

The Kenya We Are Building: Let's Make Innovation the Engine of Kenya's 21st-Century Economy

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Word from the Principal Secretary

Welcome to the first issue of the Science, Research and Innovation for Society Newsletter (SCI-RI NEWS).

Special accolades go to His Excellency President Dr. William Samoei Ruto for establishing a stand-alone State Department dedicated to Science, Research and Innovation. The State Department fully focusses on harnessing the potential in the new frontiers of growth and reposition them as catalysts to spur sustainable development.

Strategically domiciled under the Office of the Prime Cabinet Secretary, Ministry of Foreign and Diaspora Affairs, the State Department stands a better chance to formulate and implement policies, programmes and partnerships that will steer the

country forward.

The State Department is committed to effectively and efficiently communicate, inform and engage with the internal and external stakeholders on its mandate milestones.

From the onset, I wish to highlight the importance of science, research and Innovation communication to the society as key in the realization of Kenya's development aspiration.

As authorities in science, research and innovation, there's need to occupy the publishing space with facts to quench the publics who thirst for impactful publications. This will avoid leaving the society a starved constituency, prone to fabricated misinformation when we had the opportunity to stand at the right side of history through socialization of science.

PROF. SHAUKAT ABDULRAZAK, EBS
PS. Science, Research and Innovation

Prof. Shaukat Abdulrazak Calls for Green Port Innovation at Western Indian Ocean Forum



PS Shaukat delivering his keynote address during the special session on "Science support to ports and shipping in the Western Indian Ocean" at the 13th WIOMSA Symposium in Mombasa

Kenya's Principal Secretary for Science, Research and Innovation, Prof. Shaukat Abdulrazak, has urged stronger collaboration to accelerate sustainable transformation in the Western Indian Ocean's ports and shipping sector. Speaking during a special session on "Science Support to Ports and Shipping in the Western Indian Ocean" at the #WIO2025 conference, he commended organizers—including CSIR, GIZ, Prosper Blue, Our Blue Future, the Nairobi Convention Secretariat, and PMAESA—for convening a coalition capable of shaping the region's blue economy future.

Prof. Abdulrazak outlined Kenya's vision to become a living laboratory for green port transformation, where research is rapidly translated into practical solutions at the quayside. He emphasized that Kenya aims to serve as a testing ground for innovations that support decarbonization and sustainable maritime operations in developing-country contexts.

He further proposed the creation of a National Data Observatory for Ports and Shipping to support evidence-based decision-making and align with Sustainable Development Goal reporting. He noted ongoing efforts to mobilize partners such as the National Research Fund, KENIA, and Pwani University to conduct comprehensive urban impact assessments around Mombasa and emerging ports.

Prof. Abdulrazak reaffirmed Kenya's commitment to ensuring the Western Indian Ocean becomes a global leader in green, resilient, and equitable maritime development. "Our ports are gateways to opportunity, innovation, and transformation," he said.

By Denis Yegon

The State Department for Science, Research and Innovation

Mandate

01

Administer policies and programmes on Science, Research and Innovation

02

Develop framework for collaboration among research institutions, academia and industry

03

Promote Science Research and Innovation as key drivers of sustainable socio-economic development

04

Support national development goals through evidence-based interventions and multi sectoral partnerships

05

Strengthen institutional and human capacity in science, research and innovation

06

Coordinate funding mechanisms and incentives for research and innovation in collaboration with stakeholders

07

Facilitate upscaling, commercialization and practical application of research in both public and private sectors

08

In partnership with the Ministry responsible for ICT, guide the ethical strategic use of emerging technologies such as Artificial Intelligence for social benefit

09

Integrate indigenous and traditional knowledge systems into modern innovation practices

10

Establish and support research programmes, hubs and centers of excellence to advance scientific and technological progress

11

Foster public-private partnerships and international collaborations to enhance knowledge exchange and shared innovation

12

Strengthen Kenya's innovation ecosystem through global science and technology partnerships

The State Department for Science, Research and Innovation holds a Stakeholder Validation Meeting on the Proposed Nuclear Science Policy and Atomic Bill



Stakeholders posing for a photo during the Stakeholder Engagement Forum on the draft Nuclear Science and Technology Policy and the Kenya Atomic Energy Agency Bill bill in Nairobi.

Nuclear science has wide-ranging peaceful applications that contribute directly to Kenya's development goals and to the realization of Africa's Agenda 2063 and the Bottom-up Economic Transformation Agenda (BETA). Kenya has made tremendous strides but lacks a legal framework that can effectively support in the peaceful applications of nuclear science and technology.

The Principal Secretary State Department for Science Research and Innovation Prof. Shaukat Abdulrazak made the remarks during the official opening of the stakeholder engagement on the Nuclear Science & Technology Policy and The Kenya Atomic Energy Agency Bill. PS Shaukat said there is an urgent need for a policy that will guide the country and a dedicated agency to coordinate all the activities in the sector and showcase the impact Kenya has made in the sector. The PS observed that nuclear science and technology offer immense potential to address pressing challenges from hunger and disease to energy, poverty, climate change among others.

To address challenges in food security and nutrition, several Nuclear Technologies are in use including use of gamma irradiation on local seed varieties to induce desired changes in the plants' DNA. This leads to spontaneous mutations that generate varieties with increased production per acre or traits that are more tolerant to the harsh tropical climate and diseases. A good example is the mutation breeding techniques that was used to improve crop varieties, yields and reduced losses in rice, cassava,

maize, wheat and groundnuts, and reduced environmental degradation.

Nuclear medicine has become essential in diagnosing and treatment of some non-communicable diseases such as cancer. The statistics paint a grim picture on cancer diagnosis and treatment in our region, 70% of the cases are diagnosed late, leading to minimal survival chances. Cancer diagnoses uses tracer isotopes to identify the tumours and while cancer treatment uses high doses of radiation to kill tumour cells and shrink them.

Isotopic and radiation techniques help monitor the interaction between soil, water and nutrients in cropping systems as a basis for developing strategies that ensure the efficient use of water and fertilizer. While in water mapping, isotope techniques have been used to evaluate surface and groundwater interaction in the Kilimanjaro some parts of the country, this helps to inform the effective utilization of water resources and help avoid transboundary issues.

Nuclear power has a great deal to contribute as part of the low carbon- clean energy initiative. It contributes to SDG 7 (affordable and clean energy), 9 (industry, innovation and infrastructure) and 13 (climate action). Nuclear power is resilient, reliable and sustainable over a longer time after installation and can propel our industrialization vision.

By Dr. Stephen Situma



Participants during the The Pwani Innovation week 2025.

Kenya is entering a historic transformation decade in efforts to become a first-world industrial, digital, green, and globally competitive nation. To achieve this, science, research, innovation and youth must lead the transformation. That is why my State Department exists to connect knowledge to prosperity through research, innovation & technology policy, national innovation programs, commercializing university & research breakthroughs, strengthening innovation ecosystems and building a digital, science-driven economy powered by youth.

Under the theme: “Pwani Re-imagined: Youth Agency, Innovation & Sustainability of Coastal Economies.” Prof. Shaukat took part in the conference Pwani Innovation Week which was not only a conference but a laboratory for the future of Kenya since youth are the power and our coast is young, gifted, restless for opportunity.

This week demonstrated opportunities from blockchain for coastal trade & traceability, youth-led aquaculture innovations, digital safety & cyber-readiness to funding of green/blue startups in Deals Den.

The Coast is central to Kenya's future. Blue Economy alone could generate millions of jobs not in theory, but practical pathways including sustainable aquaculture & seaweed value chains, marine logistics & port innovation, coastal tourism & creative economy exports, ocean-based renewable energy and circular economy waste-to-wealth solutions.

The week begun by celebrating heritage and identity through the Utamaduni Village showcase because: “Pwani cannot build forward if it forgets where it comes from.”

The PS emphasized that the youth are not passengers in development, they are copilots. This is why Kenya Government puts youth entrepreneurship, skills, and technology at the core of economic growth. This is why we are decentralizing innovation from Nairobi to Mombasa, Lamu, Kilifi, Kwale, Tana River and the rest of the country. This is why partnerships with Swahilipot Hub and regional youth networks are top-tier national priorities.

By Joseph Mutua

Inaugural Staff Meeting for the State Department

Nations thrive when Science, Research, Technology & Innovation drive their development agenda, and we must invest in Research & Development to unlock Kenya's potential.

foster innovation, and drive national development - breaking silos and building synergies.

The team agreed on changed mindset and follow a new path on accountability, transparency and impact.

The Principal Secretary State Department for Science Research and Innovation Prof. Shaukat Abdulrazak joined his team during the four-day Crosscutting Training and Induction for all staff under the State Department on various programmes at Wildlife Training Institute. The Department is committed to coordinate STI policies, promoting R&D for socio-economic growth, building national capacity, strengthening funding and incentives, and promoting the ethical use of emerging technologies such as AI.

The PS appreciated the informative session from all staff, SAGAs and Directorates under the State Department who shared key programmes and initiatives designed to advance research,



Prof. Abdulrazak Shaukat, EBS, Principal Secretary for Science, Research and Innovation joined his staff during the four-day Crosscutting Training and Induction in Naivasha.

This marks the beginning of a coordinated national approach that aligns research, innovation & technology with the country's socio-economic transformation agenda

By Joseph Mutua

Kenya Hosts Researchers from 16 African Countries



Prof. Abdulrazak Shaukat, EBS, Principal Secretary for Science, Research and Innovation posing for a photo with the participants during UNESCO-TWAS-BMBF Capacity Building Workshop for Young Scientists in Africa, held in Nairobi.

The Government of Kenya recognises the significance of science, research and innovation towards sound policy development and addressing societal challenge, both present and emerging. The Principal Secretary for Science Research and Innovation Prof. Shaukat Abdulrazak Speaking Thursday during the capacity building workshop for Young Scientists in Africa, held in Nairobi said this initiative continues to strengthen the fabric of global science through inclusive, equitable, and transformative capacity-building.

Kenya proudly hosted 28 researchers from 16 African countries during a transformative research capacity building workshop aimed at fostering cooperation, supporting women in science, and aligning with the Sustainable Development Goals and Africa Agenda 2063.

“Impactful programme, supports early-career researchers through research grants, mobility, and practical training with a strong focus on Innovation, industry collaboration, and soft skills”

Prof. Shaukat Abdulrazak, EBS, PS, Science, Research and Innovation

With Africa's population set to double, the Seed Grant for New African Principal Investigators initiative is critical in building local scientific capacity to address complex societal challenges like climate change, public health, food security, and sustainable development.

The PS challenged participants to pursue impactful, policy-relevant research and to promote brain circulation, minimize brain drain advocating for future capacity building in science diplomacy for Africa.

Prof. Shaukat commended UNESCO-TWAS, BMBF, and all partners for investing in Africa's scientific future. Urging them to continue championing science as a key driver for sustainable development.

By Joseph Mutua

Empowering Women and Youth Innovators



Prof. Abdulrazak Shaukat, EBS, Principal Secretary for Science, Research and Innovation during interacting with the Innovators at the Gusii Innovation Week 2025.

The Government of Kenya through the State Department for Science, Research and Innovation is committed to strengthening research-innovation-commercialization linkages while expanding innovation infrastructure and funding.

Prof. Shaukat Abdulrazak, Principal Secretary for State Science, Research and Innovation speaking during the

Gusii Innovation Week 2025 (GIW2025) in Kisii and Nyamira Counties on Thursday said his office and its Agencies are commit to promoting AI and digital tools in agriculture and empowering youth and women innovators. Under the theme: “Resilient Agrifood Systems for Nutritional Security & Economic Sustainability,” the focus areas were Innovation, Investment, and Inclusion across the agrifood ecosystem. This presented GIW2025 as a flagship initiative to catalyze agrifood innovation and build resilient food systems.

Prof. Shaukat encouraged universities and innovation hubs to collaborate with Kenya National Innovation Agency (KeNIA's) commercialization and startup acceleration programs. He reaffirmed the Department's role in scaling local innovations from pilot

stage to market-ready ventures and linking them to national value chains.

The PS called on startups, innovators, and researchers to use the innovation week to prototype, pitch, network, and connect to funding and markets. He urged county governments, investors, and private sector to identify real-world opportunities during the Ecosystem Tour and commit to supporting innovation uptake. “I encourage universities and hubs (e.g., FIE_Labs) to deepen entrepreneurship training, technology transfer, and problem-solving aligned to local contexts.” Said Prof. Shaukat reiterating the promotion of innovations from the local context solutions relevant to Kisii and Nyamira value chains and climate realities, but scalable nationally.

By Joseph Mutua



Prof. Shaukat Abdulrazak, PS. Science, Research and Innovation went back to the community Mariakani Primary School, Kilifi County responding to H.E Dr. William Samoei Ruto vision to grow 15 Billion trees.



Prof. Shaukat Abdulrazak, PS. Science, Research and Innovation also at Mwareni Primary School, Kilifi County for the growing tree exercise.



Prof. Shaukat Abdulrazak, PS. Science, Research and Innovation during the Regional Training Course on Breast Cancer Imaging with participants from the 13 African countries in Nairobi, Kenya.



Prof. Shaukat Abdulrazak, PS. Science, Research and Innovation with H.E Salim Mvurya, Cabinet Secretary for Youth Affairs, Creative Economy and Sports of Kenya spearheaded Kwale County grassroots leaders' sensitisation programme on the National Youth Opportunities Towards Advancement (NYOTA) project.



Prof. Shaukat Abdulrazak, PS. Research and Innovation visited Sabatia Eye Hospital in Vihiga County.



Prof. Shaukat Abdulrazak, PS. Science, Research and Innovation represented CS. Ministry of Education, Hon. Julius Migos Chief Guest during the 13th Graduation ceremony at Pwani University. He was joined by Fikirini Jacobs, PS. Youth Affairs & Creative Economy.



Prof. Shaukat Abdulrazak, PS. Science, Research and Innovation visited Kakamega High School and gave a motivational talk to students and interacted with staff.



Prof. Shaukat Abdulrazak, PS. Science, Research and Innovation delivered a keynote address during the Inaugural Circular Economy Summit, Nairobi, Kenya.



Prof. Shaukat Abdulrazak, PS. Science, Research and Innovation had a productive conversation with Vice-Chancellors & DVCs & Principals from public universities in Nairobi, Kenya.



Prof. Shaukat Abdulrazak, PS. Science, Research and Innovation during the launch of the Good Research Management Practice in Nairobi, Kenya.

COLLABORATIONS AND PARTNERSHIPS

PRESIDENT WILLIAM RUTO AWARDS NACOSTI “BEST INNOVATION & INVENTION STAND” AT THE 2025 NAIROBI INTERNATIONAL TRADE FAIR

NACOSTI



His Excellency DR. William Samoei Ruto present a trophy to Dr. David Ngigi, Ag. DG NACOSTI for their “Best Innovation & Invention Stand” At The 2025 Nairobi International Trade Fair

The National Commission for Science, Technology and Innovation (NACOSTI) participated in the 2025 Nairobi International Trade Fair held from the 29th Sept – 5th Oct at the Jamhuri Grounds under the theme “Promoting Climate-Smart Agriculture and Trade Initiatives for Sustainable Economic Growth.” The event brought together ministries, state agencies, private sector enterprises, innovators, entrepreneurs, students, and global partners to showcase cutting-edge capabilities in trade, technology, and innovation.

Dr. David Ngigi, Ag. Director General received the award on behalf of the Commission during the Awards Ceremony. He encouraged the team to seek more excellence and ensure That Kenya achieves the targets set out in the Vision 2030, Bottom-Up Transformation Agenda, Africa’s Agenda 2063 and the STI Priorities. He

also used the occasion to engage stakeholders on efforts to strengthen research ethics, enhancing linkages between research, academia and industry, promoting youth-led innovation through mentorship and encouraging collaborations to increase funding through national and international research efforts.

Owing to the immense efforts to avail services to the people, the commitment to make research licensing and regulation efficient and support for innovators, President William Ruto honoured NACOSTI with the trophy for the “Best Innovation and Invention Stand.” The recognition goes a long way in honouring and encouraging Commission staffers to seek more excellence in automation, promotion and advisory, prototyping novel ideas and innovations, as well as creating an enabling environment for enhanced research-to-market linkages.

The Commission used the event to interact with its clients including researchers, students, innovators, private sector players and potential partners, while showcasing its contribution to national growth and development. Those who visited the stand were taken through the innovative approaches put in place to make service delivery more seamless and efficient. These innovations include the Research Information Management System (RIMS) which allows researchers from across the country and the world to access research licences with minimal computing knowledge.

The other critical tool demonstrated at the Fair was the STI Mainstreaming Indicator Tool that allows MDAs to submit their quarterly reports through a portal that makes the process easy and the analysis to inform policy more meaningful. Further, NACOSTI showcased its mandate, services, and contributions to research, capacity building, regulation, and coordination through the partners implementing the STI Priorities instituted by the Commission which attracted much publicity and visibility for the exhibitors.

The recognition at the Nairobi International Trade Fair builds on NACOSTI’s track record in regulations, promotion, coordination and advisories on matters related to RSTI and the impact these have on the people of Kenya. NACOSTI acknowledges the support of its partners, including the National Research Fund (NRF), the Kenya National Innovation Agency (KENIA), universities, innovators and researchers that made this possible.

By Harriet Kinya

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