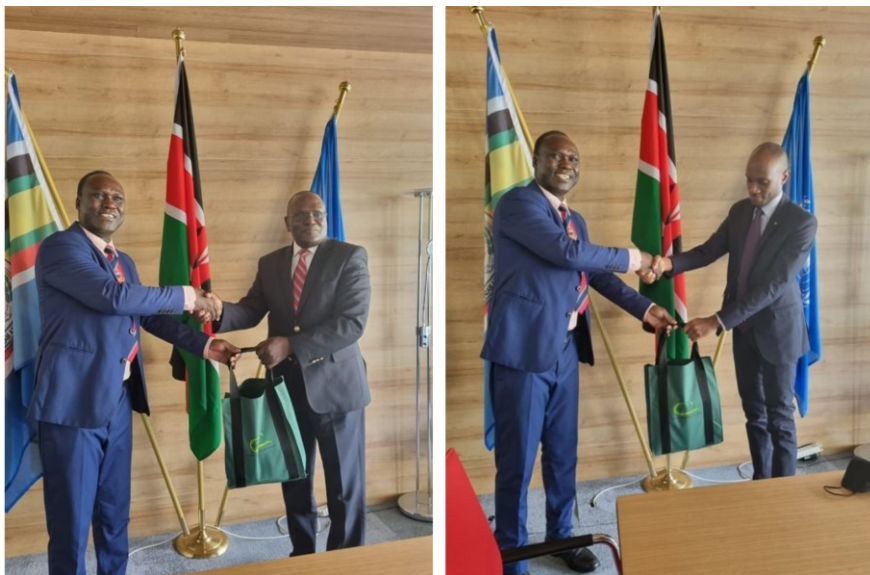


Figure 2: H.E. Amb. Dr. Cleopa Mailu receiving a gift bag from Prof. Walter O. Oyawa

On his part, the National Focal Point and Alternate Head of Delegation Prof. Walter Oyawa thanked H.E. Amb. Dr. Cleopa Mailu for the warm welcome, and continued support for the Kenya Delegation. He thanked the mission for facilitating successful several bilateral meetings on the sidelines of the last Meeting of States Parties held in November 2022. These included meetings with Delegations from the US, UK, Canada, EU, among others. Prof. Oyawa re-affirmed the commitment of the Delegation to represent Kenya effectively and firmly. He observed

that a key pending issue is the finalization of Kenya's Biosecurity Strategy and its accompanying legislative and administrative instruments. The Kenya Delegation will come up with a clear Roadmap on how to achieve the completion of the Biosecurity Strategy. Other members of the Delegation provided background information and insights on the status of developing and implementing the Biosecurity Strategy

PARTICIPATION DURING THE CONVENTION

Agenda Item 5 on General Exchange of Views.

Kenya confirmed that substantive progress to the additional understandings and Agreements reached by previous conferences and in meetings of states parties during the intersessional Programmes held from 2017 to 2020 in relation to various articles of the convention had been realized. Through the established competent designated National Focal Point (NACOSTI), Kenya has continued with the national implementation measures, as appropriate, and in accordance with her 2010 constitution. Such measures include:

1. Developing a legal framework for Biosecurity and Biosafety;
2. Preparation and submission of Confidence Building measures;
3. Weekly Surveillance and Detection Measures through quarterly reports from relevant Ministries, Departments and Agencies;
4. Advocacy and Awareness-raising coordinated by the National Focal Point;

5. Establishing the status of Biosecurity in Kenya by undertaking a national survey;
6. Initiating Education, Research, and Professional practice on Biosecurity in partnerships and collaborations with the other States parties;
7. Mobilizing youth to strengthen the Biological Weapons Convention in Kenya – Kenya in collaboration with UNODA on 24th of March 2022 sensitized over 200 youth on Biological Weapons Convention;
8. Enhancing Collaborations and Partnerships. Kenya's key role in Universalization was recognized through the organization and participation in many Regional and international workshops with the intention of making more States to join the Convention.

Kenya pitched her priority activities as follows:

1. Plans to realize the National Biosecurity strategy through the political class;
2. Enhancing science and technology infrastructure and human capital relevant to BWC;
3. Plans to tackle invasive Weeds, pests, pesticides, and diseases;
4. Advocacy and Experience sharing on Biosecurity matters;
5. Strengthening the youth capacity on biosecurity matters;
6. Enhancing Regional coordination to support Universalization;
7. Capacity Building for champions and desk officers of BWC.

Agenda Item 7: Comprehensive consideration of all provisions of the Convention

The highlights under this agenda item included Kenyan Statements on comprehensive consideration of Article IV- National Implementation of the convention, Article VII- Assistance, Response and Preparedness, Article X- International Cooperation and Article XII- Cross-cutting issues. Since Article IV requires States Parties to take any national measures necessary to prohibit and prevent the development, production, stockpiling, acquisition or retention of biological weapons within a State's territory, under its jurisdiction, or under its control, Kenya encouraged Member States to consider the need for enhanced vigilance and interaction among member states through diagnostic and prophylactic measures that involve peer-based monitoring and assessment of the status of BWC implementation in member states, as well as cross-border collaboration moving forward from the outbreak of COVID-19. Such approach will proactively avert or mitigate against the potential catastrophic effects of emerging Biological Weapons and the next generation bioweapons to security, national cohesion, peace, prosperity, and the general well-being of citizenry. The ongoing advocacy by different States Parties for a Science and Technology Review mechanisms is welcome. As we agree on the mode and structure of participation, Kenya emphasizes that its establishment now is very crucial in managing the potential Biorisks of the new and emerging technologies. Further, investments in Research and Technology Development as pertains to the convention will also require consideration of ethical issues, hence the need for continuous education and training of persons involved. Kenya encouraged States Parties to establish National Scientific and Ethics Review Committees acknowledged the Proposal for the establishment of a Scientific Advisory Committee.

SIDE EVENTS AT THE MARGINS OF THE PREPARATORY COMMITTEE MEETING

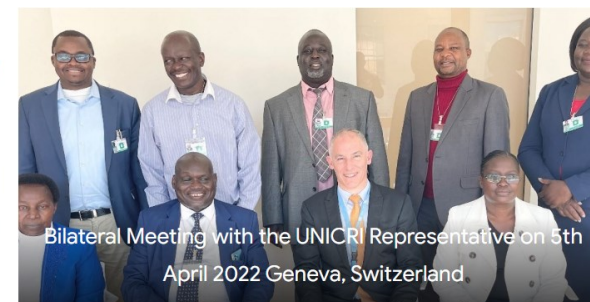


Figure 3 Pictorials - Side Events Meetings

Bilateral Meetings with the delegates

The Kenyan delegation was able to organize and participate in side-events meetings. Bilateral side meetings were as a follow-up of the previous discussions during Meetings of the States Parties in November 2021 with the BWC Implementation Support Unit

(ISU) and delegations from US, Canada, VERTIC and UNICRI. The Bilateral meetings resulted in joint pronouncements covering the need for:

1. Developing of a legal framework for Biosecurity and Biosafety;

2. Preparation and submission of Confidence Building measures;
3. Weekly Surveillance and Detection Measures through quarterly reports from relevant Ministries, Departments and Agencies;
4. Advocacy and Awareness-raising coordinated by the National Focal Point;
5. Establishing the status of Biosecurity in Kenya by undertaking a national survey ;
6. Initiating Education, Research, and Professional practice on Biosecurity in partnerships and collaborations with the other States parties ;
7. Mobilizing youth to strengthen the Biological Weapons Convention in Kenya;
8. Enhancing Collaborations and Partnerships. Kenyan delegation was informed of the Global Partnership's Signature Initiative that has been introduced to Mitigate Biological Threats in Africa as a new project to be implemented for the next 4 years starting 2022.

The project has four inter-connected priority areas which have been identified for collective action that include

1. biosafety and biosecurity;
2. national frameworks;
3. surveillance and epidemic intelligence, and
4. non-proliferation.

Kenya's BWC National Focal Point was requested to be part of Global Partnership's Signature Initiative and will participate in

each of the sub-working groups to develop the modalities of the project implementation.

The partners of the Global Partnership Signature Initiative emphasized their commitment to support the Kenyan government in the development of the broader Biosecurity Strategy and the completion of the Biosecurity Bill, especially in stakeholder engagement and awareness process. The Director General NACOSTI/BWC National Focal Point has been invited to Wilton Park Conference on Biosecurity in the UK as from 20th to 22nd April 2022 where commitments will be translated into Actions. It is a high-level closed-door conference whose focus will be laying modalities for the signature initiative project in Africa. This is an impressive indication of how the global initiative project has considered Kenya as a key stakeholder within Africa in the Institutional framework for BWC Implementation and Biosecurity. Capacity building issues on biosecurity and biosafety through bilateral agreements with the government and implementation institutions and agencies was also discussed. ISU requested Kenya to host the first Universalization workshop under the new project before the ninth Review conference of BWC that will take place at the end of the year. Kenya will work closely with ISU in the preparation and in determination of the outputs of the workshop. To keep the interest of the youths alive in Biosecurity matters, a virtual conference for the youths will be held before the Ninth Review Conference.

Universalization and Effective Implementation of BWC

Kenya participated in a side event under the topic Universalization and Effective Implementation of the BWC in

Africa dubbed “The Global Partnership’s Signature Initiative to Mitigate Biological Threats in Africa with a particular focus on the ISU project: Supporting Universalization and Effective Implementation of the BWC in Africa” on the margins of the Preparatory Committee/Ninth BWC Review Conference on Thursday 7 April 2022. Prof. Walter Oyawa, the Director General National Commission for Science, Technology and Innovation, Kenya / National Focal Point of BWC, was one of the panelists who presented on “the importance of strengthening the domestic implementation of the BWC in Africa including its universalization” Kenya is being identified strategically to lead Universalization efforts in Africa and Effective Implementation of BWC.

CONCLUDING REMARKS

Kenya participated in Preparatory Committee for the Ninth Review Conference and had productive bilateral engagement during the side events at the margins of the PrepCom. The Kenyan delegates, met with the BWC Implementation Support Unit (ISU) and delegations from US, Canada, VERTIC and UNICRI. Highlights of the convention included Kenya’s Statement on General Exchange of Views which captured the substantive progress to the additional understandings and Agreements reached by previous conferences and in meetings of states parties during the intersessional Programmes held from 2017 to 2020 in relation to various articles of the convention. Kenya emphasized on the challenges she is facing currently which included:

1. Aflatoxin, invasive species, new pests and diseases,
2. Lack of a national Biosecurity strategy as a roadmap to finalizing of biosecurity legislations,
3. Capacity Building targeting officers from security agencies and BWC Desk Officers,
4. Strengthening the youth capacity on biosecurity matters,
5. Enhancing Regional coordination to support Universalization,
6. Enhancing science and technology infrastructure and human capital relevant to BWC.

The National Focal point is now preparing for the upcoming Ninth Review Conference that would take place in Geneva in-person format in accordance with the regular practice under the BWC from 28th November to 16th December 2022, subject to the availability of funds. For publicity, the Preparatory Committee requested the Secretariat to issue press releases for the meetings of the Review Conference.

Kenya is a member of Biological and Toxins Weapons Convention (BWC) since 7th January 1976 and has attended 2 review conferences since -The Seventh and Eighth Review Conferences in 2011 and 2016 respectively.

ICGEB ESTABLISHES FIRST REGIONAL RESEARCH CENTRE IN AFRICA



Figure 4: The International review team during an on-site inspection at Egerton University under the coordination of NACOSTI

In a letter addressed to Kenya's Ministry of Foreign Affairs, and copied to the Cabinet Secretary, Ministry of Education Prof. George Magoha, the Principal Secretary Amb. Simon Nabukwesi and the Director General of NACOSTI, Prof. Walter Oyawa, the International Centre for Genetic Engineering and Biotechnology (ICGEB) has announced the award to Egerton University to host the 1st ICGEB Regional Research Centre in Africa and its 2nd in the world after China. This is a landmark achievement by Kenya as a global powerhouse in science, technology and innovation.

Egerton University was selected by a review panel comprising scientists from the USA, Italy, India and South Africa, and experts from other Kenyan institutes as an appropriate site to host the Regional Research Centre after a competitive process coordinated by the National Commission for Science, Technology and Innovation (NACOSTI). Seven (7) Universities in Kenya had applied to host the ICGEB Regional Research Centre following which three (3) were shortlisted for further on-site inspection culminating in the selection of Egerton University.



Figure 5: On-site inspection at Egerton University

The International Review team unanimously agreed to choose Egerton University as the site for the ICGEB Regional Research Centre, taking cognizance of its strong commitment for teamwork, expansion of the facilities and space envisaged, and for the clear recruitment process. The ICGEB Appointed Governor for Kenya and Director General, NACOSTI – Prof. Walter Oyawa,

presented this update to the ICGB Board of Governors on the occasion of its 28th Session on 17-18 May, 2022. The Board enthusiastically endorsed the Kenyan proposal. Accordingly, the next step is to prepare and sign a formal cooperation agreement formalizing the establishment of the Regional Research Centre at Egerton University in Kenya, and firming up its intended activities and funding mechanisms under the coordination of NACOSTI and oversight of the Ministry of Education and the National Treasury. In parallel, the RRC Steering Committee and Scientific Committee will also be constituted in line with ICGB RRC guidelines, and the premises equipped.

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Biotechnology development remains a top priority in Kenya's development discourse and public safety preservation, aimed at developing breakthrough technologies in tune with the Big Four Agenda, viz, mitigating opportunistic diseases hence enhancing the health of citizenry, enhancing food security, evolving more efficient and cleaner industrial manufacturing processes, and reducing negative effects on the environment. Accordingly, the establishment of a Regional Research Centre at Egerton University comes at an opportune time.

HIGH-LEVEL FRENCH DELEGATION PAYS COURTESY CALL TO NACOSTI



Figure 6: CNRS representatives led by the President and CEO Prof Antoine Petit NACOSTI Staff led by Prof. Walter Oyawa on 22nd June 2022 at the headquarters of the commission.

The French National Centre for Scientific Research (CNRS) representatives led by the President and CEO Prof Antoine Petit and the Attaché for Science and Higher Education at the Embassy of France in Kenya Dr. Mathieu Guérin paid a courtesy call to the Director General, the National Commission for Science Technology and Innovation (NACOSTI), Prof. Walter Oyawa on 22/06/2022 at the headquarters of the commission. The consultative meeting was also graced by Chairpersons of NACOSTI Board Committees Ms. Rachel Shibalira and Prof. Raphael Munavu, the CEO of the National Research Fund Dr. Jemimah Onsare, a representative from the Ministry of Interior, and senior staff of the Commission. The meeting's purpose was to deliberate on possible ways and mechanisms of collaboration between the French National Centre for Scientific Research and the National Commission for Science Technology and Innovation. Most importantly, the consultative meeting sought to enhance cooperation with Africa in the field of scientific research and understand the strategy and policy of Kenya on scientific research for future cooperation.

The French National Centre for Scientific Research is the French state research organization and the largest fundamental science agency in Europe. In 2016, it employed 31,637 staff, including 11,137 tenured researchers, 13,415 engineers and technical staff, and 7,085 contractual workers. The CNRS was ranked No. 3 in 2015 and No. 4 in 2017 by the Nature Index, which measures the largest contributors to papers published in 82 leading journals. In May 2021, the CNRS was ranked No. 2 in the Nature Index, before the Max Planck Society and Harvard University.



Figure 7: Pictorials

The discussions were spearheaded by Ms. Rachel Shibalira who explained the role of NACOSTI as the agency mandated to regulate and assure quality in the science, technology and innovation sector in Kenya, and advise the government in matters related thereto. She emphasized on collaboration across all the relevant fields that support the realization of Kenya's Vision 2030 and in tune with National science and technology priorities. On his part, Prof Munavu pointed out the importance STEM education, Science Museum, indigenous technologies, and possible ways on how to foster basic sciences through events such as Science Olympiads. The CEO of National Research Fund who is also a Board member of NACOSTI, Dr. Jemimah informed the meeting of previous collaborations with institutions in France and looked forward to intensified partnerships of mutual benefit.

Prior to inviting the head of the French delegation to give his remarks, the Director General of the Commission, Prof. Walter Oyawa, thanked the delegation for their desire to collaborate with

NACOSTI. He reiterated NACOSTI's regulatory, coordination, and advisory mandate of the science, technology and innovation sector. He informed the meeting of possible areas of collaboration and partnerships that included: joint research, technology development and innovation projects that are focused on national priorities; joint resource mobilization for research, science, technology, and innovation activities; exchange of individual scientists for the purpose of conducting academic research work, organize and participate in joint academic, scientific and technological events such as conferences and exhibitions; exchange of information on the management of techno-parks; Research Chair Programmes; Research Centres of Excellence; Joint Laboratories and participation in European Union Framework Programs (EUFPs) for research, development, and innovation; joint harnessing of science and technology for maximum exploitation of the Blue Economy.

The head of French Delegation Prof Antoine Petit informed the meeting of the scale of investment of the French government and CNRS on science, technology and innovation. He stated that CNRS has 1000 Labs out of which 100 Labs are outside France of which two (2) are in Africa (in Senegal & South Africa). He expressed the delegations desire to partner with NACOSTI in the furtherance of science and technology for mutual benefit, and confirmed that the areas of collaboration proposed by NACOSTI were very similar to CNRS priorities, hence making it easier to initiate joint activities. He was in full support of initiation and facilitation of staff and student exchange programmes between both countries as part of capacity building.

On the way forward, there was agreement to commence work with and review the already established MoU with the Ministry of Education. Dr. Mathieu Guérin, the Attaché for Science and Higher Education at the Embassy of France in Kenya offered to circulate existing MoUs or protocols for further consideration. The French delegation agreed to host the Kenyan delegation in France at an opportune moment.

OUTSTANDING SCIENTIST APPOINTED FELLOW OF INTERNATIONAL SCIENCE COUNCIL



Figure 8: Prof. Walter Oyawa Director General NACOSTI

National Commission for Science, Technology and Innovation (NACOSTI) Director General/CEO Prof. Walter Oyawa has been appointed a fellow of the International Science Council. He is among 66 Foundation Fellows who were recognized for their outstanding contributions to promoting science as a global public

good. The Fellowship is the highest honor that can be conferred on an individual by the International Science Council.

The first cohort of Fellows includes distinguished scientists, engineers and thought-leaders from the science-policy sphere who have made incredible contributions to furthering understanding of and engagement with science. As scientific specialists and as knowledge brokers, they uphold the ISC's vision of science as a global public good, of knowledge that is shared openly and freely to all who wish to scrutinize it and to use it to further understanding. The Fellows come from across the world and from different disciplinary backgrounds and sectors of work. Of the 66 Foundation Fellows announced today, there are 30 women and 36 men, including several younger scientists who have already made exceptional efforts in advancing science as a global public good.

In his speech the ISC President Peter Gluckman said, "We want to clearly recognize those scientists who have contributed and continue to contribute to the global voice for science," "science needs champions, not just those who receive high-profile scientific prizes, but those who champion science in society and in policy-making, whether early or late in their career". The ceremony took place on the 9th of June 2022 during the 18th Meeting of the Governing Board of the International Science Council at the ISC Secretariat in Paris, France.

Prof. Oyawa sits in the current Governing Board consisting of 16 members of the International Science Council that was elected at the 2nd General Assembly on 14 October 2021 for a designated period of three years. The Governing Board is one of the key decision-making bodies of the International Science Council

providing scientific and strategic leadership to oversee achievement of the Council's vision, mission, principles, and values, and to secure the financial and management robustness of the Council.



Figure 9: Current governing board of the International Science Council

Prof. Oyawa is a civil engineer by profession and is passionate about utilization of STI in emerging economies for sustainable socio – economic development. He is also Chair of the East African Science and Technology Commission (EASTECO) Governing Board, an institution of the East African Community (EAC) among other key roles regionally and nationally.

NACOSTI CHOSE KMFRI FOR ITS MAIDEN REVIEW PROCESS



Figure 10: Dr. James Mwaluma, KMFRI Director for Marine and Coastal Systems presents highlights of KMFRI researches to NACOSTI Committee on the opening day.

The mandate of NACOSTI is to regulate, assure quality and advise the Kenya Government on matters related to Science Technology and Innovation (STI). Its regulatory framework is embedded in the Kenya Constitution 2010, Science and Technology Act 2013, and Legal Notices nos. 106, 107 and 108. When the National Commission for Science, Technology and Innovation (NACOSTI) was established in 1977 following the folding of its predecessor the National Council for Science and Technology (NCST), its first research institution to register was KMFRI immediately after its

formation in 1979. Coincidentally, when NACOSTI embarked on its mission to inspect, monitor and evaluate research institutions in Kenya in 2021, KMFRI was its first port of call.



Figure 11: NACOSTI Board Member and Co-Chairman of the Review Process Prof. Raphael Munavu (L) hands over the Exit Report to Dr. Erick Okuku, Mombasa Centre Director

KMFRI and NACOSTI have developed very cordial working relation over the years and they share common partners among them the National Research Foundation (NRF) – sharing similar aspirations for the national research priorities of Kenya. On various occasions, senior staff of both institutions have shared membership roles in various local, regional and global fora for addressing matters of research and development. Also at the

national level, KMFRI and NACOSTI shared similar aspirations in popularizing science and technology in the community.

Objectives of NACOSTI

1. provide timely advisory services to National and County;
2. Governments on Science, Technology and Innovation;
3. Popularise and promote Science, Technology and Innovation;
4. Register and accredit research institutions nationally;
5. License all research conducted;
6. Monitor, Evaluate and Assess Impact of Research

Review Process

The four day NACOSTI Review Mission held at KMFRI's Dolphin Hall commenced on 22nd June 2021 and was conducted by a team of 8 experts. They were led by the Chairman Prof. Raphael Munavu, Co-Chairman Prof. Ratemo Michieka and Mr. Boniface Wanyama Head of Research, Accreditation and Quality Assurance, who represented the Director General of NACOSTI.

The activities included reviewing the organizational and institutional structure of KMFRI and evaluating research projects undertaken in the institute in consultation with relevant research scientists. The team made a tour of KMFRI and inspected the facilities and infrastructure on the ground. They reviewed all the documents provided by KMFRI and held consultations with the staff responsible for various sections.

The team observed that KMFRI has a policy on succession management, and noted that the policy should be implemented

alongside the human resource policy documents for continued service delivery and sustainability. Evidence of KMFRI engagement in Corporate Social Responsibility was also availed to the team. Other documents evaluated by the team included the Strategic Plan, Workplan 2019/2020/2021, Research Policy, Service Charter, Human Resource Manual, Intellectual Property Rights Policy, Standard Operating Procedures and Manuals, among others.

Outcome and initial recommendations

The Committee encouraged KMFRI to expand linkage with tertiary institutions in the region, especially in their core mandate. The Committee observed that the Institute has a wide array of movable and immobile fixed assets that should be documented for purposes of sharing nationally.

The committee encouraged KMFRI to seek research licenses from NACOSTI to undertake projects that require authorizations as per STI Act, 2013. It is commendable that most of the research projects are conducted through partnerships and collaborations that involve universities, government agencies, community-based organizations and development partners. Furthermore, the collaborators and partners are not only drawn from within Kenya, but also from the eastern Africa region, Africa and around the globe. However, partnership with industry, which is critical in the commercialization of research products was observed to be minimal. This linkage needs to be improved and expanded as soon as possible.

On completion of the exercise, the committee presented a draft Exit Report and commended KMFRI on the following outstanding attributes:

1. Available State of the art facilities in the laboratory, including the museum;
2. Installed solar panels to manage electricity bills;
3. Established water desalination plant to cut down on operational costs;
4. Full cooperation from all the staff during the evaluation;
5. Timely presentation of all the documents requested and availability of senior staff for consultation;
6. KMFRI is in compliance with Kenya's Big 4 National Agenda, AU Agenda 64 and SDGs.

Way forward

KMFRI is now expected to commence working on a road map to implement the recommendations based on the Exit Report pending submission of the comprehensive evaluation report from NACOSTI. The Exit Report was endorsed by the Committee's Chair and Co-Chair on Behalf of NACOSTI, and the Centre Director of Mombasa Station on behalf of the Director General of KMFRI.

Source: <https://www.kmfri.co.ke/index.php/about-us/research-centres/shimoni-research-centre/13-news-and-events/250-nacosti-chooses-kmfri-for-its-maiden-review-process>

TRAINING FOR THE NCPB TEAM IN SCIENCE, TECHNOLOGY, AND INNOVATION MAINSTREAMING PC INDICATOR



Figure 12: National Cereals and Produce Board (NCPB) staff and Facilitators from NACOSTI

The National Commission for Science, Technology, and Innovation (NACOSTI) facilitated a three-day training on the Science, Technology, and Innovation performance contracting indicator and reporting to the National Cereals and Produce Board (NCPB) Focal Person and Champion(s). The training was convened by the NCPB.

In accordance with the purposes of the STI Act enactment, the Financial Year 2021/2022 Performance Contracting Guidelines (18th Cycle) released by the Ministry of Public Service and Gender incorporated a performance indicator on STI

mainstreaming. The implementation of this indicator is to be coordinated by NACOSTI, and requires Government Ministries, Departments and Agencies (MDAs) to mainstream STI into their operations, programmes and projects in line with provisions and aspirations of the STI Act. Accordingly, during the FY 2021/2022, MDAs are required to appoint an STI Focal Person and Champions to coordinate STI mainstreaming, and to document available Research, Technology, and Innovation, as well as human resource capacity as per guidelines provided by NACOSTI.

As part of the implementation of indicator, MDAs are also required to develop and implement an Institutional STI Strategy using the template provided by NACOSTI and submit quarterly and annual reports to NACOSTI.

During the training, NACOSTI Director General Prof. Walter Oyawa emphasized the importance of implementing the PC STI mainstreaming indicator. The NCPB team was given clarity on the origin of the indicator, roles, and requirements of focal person and champion(s), overview and development of the institutional STI strategy, requirements by MDAs implementing the indicator and the quarterly reporting template.

The STI strategy was a key deliverable of the training session since it will aid the implementation of the STI indicator. NCPB staff realized the necessity of including STI in their activities by the end of the three-day exercise, as Mr. Noah Koskei, NCPB's Corporate Planning Manager and STI Focal Person, underlined in his closing remarks that indeed the training was eye opener and critical for better understanding and realization that NCPB

mandate is already anchored and infused in STI and thus the need moving forward is to identify, structure and segregate the same in the NCPB organisational STI strategy and continuously implement

In 2021, the African Union and Africa Center for Disease Control and Prevention (Africa CDC) launched the Partnerships for African Vaccine Manufacturing (PAVM) aimed at leveraging pan-African and global partnerships to scale-up vaccine manufacturing in Africa. One of the specific goals of PAVM is to ensure that by 2040, African countries produce at least 60 percent of the vaccines they use instead of the 1 percent currently manufactured on the continent.

Coming at a time when the COVID-19 pandemic and other cross-border challenges, relating notably to the environment and security have ravaged world economies, PAVM offers significant opportunities to foster connections between science, technology, and innovation with geopolitics and diplomacy. The transcendental nature of science diplomacy infused with nearly universal scientific language helps blur political differences, build confidence, and mutual understanding.

TRAINING FOR THE NSSF TEAM IN SCIENCE, TECHNOLOGY, AND INNOVATION PC INDICATOR



Figure 13: NSSF staff and Facilitators from NACOSTI

The National Commission for Science, Technology, and Innovation (NACOSTI) facilitated a three-day training on the Science, Technology, and Innovation performance contracting indicator and reporting to the National Social Security Fund (NSSF) Focal Person and Champions on the 14th -16th June 2022. The training was convened by the NSSF.

In accordance with the purposes of the STI Act enactment, the Financial Year 2021/2022 Performance Contracting Guidelines (18th Cycle) released by the Ministry of Public Service and

Gender incorporated a performance indicator on STI mainstreaming. The implementation of this indicator is to be coordinated by NACOSTI, and requires Government Ministries, Departments and Agencies (MDAs) to mainstream STI into their operations, programmes and projects in line with provisions and aspirations of the STI Act. Accordingly, during the FY 2021/2022, MDAs are required to appoint an STI Focal Person and Champions to coordinate STI mainstreaming, and to document available Research, Technology, and Innovation, as well as human resource capacity as per guidelines provided by NACOSTI.

MDAs are required to develop an institutional STI Strategy to guide in the implementation of STI activities in their respective institutions. The key deliverable of the training was an STI strategy for NSSF. On his closing remarks the Ag. Manager Research & Development Mr. Omar Khamis said they would further engage NACOSTI in the spirit of continued improvements to enhance and improve on the STI strategy and other rese

STREK REGIONAL CONFERENCE ON STRENGTHENING RESEARCH ETHICS

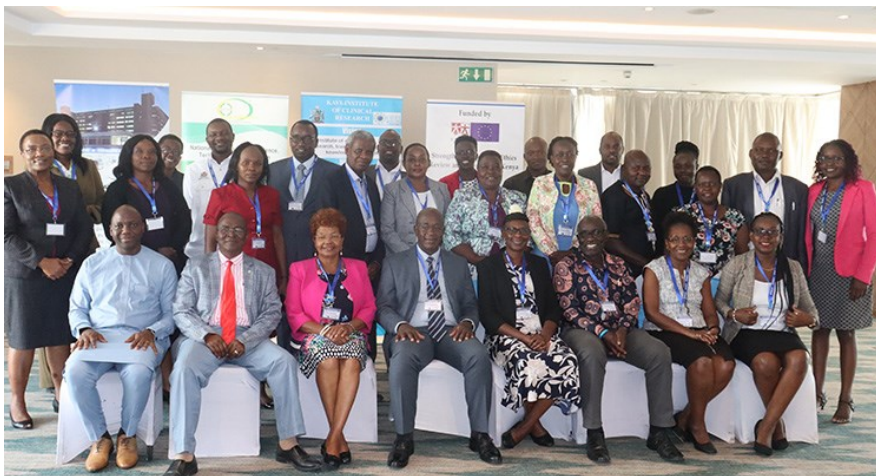


Figure 14: Group Photo During the Regional Conference on Strengthening Research Ethics” at the Crowne Plaza Hotel in Nairobi, Kenya, from 24 – 26 May 2022

The University of Nairobi (UoN) in partnership with the National Commission for Science, Technology and Innovation (NACOSTI) and Kenyatta National Hospital (KNH) received funding from EDCTP to build the capacity of the newly established Research Ethics Committees in a project titled “Strengthening Research Ethics Oversight in Kenya (STReK).”

In this regard, UoN jointly hosted the “Regional Conference on Strengthening Research Ethics” at the Crowne Plaza Hotel in Nairobi, Kenya, from 24 – 26 May 2022. The main goal of this conference was to share experiences and lessons learned with

other Research Ethics Committees (RECs) in the East African Region and to encourage best practices in research ethics oversight and enhance networking. This was achieved through keynote addresses, abstract-driven presentation sessions, and panel discussions. Participants were members of Research Ethics Committees (RECs) from Kenya, Nigeria, Somalia, South Africa, Tanzania, Uganda, and Zambia.

The conference was organised under the following sub-themes:

- Research ethics review and oversight
- Research involving vulnerable populations
- Research during pandemics/emergencies/epidemics
- Digitisation of the ethics review process
- Data protection in research
- Capacity building in research ethics
- Management and administration of RECs
- Contemporary issues in research ethics.

The three-day conference covered a wide variety of topics relevant to strengthening RECs, including the use of ICT in improving turnaround time in ethics review, implementation of training and mentorship programmes, evaluation of their capacity, and institutional support. Other topics included contemporary issues in research ethics, research ethics in social science research, data sharing and personal data protection in research, roles of lay persons in RECs, ethics in research involving adolescents, and strengthening research capacity in mental health research in low and middle- income countries, among others.

The conference began with a keynote address by Prof. Keymanthri Moodley from the Centre for Bioethics and Law at Stellenbosch University, South Africa. Prof. Moodley highlighted key issues that should be taken into consideration in strengthening research ethics in Africa. These include decolonisation of bioethics scholarship; promotion of stakeholder engagement; taking African philosophical accounts, such as “ubuntu” into consideration in conducting research involving human participants; and creation of leadership and formation of bioethics networks in Africa.

Prof. Jesang Hutchinson, the UoN Associate Vice Chancellor, Research Innovation and Enterprise (RIE) emphasised that good research must be conducted in an ethical manner and reminded participants that research ethics is the cornerstone of good research. Research should be beneficial and aligned to the country’s national priorities and should protect research participants, seek consent, and respect participants. She also indicated that the consistently high ranking of UoN both locally and globally is attributed to the contribution made by researchers at the institution.

In his remarks, Prof. Walter Oyawa, NACOSTI Director General, indicated that he is proud to be associated with UoN and other stakeholders as they continue to play a critical role in ensuring quality research in Kenya. He highlighted the fact that there is a deep and rapid technological change in the world and Kenya cannot afford to lag behind.

In his remarks, Dr. Evans Kamuri, CEO of KNH, stated that research is very important to institutions, countries and the world at large, and should not be undermined. He pointed out that in the healthcare field, research provides very important information about disease strengths, risk factors and outcomes of treatment and gives a way forward in terms of public health interventions, management of health systems, and how care is delivered.

Prof. Walter Jaoko, Coordinator of the STReK project, stressed the need to strengthen research ethics in Kenya, creating a research network and sharing experiences by researchers.

The UoN team conveyed great appreciation to EDCTP for funding all the project activities and also appreciated NACOSTI and KNH for their support. EDCTP was represented by the Project Officer, Nuraan Fakier.

arch related matters.

KENYAN INNOVATOR, SCHOLAR GET TOP UK HONOURS



Figure 15: Ms Norah Magero and Prof Yotto Ochieng.

The aura of confidence is discernible as one meets Norah Magero. Having being crowned the Royal Academy Engineering's 2022 winner due to her ingenuity, Magero is sitting on the innovator's pedestal.

The bubbly innovator of a solar-powered fridge – VacciBox – used for storage of vaccines, received the news on Wednesday and is still savouring the success of hard work and resilience fuelled by the desire to change the life of the rural folk.

Vaccibox, she explained, is a portable cooler designed with a telescopic handle to ease mobility of vaccines, as it can be ferried even on boda bodas.

"It is uniquely made and digitally enabled. It has customised features that record temperatures, location and it can enter stocks," she explained.

She is confident that her work is on the road to World Health Organisation (WHO) and ISO certification, in a deliberate effort to demonstrate that the country was ripe for innovation.

Being crowned the winner by the United Kingdom (UK) based Academy; the renewable energy specialist will earn slightly more than Sh3.6 million for coming up with the technology.

"We have been rewarded for developing off grid power technology that is not only affordable, portable but will address the challenges facing the rural folk, especially in vaccine storage," opened up Ms Magero.

She is targeting to sell the coolers to the county governments, with Makueni showing willingness to purchase them, a move that has excited the engineer.

Still in the UK, a Kenyan scholar famed for having solved the London transport crisis, has once again shattered another glass ceiling.

UK prime minister Boris Johnson appointed Prof Washington Yotto Ochieng as a trustee of the Science Museum Group (SMG) for a period of four years, effective June 1.

Prof Ochieng, who heads the Department of Civil and Environmental Engineering at Imperial College in London, will serve the SGM as an engineering and technology trustee.

SGM brings together five British museums and has pioneered interactive science interpretation for more than eight decades. The five museums include the National Railways Museum in York, the Science Museum in South Kensington, the National Science and Media Museum (formerly the National Media Museum and the National Museum of Photography, Film and Television) in Bradford.

According to its website, the SGM shares its unparalleled collections spanning science, technology, engineering, mathematics and medicine with over five million visitors each year.

Born in Homa Bay County 58 years ago, Prof Ochieng attended Kisumu Technical High School for both his O and A levels before he graduated with a Bachelor of Science degree in civil engineering from the University of Nairobi in 1988.

Prof Ochieng was part of the team that developed the first European navigation system.

Source: <https://nation.africa/kenya/news/kenyan-innovator-scholar-get-top-uk-honours-3852066>

PUBLIC UNIVERSITY ENROLMENT DIPS AS TVET NUMBERS GROW



Figure 16: Enrolment at public universities dipped for the first time in three years in a period that saw the intake at technical colleges offering diploma and certificate courses increase 22 percent. FILE PHOTO | NMG

Enrolment at public universities dipped for the first time in three years in a period that saw the intake at technical colleges offering diploma and certificate courses increase 22 percent.

Official data shows that students joining public universities for undergraduate degrees dropped for the first time in three years to 448,482 in the year to June from 452, 089.

Enrolment at Technical and Vocational Education and Training (TVETs) hit 265,095 from 217, 440—making it the biggest rise in five years.

The falling population of university students snubbing university education is a departure from the past when degrees were viewed by many as a ticket for promotion at the workplace and getting a job.

This has coincided with the government's increased focus on technical colleges in the quest to feed the labour market with craftsmen and technicians.

The University of Nairobi suffered the biggest dip with 47, 693 students from 57, 927 last year.

“The enrollment is partly attributed to delayed registration of students, transfer of some students to private universities and interruptions associated with Covid-19 pandemic,” the Kenya National Bureau of Statistics says in the report.

Undergraduate enrollment at private universities in the year ending June stands at 113, 584— the highest since 2019 backed by the transfers of students joining from public universities.

The drop in government-sponsored students at public universities has hit cash flows at the institutions given that government funding is based on the number of students admitted to each institution.

The funding woes have forced public universities to freeze hiring and slow down expansion due to mounting debts.

Enrollment at TVETs has been on a steady rise from 116,564 in June 2018 coinciding with the government's increased focus on technical colleges in a bid to feed the labour market with craftsmen and technicians.

President Uhuru Kenyatta's administration has been reviving technical colleges a departure from the trend set by former President Mwai Kibaki of converting mid-tier colleges into universities.

This led to an increase in the number of graduates with liberal arts degrees in a job market that was already saturated.

The government also opened funding from Higher Education Loans Board (Helb) to students joining TVETs a shift from the past where loans were available only to students admitted to universities.

The National Treasury rolled out tax rebates for employers that offer one-year internships to TVET graduates from the start of this year, further boosting the appeal of the institutions. Universities have been enjoying tax relief since 2016.

Kenya is pushing for 100 percent transition from primary school to secondary school offering hope for TVET institutions to keep getting students.

The institutions are seen to match well with the competency-based curriculum (CBC) that puts more emphasis on nurturing practical skills among learners as opposed to amassing certificates based on theory learning.

Source:

https://www.businessdailyafrica.com/bd/economy/public-university-enrolment-dips-for-first-time-in-three-years-3805878?mc_cid=1858258b53&mc_eid=203a03c878

SCIENCE COMMUNICATION IS A KEY ENABLER OF ONE HEALTH CULTURE AND PRACTICE



Former Irish playwright the late George Bernard Shaw once famously remarked that, “the single biggest problem in

communication is the illusion that it has taken place.” This quote succinctly embodies the problem with communication while underscoring importance of effective engagement and messaging.

As scientists work around the clock to grapple with intractable challenges such as food insecurity, pandemics, environmental pollution and so on, it is emerging that social sciences, such as science communication, play a crucial role in actualizing research efforts, and ensuring solutions benefit society. Unfortunately, communication has often times been treated as an afterthought, and applied using a one-size-fits-all approach, as opposed to following a strategic planning and implementation process.

Scientists need to put more effort towards contextualizing their communication and help stakeholders understand their research outputs so as to make evidence-based decisions. Strategic communication enables researchers to get through, strengthening the connection between science and society, and building the much needed confidence towards scientific information.

Researchers applying the One Health approach have a complex issue at hand due to its multi-sectoral and multidisciplinary nature. One Health is a collaborative and transdisciplinary approach with the goal of achieving optimal health outcomes recognising the interconnection between people, animals, plants and their shared environment. Consequently, experts need to be more deliberate about applying strategic communication and outreach efforts, given there is an urgent need to break down the

silo mentality typified in the research world, as well as in One Health related line ministries.

In Africa we believe that if you want to go fast, go alone. But if you want to go far, walk with others. To address the silo mentality plaguing research, one proposed intervention is starting with stakeholder net-mapping. Net-mapping is a reflective tool for advanced problem solving. The tool can help in understanding relationships and linkages among One Health actors, thereby informing stakeholder engagement strategies and identifying where resources are best invested to achieve impact based on the desired goal. Identifying shared values and addressing territorial issues cultivates togetherness and team work in implementing One Health related activities. Efforts to increase engagement and collaboration across relevant sectors, and especially among the right actors, while addressing any existing conflicts identified through the net-mapping linkages is key.

Another fundamental issue that can potentially affect implementation of One Health related research and governance is the lack of effective soft/interpersonal skills among those tasked with driving the agenda. Consequently, ensuring the right actors are equipped with requisite skills to engage and influence is paramount. To establish cross-sectoral collaboration, there is need to strengthen negotiation skills and team dynamics among actors in government entities with One Health mandates, as well as researchers. Additionally, establishing or strengthening of national One Health platforms depends largely on such soft skills.

ISAAA AfriCenter has joined a strong coalition of partners comprising of the International Livestock Research Institute and CIRAD, a French agricultural research and cooperation organization working for the sustainable development of tropical and Mediterranean regions, to facilitate rapid uptake, adaption and adoption of solutions to issues that can be dealt with using a One Health approach. Dubbed Capacitating One Health in Eastern and Southern Africa (COHESA), the project will work towards increasing relevance of One Health research and policies, enhancing cross-sectoral collaboration, as well as equipping education and research institutes to train the next-generation workforce tasked with tackling One Health issues. ISAAA AfriCenter, leading a work package centred around promoting national and regional One Health collaboration and governance, will bring its vast experience in working with multi-stakeholder platforms and strengthening the soft-skills of those needed to effectively work together across sectors to operationalise the One Health approach.

Dr. Margaret Karembu is the Director, ISAAA AfriCenter and Co-Lead of the Capacitating One Health in Eastern and Southern Africa (COHESA) project

Source: <https://africenter.isaaa.org/science-communication-key-enabler-one-health-culture-practice/>

RESEARCH NEWS FROM THE WORLD

BRITISH MAN GIVEN 3D PRINTED EYE IN WORLD FIRST, HOSPITAL SAYS



Figure 17: Steve Verze has become the first man in the world to be fitted with a 3D printed eye, according to Moorfields Eye Hospital. He tried the eye for size earlier this month, as photographed here.

(CNN)A British man has become the first patient in the world to be fitted with a 3D printed eye, according to Moorfields Eye Hospital in London. Steve Verze, who is 47 and an engineer from Hackney, east London, was given the left eye on Thursday and first tried it for size earlier this month. Moorfields Eye Hospital said in a press release Thursday that the prosthetic is the first fully digital prosthetic eye created for a patient.

The eye is more realistic than other alternatives and is designed to have “clearer definition and real depth to the pupil,” the hospital said.

Other prosthetic eyes consist of an iris hand-painted onto a disc that is then embedded into the eye socket. However, their design prevents light from passing into the “full depth” of the eye, the hospital added in the release. As well as appearing more realistic, the procedure is considered less invasive.

Fitting traditional prosthetics requires a mold to be taken of the eye socket, whereas in 3D prosthetic eye development the socket is scanned digitally to create a detailed image. Verze’s functional eye was also scanned to ensure both eyes look the same.

Potential to cut waiting times ‘in half’

The 3D image was then sent to Germany to be printed before being shipped back to the UK, where it was finished and polished by a Moorfields Eye Hospital ocularist. “I’ve needed a prosthetic since I was 20, and I’ve always felt self conscious about it,” Verze was quoted as saying in the press release. “When I leave my home I often take a second glance in the mirror, and I’ve not liked what I’ve seen. This new eye looks fantastic and, being based on 3D digital printing technology, it’s only going to be better and better,” he added.

Moorfields Eye Hospital said 3D printing had the potential to “cut in half” the time it takes to develop a prosthetic eye, from six

weeks to around two or three. A spokesperson told CNN a clinical trial involving more patients would soon begin.

Professor Mandeep Sagoo, clinical lead for the project at Moorfields Eye Hospital and professor of ophthalmology and ocular oncology at University College London, said in a statement he was “excited” about the potential of the new development method. Speaking ahead of the eye being fitted, Sagoo said: “We hope the forthcoming clinical trial will provide us with robust evidence about the value of this new technology, showing what a difference it makes for patients.”

Source: <https://edition.cnn.com/2021/11/25/health/3d-printed-eye-scli-intl-gbr-scn/index.html>



**NATIONAL COMMISSION FOR SCIENCE,
TECHNOLOGY AND INNOVATION (NACOSTI)**

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PUBLIC NOTICE

Licensing of Research in Kenya

The National Commission for Science, Technology and Innovation is established by the Science, Technology and Innovation (STI) Act, No. 28 of 2013, Revised in 2014 (the Act) as a State Corporation. The Commission **regulates and assures quality in Science, Technology and Innovation Sector and advises the Government in matters related thereto.** In this regard, the Act stipulates seventeen (17) functions of the Commission. Among the functions of the Commission, Section 6(1)(f) of the STI Act 2014 [2013] specifies that the **Commission shall accredit research institutes and approve all Scientific research in Kenya.**

Consequently, Section 12(3) of the Act requires that **any person undertaking or intending to undertake research** in science and technology in the country, or who accesses, handles, or transfers any material or technology or moves it within, from or into the country, shall apply to the Commission for the grant of a licence in accordance with the Act.

Section 12(5) of the Act further **directs that no licence shall be granted** by the Commission for any research involving activities which;

- (a) may **adversely affect the culture of any community** in Kenya;
- (b) may **adversely affect the environment**;

- (c) may **result in the exploitation of intellectual property rights of communities** to their traditional knowledge.
- (d) may, in the view of the Commission, **adversely affect the lives of Kenyans.**

Section 13(1) of the Act reinforces Section 12(5) by directing that the Commission shall, upon receipt of an application under section 12, evaluate the application, and if **satisfied that the conduct of the research is beneficial to the country, and that the research shall not adversely affect any aspect of the nature, environment or the security of the country,** issue to the applicant a licence in the prescribed form.

Pursuant thereto, members of the public are hereby notified that according to the Science, Technology and Innovation Act 2014 [2013], Scientific Research in Kenya must be approved and licensed by the Commission.

As stipulated in Section 15 of the Act, any person who accesses, handles, transacts, transfers or moves any specified technology or any material necessary for scientific research within, into or from Kenya without a licence issued under this Act; or contravenes the provisions of Section 12 of the Act, **commits an offence** and shall, in addition to any other penalty which may be provided for in this Act or any other written law, be liable on conviction to a fine not exceeding five million shillings or to imprisonment for a term not exceeding four years, or both.

For further clarification kindly contact the Commission, or visit online services at <https://research-portal.nacosti.go.ke/>

PROF. WALTER O. OYAWA, PhD

DIRECTOR GENERAL

SERVICE CHARGES

Fees/Charges for Research Licensing

Table 1: Current fees/charges for Research Licensing

No	Category of Research License	Fees/charges
1)	Kenya Citizens: Diploma / Undergraduate	Ksh. 100
	Kenya Citizens: MA/MSc	Ksh. 1,000
	Kenya Citizens: PhD	Ksh. 2,000
	Kenya Citizens: Individual / Post Doctoral	Ksh. 5,000
	Public Institutions	Ksh. 10,000
	Private Institutions	Ksh. 20,000
2)	EAC Citizens: Diploma / Undergraduate	Ksh. 100
	EAC Citizens: MA/MSc	Ksh. 1,000
	EAC Citizens: PhD	Ksh. 2,000
	EAC Citizens: Individual / Post Doctoral	Ksh. 5,000
3)	Rest of Africa: Diploma / Undergraduate	Ksh. 200
	Rest of Africa: MA/MSc	Ksh. 2,000
	Rest of Africa: PhD	Ksh. 4,000
	Rest of Africa: Individual / Post Doctoral / Non-academic Doctoral	Ksh. 10,000
4)	Non-Africans: Diploma / Undergraduate	US\$ 150
	Non-Africans: MA/MSc	US\$ 350
	Non-Africans: PhD	US\$ 400

NACOSTI is ISO 9001:2015 Certified

	Non-Africans: Individual / Post Doctoral / Non-academic	US\$ 500
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Notes:

1. Non-Kenyans in local institutions with work permits and/or Permanent Resident Permits to pay same as Kenya citizens.
2. Students in local institutions of higher learning pay same as citizens.
3. The Supervisor may apply on behalf of a class undertaking Diploma or Degree course, however the service cost will be dependent on the number of students

Fees/Charges pertaining to Research Institutions

Table 2: Current fees/charges for Registration of Research Institutions, Accreditation of Research Programmes, and Monitoring and Evaluation of Research Institutions

No.	Services	Current fee in KES
1)	Registration of Research Institutions	250,000
2)	Accreditation of Research Programmes	250,000
3)	Inspection, Monitoring and Evaluation of Research Institutions	A basic fee of 275,000 will be levied per inspection in addition to any other additional costs that will be related to the inspection

DRAFT GUIDELINES FOR STAKEHOLDER INPUT, COMMENTS, AND RECOMMENDATIONS

The National Commission for Science, Technology and Innovation (NACOSTI) is established by STI Act 2013(Rev. 2014) with the objective of regulating and assuring quality in the science, technology and innovation sector and advise the Government in matters related thereto. Further, Section 6(1)(p) of the STI Act mandates the Commission to develop and enforce codes, guidelines and regulations in accordance with the policy determined under this Act for the governance, management and maintenance of standards and quality in research systems. In this regard, the Commission has developed draft guidelines as listed below, and hereby invites stakeholders for their written input, comments, suggestions and recommendations by September 2021. In this regard, the Commission has developed draft STI Priorities, and Guidelines as listed below, and has circulated the same to stakeholders for their input, comments, suggestions, and recommendations. The Commission therefore reminds stakeholders who have not yet submitted their written input, suggestions and recommendations to the Commission for consideration to do so by latest 30th November, 2021. The documents may be downloaded at NACOSTI Website www.nacosti.go.ke

- **DRAFT “PRIORITIES IN SCIENTIFIC, TECHNOLOGICAL AND INNOVATION ACTIVITIES”**

The Priorities in Scientific, Technological and innovation activities in Kenya are in line with Section 6(1)(a) of the STI Act which stipulates that “the Commission shall develop, in consultation with stakeholders, the priorities in scientific, technological and innovation activities in Kenya in relation to the economic and social policies of the Government, and the country’s international commitments”

- **DRAFT “NATIONAL GUIDELINES FOR REGISTRATION, LICENSING, AND REGULATION OF RESEARCHERS IN KENYA”.**

The Guideline is in line with Section 15 of the Legal Notice 106 of 2014, of the STI Act 2013, titled “STI (Registration and Accreditation of Research Institutions) Regulations, 2014”, which mandates the Commission to register, license and regulate researchers in the Scheduled Science areas.

- **DRAFT “NATIONAL GUIDELINES FOR ACCREDITATION OF ACADEMIC JOURNALS IN KENYA”.**

The Guideline is in line with Section 26 of the STI Act which specifies that “Research findings and information regarding research systems shall be stored or disseminated, utilized or applied in such a manner as may be prescribed by the Commission from time to time”.

CURRENT NACOSTI STAFF



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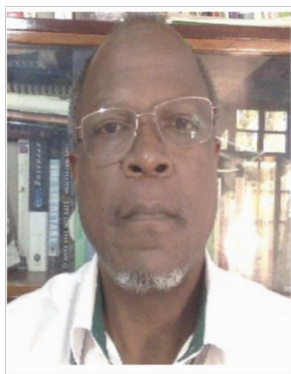
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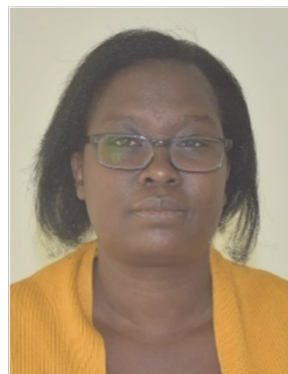
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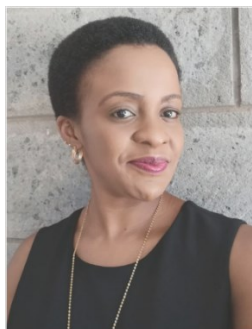
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Administrator*



*Ms. Wairimu Ikua
Senior Officer
Administrator*



*Ms. Christine Kayesi
Senior Officer
Administrator*



*Ms. Millicent Okuku
Officer Administrator*



*Ms. Nahida Annar
Officer Administrator*



*Ms. Marren Oriko
Supply Chain Management
Assistant*



*Ms. Ruth Asati
Senior Customer Care
Assistant*



*Ms. Lourine Auma
Accounts Assistant*



*Ms. Kulah Abdikadir
Account Assistant*



*Mr. Paul Anuro
Senior Driver*



*Mr. Pius Samoei
Senior Driver*



*Mr. Abdi Ibrahim
Senior Driver*

KENYA'S NATIONAL ANTHEM

Kiswahili

1

Ee Mungu nguvu yetu
Ilete baraka kwetu
Haki iwe ngao na mlinzi
Natukae na undugu
Amani na uhuru
Raha tupate na ustawi.

2

Amkeni ndugu zetu
Tufanye sote bidi
Nasi tujitoe kwa nguvu
Nchi yetu ya Kenya
Tunayoipenda
Tuwe tayari kuilinda

3

Natujenge taifa letu
Ee, ndio wajibu wetu
Kenya istahili heshima
Tuungane mikono
Pamoja kazini
Kila siku tuwe na shukrani



English

1

O God of all creation
Bless this our land and nation
Justice be our shield and defender
May we dwell in unity
Peace and liberty
Plenty be found within our borders.

2

Let one and all arise
With hearts both strong and true
Service be our earnest endeavour
And our homeland of Kenya
Heritage of splendour
Firm may we stand to defend

3

Let all with one accord
In common bond united
Build this our nation together
And the glory of Kenya
The fruit of our labour
Fill every heart with

THE EAST AFRICA COMMUNITY ANTHEM



1. Ee Mungu twaomba ulinde
Jumuiya Afrika Mashariki
Tuwezeshe kuishi kwa amani
Tutimize na malengo yetu.

Chorus

*Jumuiya Yetu sote tuilinde
Tuwajibike tuimarike
Umoja wetu ni nguzo yetu
Idumu Jumuiya yetu.*

2. Uzalendo pia mshikamano
Viwe msingi wa Umoja wetu
Natulinde Uhuru na Amani
Mila zetu na desturi zetu.

3. Viwandani na hata mashambani
Tufanye kazi sote kwa makini
Tujitoe kwa hali na mali
Tuijenge Jumuiya bora.



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