National Commission for Science, Technology and Innovation (NACOSTI)

STIR BULLETIN
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EDITORIAL

"Science and Technology for Prosperity"

The period April to June 2024 covered the fourth and final quarter of the Financial Year 2023/2024. As a closing quarter, this meant the conclusion of the programs targeted for the financial year. This involved the Commission completing execution various Performance contract targets and engagements with our various partners – local, regional and global.

The Commission held the 3rd Multi-Sectoral Conference and Exhibition on Research, Science, Technology and Innovation in May 2024. The yearly conference, which was organized by the Commission and 13 other partners, aimed to facilitate a multifaceted forum of national and international discourse to deliberate, network, partner, share experiences and resolve on how best to infuse or deploy Science, technology and innovation for prosperity of humanity as well as for public good, safety and security. The conference attracted experts, professionals and researchers from around the world on a technology-driven and innovation-led inclusive sustainable development agenda. This bulletin provides an highlight of the activities and deliberations during the Conference.

During the Conference, the Commission launched several key documents. Amongst these was the Strategic Plan for the period 2023 to 2028, the Annual Status and Progress Report on Research, Science, Technology and Innovation in Kenya and the Priorities in Scientific, Technological and Innovation Activities in Kenya. These documents will guide the operations of the Commission and the RSTI ecosystem over the next couple of years. Snapshots of the launch of these documents are shared in this Bulletin.

NACOSTI has as one of its mandates, the duty to assess and register research institutions in the country. This facilitates regulation and quality assurance amongst the players in the research environment in the Country. During the last quarter of the FY 2023/2024, twelve (12) research institutions were issued with certificates of registration. A summary of this process and the names of these research institutions is shared in this Bulletin for our readers awareness.

This Bulletin also highlights other topical issues in RSTI within and outside the country as we continue to promote the enhancement and mainstreaming of RSTI in the day-to-day operations of our entities.

We wish you a happy reading of this issue of the NACOSTI STIR Bulletin, we also thank you for your continued support in the FY 2023/2024.

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, 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 endeavour 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
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) Accredit 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.

NACOSTI HOLD ITS 3RD MULTI-SECTORAL CONFERENCE AND EXHIBITION ON RESEARCH, SCIENCE, TECHNOLOGY, AND INNOVATION

Figure 1: Group Photo of the High level, Inter-ministerial and Co-conveners 3RD Multi-Sectoral Conference and Exhibition on Research, Science, Technology, and Innovation in Nairobi

The National Commission for Science, Technology and Innovation (NACOSTI) recently convened the 3rd Hybrid Multisectoral Conference and Exhibition on Science, Technology, and Innovation (STI), under the theme "Science, Technology, and Innovation as the Gamechanger for National Security and Sustainable Prosperity." This significant event brought together leaders from government, industry, and academia to explore how STI can address pressing national and global challenges.

Held in collaboration with key stakeholders, including jointly with the National Research Fund (NRF), Kenya National Innovation Agency (KENIA), the National Counter Terrorism Centre (NCTC), Centurion Systems Ltd, Konza Technopolis Development Authority (KoTDA), National Defence University Kenya (NDU-K), Kenya Industrial Property Institute (KIPI), Egerton University, Kenya Vision 2030 Delivery Secretariat (VDS), Open University of Kenya (OUK), Kenya Association of Manufacturers (KAM), Engineers Board of Kenya (EBK) and Kenya Institute of Advance Science and Technology (Kenya-AIST), the conference attracted 527 participants.

The conference featured a high-level dialogue on the integration of STI into national systems, focusing on its potential to enhance security and prosperity. Thematic discussions covered eleven subthemes, ranging from national security and public safety to the 5th industrial revolution and data governance. The discussions aimed to address challenges posed by rapid technological advancements and evolving security threats.

Participants had the opportunity to present 38 scholarly papers and showcase 26 exhibitions, highlighting innovative products, services, and ideas related to STI activities. The event also recognized eminent scientists for their contributions and awarded high school students for their achievements in the STIR Olympiad, sponsored by local and international institutions.

Prof. Walter Oyawa, a leading voice in the sector, emphasized the pivotal role of RSTI in shaping a globally competitive and prosperous nation. "Targeted investments in RSTI are essential for our national development," he stated. "This will not only bolster our economy but also ensure long-term security and growth."

Figure 2: Prof. Walter O. Oyawa, Director General- NACOSTI during the 3rd Multi-sectoral Conference on Research, Science, Technology and Innovation at Safari Park Hotel in Nairobi.

Echoing these sentiments, Prof. Shaukat Abdulrazak highlighted the transformative power of RSTI in achieving Sustainable Development Goals (SDGs) and tackling pressing issues such as cancer diagnosis and food security. "Increased collaboration with

international bodies is crucial to harness the full benefits of science, technology, and innovation for Africa's development," he said.

Figure 3: Prof. Raphael Munavu, Board Member of the National Commission for Science Technology and Innovation (NACOSTI).

Prof. Raphael Munavu stressed the need for Africa to bridge the technological gap, leveraging its vast resources and potential. "We must mobilize resources and forge partnerships to drive socio-economic development through robust investment in RSTI," he urged.

Figure 4: Principal Secretary State Department for Higher Education and Research, Dr. Beatrice Inyangala.

The commitment to integrating RSTI into national agendas was reiterated by Dr. Beatrice Inyangala. She acknowledged the efforts of the National Commission for Science, Technology, and Innovation (NACOSTI) and its partners in organizing the event, emphasizing the importance of STI in addressing both national and global challenges.

Figure 5: H.E. Josphat Nanok

In his address, H.E. Josphat Nanok highlighted the government's dedication to supporting the RSTI sector as a cornerstone of the Bottom-Up Economic Transformation Agenda (BETA). "We must adopt open science and actively seek collaborations to fully realize the benefits of STI for our national development," he concluded.

The conference concluded with several significant outcomes, including the production of a comprehensive conference report detailing the proceedings and key resolutions. A policy brief will outline priorities in STI activities, aligning them with national policies and international commitments. The event also fostered international collaborations and enhanced awareness of regulatory frameworks governing Kenya's STI system.

The 3rd Multisectoral Conference underscored the critical role of STI as a catalyst for national security and sustainable development. It advocated for strategic investments and collaborative efforts to harness STI's potential, paving the way for a thriving and secure future for Kenya.

HUGE EXPECTATIONS AS INTERNATIONAL INNOVATION CONFERENCE KICKS OFF IN NAIROBI

Figure 6: Deputy Head of Public Service Josephat Nanok, who was the chief guest, during the 3rd Multisectoral Conference and Exhibition on Research, Science, Technology and Innovation Conference

The Third Multisectoral Conference and Exhibition on Research, Science, Technology and Innovation (MS-CEORSTI) that kicked off in Nairobi on Tuesday will end tomorrow, a deliberation that focused primarily on using technology to better lives.

The yearly conference, which is organized by National Commission for Science, Technology and Innovation (NACOSTI) and 13 other consortiums, aims to facilitate a multifaceted forum

of national and international discourse to deliberate, network, partner, share experiences and resolve on how best to infuse or deploy Science, technology and innovation for prosperity of humanity as well as for public good, safety and security.

The conference has attracted experts, professionals and researchers from around the world on a technology-driven and innovation-led inclusive sustainable development agenda.

Prof Walter Oyawa, Director General NACOSTI, said Science, Technology and Innovation (STI) have direct impact on the economy of nations and countries must invest in it.

He noted that the government has made matters of STI priority in addressing issues facing communities nationally and globally.

Deputy Head of Public Service Josephat Nanok, who was the chief guest, said the conference is timely and STI contributes to national production.

Nanok said the national government is applying STI for national prosperity and national good, being a key enabler of the five strategic pillars that constitute the bottom-up transformation agenda.

He noted that the government supports young people to innovate to improve service delivery in all sectors of the economy.

The council will give information on relevance of STI to national security, public safety, public health, food and national security, climate change mitigation, and inclusive sustainable development.

Principal Secretary (PS) in the State Department for Higher Education and Research Dr Beatrice Inyangala, who represented Education CS Ezekiel Machogu, pointed out that the ministry supports STI by continuing to apply it in all government programmes to improve Kenya's competitiveness and to unlock its full potential.

She noted that International Science Council governing board led by Prof Peter Gluckman is also holding a crucial meeting in Nairobi, which she noted will see it increasing its presence in Africa.

The agencies that partnered with NACOSTI to convene the conference include National Research Fund (NRF), Kenya National Innovation Agency (KENIA),National Counter Terrorism Centre (NCTC), Centurion Systems Limited, Konza Technopolis, National Defence University (NDU), Kenya Industrial Property Institute (KIPI), Egerton University, Kenya Vision 2030 Delivery Secretariat (VDS), Kenya Association of Manufacturers (KAM), Open University of Kenya (OUK), Engineers Board of Kenya (EBK), and The Kenya Advanced Institute of Science and Technology (Kenya -AIST).

Source: https://www.educationnews.co.ke/huge-expectations-as-international-innovation-conference-kicks-off-in-nairobi/

STATE CLIMBS DOWN ON RESEARCH FUNDING

Figure 7: Prof. Munanu during the 3rd Multisectoral Conference and Exhibition on Research, Science, Technology and Innovation Conference

The government might not keep its word to commit two per cent of the Gross Domestic Product towards research. And now the State is calling on the private sector to fund the deficit.

A recent meeting resolved that the government was ready to provide the requisite two per cent for research and innovation, an equivalent of about Sh250 billion.

Prof Raphael Munavu, the chairman of the National Commission for Science, Technology and Innovation, said the private sector would boost the funding deficit in research.

"GDP is part of what you and I contribute and that is why we have to bring the private sector on board so that what they provide and that which is given by the government together can get to two per cent and even beyond," Munavu said in Nairobi during the opening of a three-day conference on science and technology. He noted the need to diversify research funding to achieve groundbreaking innovations.

"In terms of resource mobilisation, can we rethink and restructure our funding. We have to look at how we can entice the private sector because this is what is being done in other countries," he said.

According to Prof Walter Oyawa, the commission's director general, the government currently provides 0.8 of the GDP to funding research and innovation. This represents about Sh100 billion.

This makes Kenya Africa's second biggest spender on research and development after South Africa, which commits 0.85 per cent of its GDP.

"At the moment the amount set aside for research includes 47 per cent sourced from the private sector," said Munavu.

In March, the National Research Fund unveiled a proposal to revamp the governing law in science, technology and innovation to provide up to two per cent of the GDP.

According to the Central Bank of Kenya, the country's GDP stood at Sh13.5 trillion in 2022, thus two per cent of this would be Sh260 billion.

The proposal is contained in the Science, Technology and Innovation (Amendment) Bill, 2024, which is among 12 laws the government has proposed to change to reform the education sector.

The meeting also emphasised the need of the younger generation to invest in research and innovation.

In a previous interview, Oyawa said the government plans to have at least 60 per cent of learners under the Competency-Based Curriculum (CBC) join Science Technology Engineering and Mathematics (STEM) courses at the senior secondary school.

The pioneer CBC class is currently in the junior secondary school Grade 8 and will be transiting to senior school in 2026 and university in 2029.

Further, he said, the government projects that 25 per cent of the learners will join humanities and 15 per cent creative studies.

Source:
https://www.standardmedia.co.ke/health/education/article/2001494696/state-climbs-down-on-research-funding#google_vignette

TAP INTO NUCLEAR ENERGY FOR CANCER DIAGNOSIS, TREATMENT – EXPERTS

Kenya has been challenged to embrace nuclear energy for diagnosis and treatment of cancer as well as production of electricity.

Prof. Shaukat Abdulrazak, the Director International Atomic Energy Agency, Africa Program, said about 75 per cent of the African population don't have access to treatment of cancer, hence nuclear energy offers a valuable opportunity.

Abdulrazak said his agency is collaborating with various African countries including Kenya on ways to convert atomic energy for peaceful use including production of electricity and food security.

Figure 8: Prof. Shaukat Abdulrazak, the Director International Atomic Energy Agency (IAEA) Africa Program speaking during the official opening of the 3rd Multi-sectoral Conference on Research, Science, Technology and Innovation at Safari Park Hotel in Nairobi.

"If you want to move forward with the Bottom-Up Economic Transformation Agenda, nuclear energy should be an important ingredient in that mix. We shall continue cooperating with Kenya to make sure this source of energy becomes a reality," he said.

Abdulrazak spoke during the opening of the 3rd Multi-sectoral Conference on Research, Science, Technology and Innovation at Safari Park Hotel in Nairobi which drew scientists from across the region and globe.

Kenya can also leverage on the use of nuclear energy in enhancing food security as well as production of clean energy.

"Food insecurity has been a major challenge and this technology can be used, in what we call mutation breeding, where we can develop varieties that can withstand certain challenges including drought, soil salinity among others," he noted.

Prof Abdulrazak added, "We are here to contribute to the large agenda of Science Technology and Innovation for social economic development".

While officially opening the forum, PS State Department for Higher Education and Research, Dr. Beatrice Inyangala said there is need for Kenya to raise the funding for research, technology and innovation.

The State is working closely with development partners to raise adequate resources, she said, adding that research requires multiple funding streams.

"We are optimistic that through partnerships, at University-to-University level and with our development partners, we will be able to raise sufficient funding for research in our country," Dr Inyangala said.

She added that the government has already moved towards evidence-based policy making and is eager to harness research findings from various fields, sectors and universities.

“Like now we are talking about greening the economy, moving towards clean power, environmental protection among others, research will be fundamental to show us what works and what would work so that we develop programmes based on the evidence to reap maximum benefits for our people,” she said.

Her ministry is encouraging research, technology and innovation from basic learning through the Competency-Based Curriculum (CBC).

“We want to widen the scope of research to include medical, agricultural, educational and other spheres and now that we are moving towards the CBC curriculum, we are emphasizing on building skills and teaching our children to do research at an early age,” remarked Inyangala.

Prof Raphael Munavu, a Board member of the National Commission for Science Technology and Innovation which is organizing the four-day conference said one of the challenges facing scientists is “communicating science which many think is a complicated subject”.

Prof Munavu, who is also the Chairman Presidential Working Party on Education Reforms asked the media to help simplify scientific innovations using simple language and also for the private sector to incorporate scientific research.

The Deputy Chief of Staff in the Public Service Josphat Nanok called on researchers to come up with innovative ways of mitigating climate change that has resulted in flash flooding and prolonged periods of drought.

“I call upon key players including industry, academia and public institutions, local and international communities to foster a common front in resource mobilization in the face of these challenges,” Nanok said.

During the conference opening ceremony, 12 more research institutions were awarded with certificates of registration bringing the total number of registered research institutions in the country to 33.

Some of the Institutions include the Kenya Agriculture and Livestock Research Organization, Kenya Academy of Sports, Women Education Researchers of Kenya, Kenya Marine and Fisheries Research Institute, International Cancer Institute, Mhealth Kenya among others.

NACOSTI Director General Prof Walter Oyawa reiterated that certification of the institutions is geared towards promoting research, science and innovation for the socio-economic growth and development of the country.

Source: https://www.the-star.co.ke/counties/central/2024-05-09-tap-into-nuclear-energy-for-cancer-diagnosis-treatment-experts/

TRAINING MODULE ON STI MAINSTREAMING IN MDAS

Figure 9: Participants during the training Module on STI Mainstreaming in MDAs

NACOSTI launched a five day in-person training module on STI Mainstreaming in MDAS in Rapidly Changing Times from 10th to 14th June 2024 at Naivasha. Participants present are from Research Institutions, Universities, TVET institutions, Regulatory agencies, MDAs mandated to undertake Research, Technology and Innovation activities private institutions and NGOs.

This module underscores the crucial role played by Science, Technology, and Innovation (STI) in the social and economic development as well as national security and public safety of a country leading to sustainable prosperity. Science, Technology, and Innovation cuts across all sectors hence the need for it to be integrated into, and coherent with, key aspects of national development, security and the well-being of citizenry

NACOSTI LAUNCHES ITS STRATEGIC PLAN 2023-2027

Figure 10: Launch of NACOSTI Strategic Plan 2023-2027 during the 3rd Multisectoral Conference and Exhibition on Research, Science, Technology and Innovation Conference

The National Commission for Science, Technology and Innovation (NACOSTI) has launched its Strategic Plan for the period 2023-2027. This comprehensive plan is set to steer Kenya's research, science, technology, and innovation (RST&I) sector towards significant advancements, particularly as the world rebounds from the disruptions caused by the Covid-19 pandemic and regional conflicts.

Developed during a period of global economic recovery, the new strategic plan acknowledges the crucial role that research, science, technology, and innovation play in addressing the aftermath of the pandemic and fostering resilience. With an eye on mitigating these disruptions, NACOSTI has crafted a roadmap that leverages RST&I for national recovery and growth.

At the heart of NACOSTI's strategic direction is its mandate: "To regulate and assure quality in the science, technology, and innovation sector and advise the Government in matters related thereto." This mandate, along with core values of customer focus, professionalism, teamwork, integrity, leadership, and fairness, underpins the Commission's vision of "A dynamic and transformational Science, Technology and Innovation System/Sector."

The formulation of this plan was a collaborative and consultative process, engaging both internal and external stakeholders. A thorough review of the previous strategic plan provided insights into past achievements and challenges, shaping the direction of the new strategy.

The plan aligns seamlessly with Kenya Vision 2030, the country's long-term development blueprint. This alignment underscores NACOSTI's commitment to transforming Kenya into a newly industrializing, middle-income nation with a high quality of life for its citizens by 2030. Additionally, the plan supports the Bottom-Up Economic Transformation Agenda 2022-2027, aiming to enhance the application of ST&I in key sectors.

NACOSTI's strategic objectives for the coming years are centered around several priority sectors, including agriculture, micro, small and medium enterprises (MSME) economy, housing and settlement, healthcare, and the digital superhighway and creative economy. The Commission has laid out a detailed implementation plan, complete with annual work plans to operationalize the initiatives under its Key Result Areas (KRAs).

Figure 11: Dummy book for NACOSTI Strategic Plan 2023-2027

In launching the new strategic plan, NACOSTI reaffirms its commitment to the highest standards of corporate governance. This commitment is crucial for the effective implementation of the strategic plan and for maintaining trust and accountability with stakeholders.

The Commission looks forward to continued partnerships and collaborations, which are vital for the successful implementation of the plan and the realization of a vibrant ST&I sector in Kenya. As Kenya navigates its path to becoming a knowledge-based economy, NACOSTI's Strategic Plan 2023-2027 serves as a pivotal guide, ensuring that science, technology, and innovation remain at the forefront of the nation's development agenda.

NACOSTI LAUNCHES ANNUAL STATUS AND PROGRESS REPORT ON RESEARCH, SCIENCE, TECHNOLOGY AND INNOVATION (RSTI) IN KENYA

Figure 12: Launch of Annual Status and Progress Report on Research, Science, Technology and Innovation (RSTI) in Kenya during the 3rd Multisectoral Conference and Exhibition on Research, Science, Technology and Innovation Conference

In a landmark development for Kenya's scientific and technological landscape, the National Commission for Science, Technology and Innovation (NACOSTI) has launched its inaugural Annual Status and Progress Report on Research, Science, Technology, and Innovation (RSTI). This comprehensive report, covering the year 2023, marks a significant milestone in assessing the nation's strides, challenges, and future potential in the realm of STI.

The report, mandated by the Science, Technology and Innovation Act of 2013, serves as a vital tool to evaluate Kenya's scientific research systems and provide strategic recommendations to enhance national STI capabilities. It highlights key areas such as policy frameworks, research funding, infrastructure, human capital development, and the impact of innovation across various sectors.

Speaking at the launch, officials emphasized the critical role of STI in driving economic growth, industrialization, and sustainable development in Kenya. The report underscores the importance of aligning STI initiatives with national priorities outlined in Vision 2030 and the Bottom-Up Economic Transformation Agenda (BETA), aimed at fostering a knowledge-based economy and improving the quality of life for all Kenyans.

Figure 13: Dummy book for Annual Status and Progress Report on Research, Science, Technology and Innovation (RSTI) in Kenya

Key findings from the report include insights into Kenya's investment in R&D, the state of STEM education, achievements in scientific publications and patents, and the digital readiness of the country. Despite notable advancements, challenges such as low private sector R&D investment and gaps in engineering specialization among STEM professionals have been identified, signaling areas for targeted intervention and policy refinement.

The launch event saw participation from stakeholders across government ministries, academic institutions, research organizations, and civil society, underscoring a collaborative approach to advancing Kenya's STI agenda. Experts and policymakers discussed strategies to leverage STI for addressing current socio-economic challenges and enhancing global competitiveness.

Looking forward, NACOSTI aims to use the findings and recommendations from this report to inform policy decisions, drive innovation-driven growth, and strengthen partnerships across sectors. The ongoing commitment to enhancing Kenya's STI ecosystem reflects a concerted effort towards achieving sustainable development goals and positioning Kenya as a regional leader in science, technology, and innovation.

NACOSTI LAUNCHES PRIORITIES IN SCIENTIFIC, TECHNOLOGICAL AND INNOVATION ACTIVITIES IN KENYA (STI PRIORITIES)

Figure 14: Launch of National Science, Technology and Innovation Priorities during the 3rd Multisectoral Conference and Exhibition on Research, Science, Technology and Innovation Conference

Science, Technology and Innovation are key enablers for moving the world onto a sustainable path. In this regard, the National Commission for Science, Technology and Innovation (NACOSTI) continues to play its pivotal and role of promoting, regulating, advising and coordinating all matters pertaining to Science, Technology and Innovation (STI) in Kenya in line with the STI Act. STI Act Section 6(1)(a) specifies 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.

Figure 15: Dummy book for the National Science, Technology and Innovation Priorities

Taking cognizance of Global, Regional and National issues, the following are the proposed scientific, technological and innovation priority activities in Kenya in relation to the economic and social policies of the Government, and the country's international commitments. These have been informed by SDGs, STISA 2024, Africa's Development Agenda 2063, Constitution of Kenya 2010, MTP III (2018- 2022) under Kenya Vision 2030, STI Act 2013, the Big Four Agenda and draft STI Policy. The proposed priorities in STI cover; R&D and Ethical issues; R&D facilities; STI infusion in county development plans; Investments and Financing STI and Research; Innovation, Technology Transfer and commercialization; Health & Bioeconomic Innovation; Leveraging STI for SDGs and Climate Change Action, Digital/Frontier Technologies to address SDGs and Disasters; Sustainable exploitation of Marine Science and Technology;

Scientific data collection and management; STI Institutional Reforms; Multi-agency Framework, and Response Strategies; STEM education and Training; Building Next Generation STI Workforce; STI Communication, Outreach, Advocacy and Diplomacy; Strategic International scientific cooperation and partnerships; Security for Society. This is submitted for consideration by the Committee.

NACOSTI SUBMITS ADVISORIES TO THE PUBLIC ON GMOS, OPEN UNIVERSITY STRATEGIES, AND LICENSING OF RESEARCH

Figure 16: Launch of Advisories to the Public on GMOs, Open University Strategies and Potential Impacts, and Licensing of Research in Kenya during the 3rd Multisectoral Conference and Exhibition on Research, Science, Technology and Innovation Conference

The National Commission for Science, Technology, and Innovation (NACOSTI) has released a series of important advisories aimed at guiding public policy and enhancing national development through informed decision-making. These advisories address crucial areas, including Genetically Modified Organisms (GMOs), strategies for Open Universities, and the licensing of research activities in Kenya.

GMO Advisory

NACOSTI's advisory on GMOs highlights the potential benefits and risks associated with their adoption in Kenya. The commission underscores the importance of a balanced approach, advocating for robust regulatory frameworks to ensure that GMO use aligns with national safety and ethical standards.

Open University Strategies and Potential Impacts

NACOSTI's advisory on Open University strategies highlights the importance of expanding access to higher education through innovative approaches. The commission emphasizes leveraging digital platforms and distance learning to overcome infrastructure challenges, making quality education accessible to all Kenyans, especially those in underserved regions. The advisory also discusses the potential of Open Universities to contribute significantly to national development by equipping students with skills that meet the demands of a digital economy and a globalized job market.

Research Licensing: Upholding Ethics

NACOSTI's advisory on the licensing of research emphasizes the necessity of maintaining high ethical standards. The guidelines

provided are intended to ensure that all research activities in Kenya are aligned with national priorities and contribute to the country's socio-economic development while protecting the rights of research participants.

These advisories are available to the public on the NACOSTI website (https://www.nacosti.go.ke/)

NACOSTI PROMOTES EVOLVEMENT OF THE NEXT GENERATION WORK-FORCE THROUGH SCIENCE, TECHNOLOGY AND INNOVATION OLYMPIAD AWARDS TO TOP HIGH SCHOOL STUDENT

Figure 17: Hands over a dummy cheque of Kes. 600,000 to the winning school

The National Commission for Science, Technology, and Innovation (NACOSTI) recently hosted the 2024 STIR Olympiad during the 3rd Multi-Sectoral RSTI Conference at Safari Park Hotel from May 7th to 10th, 2024, aiming to promote STEM education and foster a next-generation workforce skilled in Science, Technology, Research, and Innovation (RSTI). The Olympiad featured four main awards with participants from Karuri High School, Mangu High School, Alliance Girls High School from Kiambu County, and Githumu Boys High School from Murang'a. The participants were assessed by an independent panel of teachers from non-participating schools, NACOSTI, and an independent reviewer, focusing on syllabus-based questions in Mathematics, Physics, Chemistry, and Biology.

Figure 18: Wining schools receives an award

In the NACOSTI's Award on Science and Technology for Fast Tracking BETA worth KES 600,000, Mangu High and Alliance Girls emerged as the male and female winners respectively, each receiving a laptop, KES 100,000 in school fees, and KES 50,000 in school support. Karuri High secured the 1st runner-up positions for both male and female categories, while Githumu Boys and Alliance Girls took the 2nd runner-up spots.

Similarly, in Waziri's Excellence Award in Science Education Modernization (SEM), Githumu Boys and Alliance Girls again won, each receiving a laptop, KES 100,000 in school fees, and KES 50,000 in school support. Mangu High and Karuri High secured the first runner-up positions in the male and female categories respectively, while Githumu Boys and Karuri High took the 2nd runner-up spots.

The WRTI Award on the Use of Technology in Wildlife Research and Monitoring and the ICGEB Award on Biotechnology for Bio-Economy (BFB), each worth KES 190,000, were won by Alliance Girls, which included a laptop, KES 100,000 in school fees, and KES 50,000 in school support.

To celebrate these achievements, the NACOSTI team, led by Prof. Mabel Imbuga, personally visited each winner's school, aiming to recognize their excellence and inspire further exploration in Science, Technology, and Innovation (STI). The participants also highlighted the importance of Kenya's participation in international Olympiads and recommended expanding the competition to include CBC, TVET, and universities.

NACOSTI PRESENTS LIFETIME EXCELLENCE AWARDS TO KENYA' GREAT SCIENTISTS; PROF. WANGARI MATHAI, PROF. THOMAS ODHIAMBO AND PROF. CALLISTUS JUMA

The National Commission for Science, Technology, and Innovation (NACOSTI) gave a Lifetime excellence awards by recognising three (3 Posthumous) during the 3rd Multisectoral Conference that was held at the Safari Park Hotel on 7th – 10th May 2024.

The following is the list of three posthumous who were recognised and awarded:

Professor Thomas Odhiambo

Figure 19: Professor Thomas Odhiambo

Professor Thomas Risley Odhiambo was born on 4th Feb 1931 and died on 26th May 2003 in Mombasa Kenya. Thomas Odhiambo was a trained entomologist and environmental activist that valued and championed research and scientific development in Africa. In 1970, he set up the departments of entomology and agriculture at the University of Nairobi. His scientific pursuits include fourteen publications on the reproductive physiology of the desert locusts and similar efforts in tsetse flies that are both major pests plaguing Africa.

He observed that scientific research was lacking in post-colonial Africa and included among other proposals a plea to establish Centers of Excellence in Africa to bolster the otherwise "woefully small" scientific community in Africa. The idea gained traction and support from colleagues like Carl Djerassi (US) who collaborated with him to set up the International Center of Insects Physiology and Endocrinology (later Ecology) – ICIPE in Nairobi in 1969. Prof Odhiambo served as the Principal Director for 25 years. Today, ICIPE remains a leading center for scientific excellence and training.

His efforts led to the establishment of the Third World Academy – Trieste, Italy (1985), founded the African Academy of Sciences (1987), the Kenya National Academies of Science (KNAS) (1983) and led it till 1999. He also championed the establishment of the Academy Science Publishers and ICIPE Science Press, journals Science and its Applications and Discovery and Innovation. For posterities sake, Prof. Odhiambo promoted the need to involve children in science from early on, hence established ChiSci Scientific Publications and wrote six science books for children.

This year, The National Commission for Science, Technology and Innovation (NACOSTI) was delighted to honor Prof. Thomas Risley Odhiambo for his remarkable achievements in Entomology vision, ambition and commitment towards developing Africa's scientific landscape. Through his individual brilliance and devotion to the future of the continent, today we have a critical mass of scientific talent. His dedication to advancing knowledge, pushing the boundaries of what is possible in science and beyond continues to inspire many. His excellence and positive impact on humanity will be treasured across time!

Professor Wangari Maathai

Figure 20: Professor Wangari Maathai

Wangari Maathai, born on April 1, 1940, and passed away on September 25, 2011, in Nyeri, Kenya. She was a distinguished environmentalist, political activist, and women's rights advocate. Her life story is a testament to resilience, courage, and dedication to social and environmental causes. Maathai grew up in a rural village in Kenya, where she developed a deep connection with nature and witnessed the environmental degradation caused by deforestation and land degradation. Her passion for environmental conservation was cultivated during her formative years, inspiring her to pursue higher education despite facing numerous challenges as a woman in a patriarchal society.

Throughout her career, Maathai's activism intersected with various social and environmental issues. In 1977, she founded the Green Belt Movement, a grassroots environmental organization focused on tree planting, conservation, and women's empowerment. The movement aimed to address deforestation, soil erosion, and poverty while promoting community-based sustainable development.

In 2004, Wangari Maathai was awarded the Nobel Peace Prize for her outstanding contribution to sustainable development, democracy, and peace. The Nobel Committee recognized her as an "inspiration for many in the fight for democratic rights and especially for the rights of women."

Maathai's legacy extends far beyond her environmental achievements. She was a trailblazer for women's rights in Africa, breaking barriers, and empowering women to become agents of change in their communities. Her life and work continue to inspire generations of activists and environmentalists worldwide. but her vision and legacy live on through the ongoing work of the Green Belt Movement and the countless individuals and organizations she inspired to strive for a more sustainable and just world.

This year, The National Commission for Science, Technology and Innovation (NACOSTI) was delighted to honor Prof. Maathai for her remarkable achievements in Environment Conservation. Her dedication to advancing knowledge and pushing the boundaries of science has been truly inspiring. Her excellence and positive impact on humanity will be treasured for generations!

Professor Calestous Juma

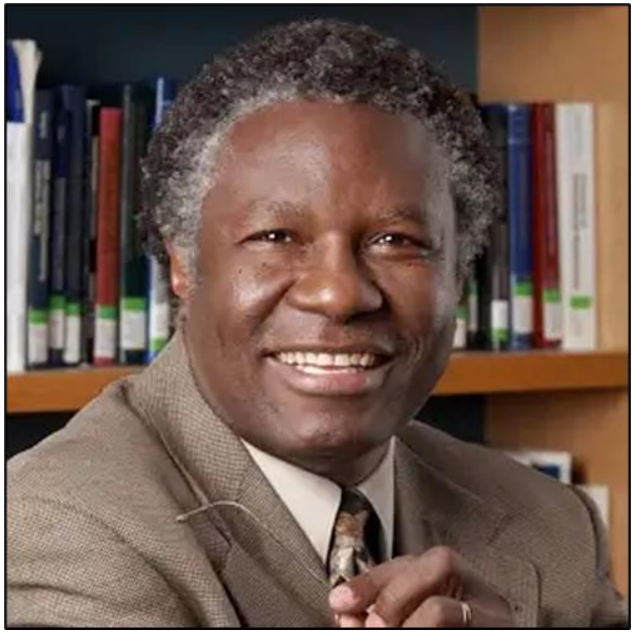

Figure 21: Professor Calestous Juma

Professor Calestous Juma was a renowned scholar, advocate, and thought leader in the fields of science, technology, and innovation for development. Calestous was born on June 9, 1953, and passed away on December 15, 2017, in Busia, Western Kenya. He grew up in a rural area where he developed a keen interest in science and technology, recognizing their potential to address pressing societal challenges.

He believed in the transformative potential of technological advancement to improve livelihoods, alleviate poverty, and foster inclusive growth, particularly in Africa. Juma's advocacy for evidence-based policymaking, innovation ecosystems, and the role of entrepreneurship in development continues to inspire scholars, policymakers, and practitioners worldwide. His work serves as a guiding light for those seeking to address complex global challenges through science, technology, and innovation. He left behind a profound legacy of scholarship, leadership, and advocacy. His contributions continue to resonate in academia, policy circles, and development efforts, shaping the discourse on science, technology, and innovation for generations to come.

During the 3rd Multisectoral conference this year NACOSTI, awarded Professor Calestous Juma a lifetime award for being a founder of the African Centre for Technology Studies (ACTS) and for his remarkable achievements in sustainable development. His dedication to advancing knowledge and pushing the boundaries of science has been truly inspiring. His excellence and positive impact on humanity will be treasured for generations!

CABINET SECRETARY, MINISTRY OF EDUCATION, HON. DR. EZEKIEL MACHOGU ISSUE CERTIFICATES OF REGISTRATION TO 12 NEW RESEARCH INSTITUTES

Hon. Dr. Ezekiel Machogu, Cabinet Secretary, Ministry of Education, issued Certificates of Registration to 12 new research institutes during the 3rd Multi-Sectoral Conference on RSTI, which took place at the Safari Park Hotel from May 7th to 10th, 2024, marking a significant development in Kenya's research sector. The heads of the twelve institutions were invited to the conference to receive their registration certificates.

This action aligns with the Science, Technology, and Innovation (STI) Act, which mandates that research institutions register with the National Commission for Science, Technology, and Innovation (NACOSTI) under Sections 16 and 17 and prohibits their operation without certification under Section 21.

List of 12 new research institutes

NO.	NAME OF INSTITUTION	INSTITUTION LOGO
1.	Innovations for Poverty Action	
2.	International Center for Tropical Agriculture	
3.	Vyxer Research Management Information Technology Consultancy Limited	
4.	International Cancer Institute	
5.	Kenya Legal & Ethical Issues Network on HIV and AIDS	
6.	mHealth Kenya	
7.	Wildlife Research and Training Institute	
8.	Women Educational Researchers of Kenya	
9.	Kenya Academy of Sports	
10.	African Centre for Technology Studies	
11.	Kenya Agricultural and Livestock Research Organization	
12.	Lion SightFirst Eye Hospital	
13.	Kenya Marine and Fisheries Research Institute	

PICTORIAL









IAEA PRESENTS STATE-OF-THE-ART EQUIPMENT TO TWO HIGH SCHOOLS UNDER THE AUSPICES OF NACOSTI

Figure 22: Prof. Walter Oyawa, DG, NACOSTI and IAEA's Director for the Division for Africa, Prof. Shaukat Abdulrazak presenting the Equipment to the Schools

The African Regional Cooperative Agreement for Research, Development and Training related to Nuclear Science and Technology (AFRA) is an intergovernmental Agreement established by African Member States to strengthen further and

enlarge the contribution of nuclear science and technology to socio-economic development on the African continent. AFRA activities cover a wide range of peaceful applications of nuclear techniques that contribute to achieving national and regional development goals.

The International Atomic Energy Agency (IAEA) provides crucial technical and scientific support to AFRA thus emphasizing its commitment to facilitating the success of AFRA in fostering nuclear science and technology advancements for the benefit of the African region.

RAF 0060: Educating Secondary School Students and Training Science Teachers in Nuclear Science and Technology is one of the projects under AFRA with Kenya as one of the participating member states. The project aims to educate secondary school students and train science teachers in Nuclear Science and Technology to reach out to the next generation of scientists and engineers. It intends to also demystify Nuclear Science and technology at the secondary school level by launching extracurricular teaching and laboratory activities.

With Kenya having a strong willingness to participate in the pilot phase of RAF 0060, two secondary schools were identified and targeted for the implementation of the pilot project in Kenya. These schools are Mama Ngina Girls High School in Mombasa and Thika High School in Kiambu counties. The Ministry of Education (MOE) in collaboration with the National Commission for Science, Technology and Innovation (NACOSTI) is required to launch the extracurricular teaching and laboratory activities as well as provide logistical support in the two schools.

Figure 23: During the 3rd Multisectoral Conference as the schools receive the equipment

Following the nomination of the pilot schools, two teachers attended a Training of Trainers on Nuclear Instrumentation Educational Kit in Vienna, Austria at the International Atomic Energy Agency (IAEA). Additionally, NACOSTI, as the AFRA National Coordinator, received Nuclear Science & Technology teaching kits from the IAEA, which were presented to the schools during the 3rd Multisectoral Conference and Exhibitions on Research, Science, Technology, and Innovation by NACOSTI's Director General, Prof. Walter Oyawa, and IAEA's Director for the Division for Africa, Prof. Shaukat Abdulrazak

NDU-K HOLDS A WORKSHOP ON SCIENCE, TECHNOLOGY AND INNOVATION MAINSTREAMING

Figure 24: Group Photo

National Defence University-Kenya (NDU-K) Deputy Vice-Chancellor (DVC) Finance & Administration, Major General Thomas Ng'ang'a, has urged University staff to adopt innovation and emerging technology to enable the University to offer practical solutions to mitigate the various security challenges and influence national security policy and strategy.

He said that NDU-K is committed to adapting to the evolving technology through advancing practical research and fostering a culture of excellence to bolster national security and development.

The DVC made the remarks when he presided over the official opening of a three-day training workshop on Science, Technology, and Innovation Performance Contracting Indicator at the University seat in Lanet-Nakuru. The training is facilitated by a team from National Commission for Science, Technology, and Innovation (NACOSTI).

"We gather today to discuss and strategize on a topic that is crucial not only to our institution but for the future of education and progress for the nation at large," he said.

The DVC said Science, Technology, and Innovation (STI) has evolved into an economic driver for growth, social development, and individual prosperity.

He affirmed the importance of the workshop saying that the partnership between NDU-K and NACOSTI would enrich the University's strategic vision to enable its alignment with national development objectives.

The event was attended by, among others, Major General (Rtd) Patrick Amogola, Directors, Heads of Departments, Senior Officers, Faculty and staff at the University.

Source: https://ndu.ac.ke/ndu-k-holds-workshop-science-technology-and-innovation-mainstreaming?fbclid=IwZXh0bgNhZW0CMTAAAR0eGOMORoFkTUB3ZuRk0tJQyJb7nnjPC-VFuUWbowTpecBN_QZvy8w9780_aem_mnCdLCU2nKX_TlhSK32LWw

PICTORIAL


NATIONAL DEFENCE UNIVERSITY
KENYA
NATIONAL DEFENCE UNIVERSITY-KENYA

KENYAN INVENTORS ADVISED TO PATENT THEIR INVENTIONS

Figure 25: Participants during a mentorship programme

Kenya's youths could be losing out on having their innovations patented due to failure to understand laws that grants them exclusive use and commercial benefit of their inventions.

According to Kabarak University Director research innovation outreach Dr Moses Thiga, some students preferred to sell their innovations to institutions or researchers at lower rates and return to the drawing board to develop others instead of moving around to have them patented.

While making a presentation during a mentorship programme for students drawn from Universities, Technical Vocational Education Training Institutes and youth polytechnics, Dr Thiga further observed another significant proportion of innovative students do not engage themselves in actualization of their ideas out of fear that their creations would be stolen by others.

"There is a need to sensitize young innovators on protection of their creative work. Apart from being aware of intellectual property rights, potential innovators should know the bodies that deal with property rights so that they can confirm the novelty of their ideas and the process of having those approved patented," he noted.

There are three main types of protection for innovation: copyrights (for original artistic expression like paintings, photos, books and songs), patents (mostly for original ideas in the scientific, medical, health and technology fields) and trademarks (mostly for graphics, logos, shapes, signs, sounds and even smells that distinguish products).

Dr Thiga admitted that Technical Vocational Education Training Institute, university and college students normally showcased noble innovations during various exhibitions countrywide but faulted them for disclosing more about the discoveries before they are patented.

"It is encouraging to witness hard work and creativity of the students across the County who have come up with innovative products including a variety of soft wares and mobile applications that have the potential to drive the Big 4 agenda," he added.

The Director disclosed that Kabarak University and Nakuru County Government were jointly exploring ways of encouraging innovation and the need for inventors to acquire intellectual property rights for their creations.

Dr Thiga called on the Kenya Industrial Property Institute (KIPI) and other relevant government bodies including enforcement agencies and institutions of higher learning to collaborate and take the same knowledge to the youth and protect their intellectual property.

"If all parties play their role, Kenya's ranking will improve in the Intellectual Rights Global Index. More crucially, our youth will reap maximum dividends from their intellectual investments and will be even more motivated to re-invest in their minds," he pointed out.

The devolved unit and the university have lined out a Central Rift innovation week to be held later October this year in Nakuru where industrialists, financial institutions and educational facilities are expected to showcase their products. Also invited are intellectual property lawyers and entrepreneurs.

Dr Thiga said students keen on innovations and entrepreneurs should seek patents before disclosing features of their innovations to the public in order to safeguard them against violation.

He said the applicants would enjoy monopoly over the production and marketing of the patented products once their application is approved.

He added that to own intellectual property rights; one must have registered with relevant institutions locally or where Kenya is a member, in order to qualify for protection.

Kenya Industrial Property Institute (KIPI) is mandated to administer industrial property rights and provide information to the public. Others include Kenya Plant Health Inspectorate Service, World Intellectual Property Organization and the African Regional Intellectual Property Organization.

County Information Communication Technology Director Mr. Leonard Kirui noted that the creativity and innovativeness of brilliant young Kenyans needed to be legally secured from imminent theft as there were numerous innovations being developed by the youth who end up being edged out at the commercialization phase of their ingenious mental outputs.

"As a country, we are slowly moving from an agricultural dominant economy to a knowledge based economy. Value and wealth will soon no longer be determined by acreage of land or heads of cattle owned but by mental assets possessed. Our youths cannot mount a formidable defense of their intellectual property from a position of misconception," added Kirui.

He said there were numerous online opportunities which innovative youth could leverage on to be self-employed.

According to the acting Director at KIPI Mr. John Onyango, innovations are catalysts to economic growth and therefore patenting the Innovations will offer more effective tools for knowledge sharing and transfer of technology.

Source: https://www.kenyanews.go.ke/kenyan-inventors-advised-to-patent-their-inventions/

INTERNATIONAL SCIENCE COUNCIL GOVERNING BOARD CALLS FOR SCIENCE AND SCIENTISTS IN AFRICA TO BE MOBILIZED AHEAD OF MAJOR UN CONFERENCE.

The Governing Board of the International Science Council (ISC) has gathered in Nairobi, Kenya ahead of the United Nations Civil Society Conference, which is the first of its kind to be held in the Global South and serves as a precursor to the Summit of the Future at the UN headquarters in New York this coming September.

The clear message coming from the International Science Council, which has more than 30 national and regional members on the continent across the natural and social sciences, and humanities, is that science continues to be underutilized as a pathway to achieve the Sustainable Development Goals.

The Governing Board, in collaboration with ISC Members the African Academy of Sciences (AAS), the National Commission for Science, Technology and Innovation (NACOSTI), and the Kenyan Academy of Sciences, used the opportunity to hear from distinguished voices promoting science on the continent, including Ambassador Macharia Kamau, a member of the ISC's Global Commission on Science Missions for Sustainability, and Peggy Oti-Boateng, AAS Executive Director and former science advisor at UNESCO.

"The International Science Council's vision and call to action aligns with the United Nations Summit on Shaping a Future of Global and Sustainable Progress, and the need for accelerated action on the SDGs" said Ambassador Macharia Kamau.

"As we are now more than halfway through the 2030 Agenda, we need to think big, be disruptive, and collectively empower science for sustainable societal transformations in the 21st century. This is why I am proud to be part of the ISC's Global Call for Science Missions for Sustainability – an urgent and bold initiative that aims to tackle complex sustainability challenges head-on. However, we must have voices from the African continent leading these challenges, as well as contributing to the global agenda from an African perspective," he added.

The Global Call aims to select up to five pilot programmes to test "mission science for sustainability" and is seeking consortiums, particularly from the Global South, to participate in a bid to accelerate action on the SDGs.

Peggy Oti-Boateng encouraged the ISC Governing Board to continue its work with ISC African members, particularly on the challenges of environmental and climate change and inequalities.

"We are a renewed African Academy of Sciences, and we are ready to promote the voices of African scientists at this critical moment for a sustainable planet," she said.

Speaking at the third Multisectoral Conference and Exhibition on Research, Science, Technology and Innovation hosted by the National Commission for Science, Technology and Innovation (NACOSTI), ISC President Peter Gluckman, made an opening address calling on the more than 300 participants to speak up for science on the African continent.

"Every one of us must promote trust in science. Scientists in Africa must be leading voices for open and fair data, and for open science, to build knowledge systems that drive action for a sustainable future, rather than divide us. This is what the Governing Board has learned in our continued engagement with science in Africa – we must see more Global South to Global North collaboration rather than the other way around."

The Multisectoral conference, overseen by Walter Oyawa, Director General of NACOSTI and ISC Governing Board member is a yearly conference which promotes facilitate national and international discourse to deliberate, network, partner, share experiences and resolve on how best to infuse or deploy Science.

"We were delighted to host the ISC Board at our conference, as it highlights the importance of international scientific diplomacy and collaboration," he said.

Anne Husebekk, the ISC Vice President for Freedom and Responsibility of Science also spoke at the conference on the issue of scientific diplomacy.

"Science diplomacy can easily be seen as a positive consequence of science. International collaboration between scientists may induce collaboration between politicians and end up as peaceful solutions to politically difficult questions,"

Salvatore Aricò, Chief Executive Officer of the ISC was buoyed by the hope and energy of science in Africa saying:

"The ISC is working at the global level to catalyse and convene scientific expertise, advice, and influence on issues of major concern to both science and society," he said Salvatore Aricò. "Advancing human development within sustainable planetary and social boundaries is the most important challenge for humanity and for science and we are excited to be collaborating with the African scientific community on these challenges."

The United Nations Civil Society Conference in Nairobi will amplify the ISC's key messages, providing a platform for civil society's insights and initiatives ahead of the Summit of the Future, where the Pact for the Future, the Global Digital Compact,

and the Declaration on Future Generations will be discussed. The ISC's involvement highlights the urgent need for collective action to achieve a sustainable planet, particularly through the empowerment of science and education.

About the International Science Council

The ISC, with its unique global membership that includes more than 250 international scientific unions and associations, national and regional scientific organizations, and young academies, has a significant footprint in Africa. The Council's African members based in Kenya, include the African Academy of Sciences (AAS), NACOSTI, and the Kenyan Academy of Sciences. These organizations share the ISC's vision of advancing human development within sustainable planetary and social boundaries, a mission that aligns with the urgent need for Africa's scientists and educational programs to address sustainability.

Source: https://council.science

ISC POLICY BRIEF: CREATING A STRONG INTERFACE BETWEEN SCIENCE, POLICY AND SOCIETY TO TACKLE GLOBAL PLASTIC POLLUTION

Plastic pollution has increased dramatically to reach even the most remote parts of our planet. It affects all natural environments from deep oceanic sediments to the atmosphere and agricultural soils, and threatens human health through plastic found in blood, the brain and breastmilk.

Over the past few decades, scientific studies have unveiled the mounting threats and risks posed by plastic pollution, which require immediate global action, but also a long-term and sustained scientific participation through a mechanism at the interface between science, policy and society. Current negotiations are underway to produce a legally binding

instrument to combat plastic pollution, including in the marine environment.

The International Science Council has developed a policy brief aimed at providing a set of functions and principles to guide the scope, objectives and institutional arrangements of such a process and facilitate the uptake of existing scientific knowledge for a strong science–policy dialogue.

Key messages

1. Plastic pollution is a rapidly accelerating and complex challenge that affects the entire planet. The versatile properties of plastics have led to increased production over the past 60 years, resulting in extensive accumulation of waste and growing risks. Overcoming this crisis requires urgent global-scale action drawing on the most up-to-date and multidisciplinary science.
2. Addressing global plastic pollution requires a systems approach – to comprehensively tackle the entire life cycle of plastic and associated multidimensional effects, and focus on integrated solutions that can address the interconnected nature of social, environmental and economic impacts.
3. Significant scientific advancements have deepened our understanding of some of the risks and consequences associated with plastic pollution, including for ecosystem, biodiversity and human health, and of the behaviour, fate and persistence of plastics in the environment. Ongoing research aims to explore emerging areas and fill gaps in knowledge, as well as ensure effective strategies for tackling the plastic pollution crisis.
4. Vested interests limit current actions to reduce plastic pollution and constrain efforts towards a complete approach. For instance, some approaches that involve recycling or alternative materials, and which claim to be 'sustainable', may have adverse consequences. Effective transformation therefore requires understanding the politics of the plastic crisis along with economic, sociological, anthropological and cultural dimensions.
5. Integrating rigorous scientific knowledge can significantly bolster ongoing negotiations, and reinforce the international instrument to tackle plastic pollution. Interaction between Member States, scientists and other stakeholders could be enhanced through a platform established under the Intergovernmental Negotiating Committee on Plastic Pollution (INC) Secretariat. The platform would aim to foster a two-way dialogue among stakeholders for jointly framing policy questions and needs, providing evidence, assessing solutions and communicating risks effectively.
6. A mechanism at the science–policy–society interface could guide and inform implementation and monitor effective progress on the international instrument. This mechanism would provide scientific guidance, support and up-to-date evidence from a wide range of scientific fields – guided by principles of independence, policy relevance, interdisciplinarity and inclusivity.

Source: https://council.science/publications/policy-brief-tackle-global-plastic-pollution/

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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

NACOSTI is ISO 9001:2015 Certified

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

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 the latest 30th November, 2021. The documents may be downloaded at NACOSTI Website www.nacosti.go.ke

- **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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Shadrack Kiptoo
Manager
Internal Auditor

Mr. Julius Mwangi
Principal Scientist,
Agricultural Environment and Natural Resources

Ms. Charity Muchoki
Principal Scientist,
Agricultural Environment and Natural Resources

Ms. Teresia Nyawira
Principal Scientist,
Biological and Health Sciences

Dr. Mary Onsarigo
Principal Scientist,
Biological and Health Sciences

Mr. Stephen Situma
Principal Scientist,
Physical, Industrial, Computing and Engineering Sciences

Ms. Evelyn Mbaabu
Principal Scientist,
Humanities & Social Sciences

Mr. Denis Yegon
Principal,
Licensing Officer

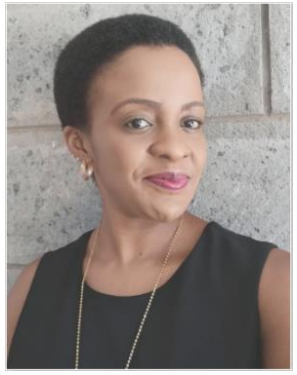
Harriet Kinya
Principal
Institutional Registration and Accreditation Officer

Carolyne Nekesa
Principal
Institutional Registration and Accreditation Officer

Veronica Ratemo
Principal
Human Resource Officer

Mr. Muhanji Ambani
Senior Administration Officer

Ms. Eunita Ogindo
Senior Accountant



Ms. Mildred Mugambi
Senior Corporate Communications Officer

Ms. Ruth Were
Senior Supply Chain Management Officer

Ms. Alice Otwori
Senior Scientist, Humanities & Social Sciences

Ms. Lilian Awala
Senior Scientist, Humanities & Social Sciences

Mr. David Amiani
Senior Scientist, Physical, Industrial, Computing and Engineering Sciences

Mr. Ezekiah Gatheru
Senior Scientist, Physical, Industrial, Computing and Engineering Sciences

Ms. Joan Chepleting
Research Quality Assurance Officer

Mr. Steven Indimuli
Research Quality Assurance Officer

Ms. Rael Adhiambo
Scientist , Agricultural Environment and Natural Resources

Ms. Pauline Kuyan
Accountant

Mr. Rollex Opondo
Records Management Officer

Mr. Phelix Awuor
Records Management Officer

Mr. Timothy Mutanda
Internal Audit Officer

Mr. Cyprian Karithi
Records Management Officer

Mitchell Gakii
ICT Officer

Robert Mobisa
Scientist,
Agricultural Environment and
Natural Resources

Ms. Olive Munavu
Scientist
Humanities and Social
Sciences.

Ms. Wairimu Ikua
Senior Officer Administrator

Ms. Christine Kayesi
Senior Officer Administrator

Ms. Millicent Okuku
Officer Administrator

Ms. Nahida Annar
Officer Administrator

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

Lencer Akoth
Licensing Officer

Juliane Apondi
Security Officer'

Ms. Ann Brenda Wangui
Scientist, PICES.

Mr. Patrick Omondi
Legal Officer

Mr. Evans Njuguna Kiuna,
Scientist, Humanities & Social Sciences

Mr. Kevin Olenyo
Driver

Ms. Adelide Muteitsi
Office Administrator

Ms. Faith Mutheu
HR, Officer

Ms. Celina Gacheri
Office Administrator

Mr. Philemon Oyoo
Driver

Mr. Christopher Opondo
Assistant Supply Chain Management Officer

Mr. David Mukhwana
Office Administrator

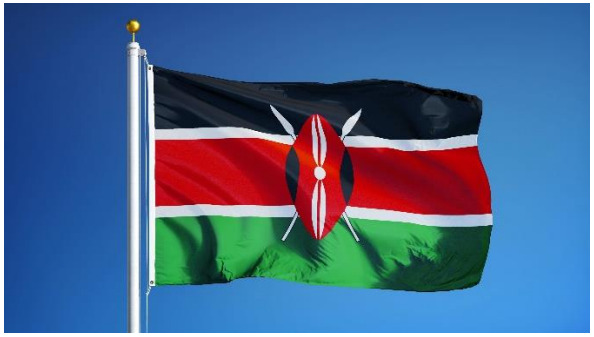
KENYA'S NATIONAL ANTHEM

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.

NACOSTI HOTEL AND CONFERENCE

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