



# *Seku News*

A Newsletter from the Office of the Vice-Chancellor

## SOUTH EASTERN KENYA UNIVERSITY



**SEKU Takes Steps to Combat COVID-19**

**US-based Science Agency to Equip SEKU Labs**

**SEKU Student Wins International Research Grant**

**SEKU in Team to Pioneer Bo-economy Education in Africa**

*NOVEMBER 2020 - JANUARY 2021*

## *Our Vision*

To be a globally competitive centre of excellence in teaching, research, innovation and service

## *Our Mission*

To provide quality education through teaching, research, extension, innovation and entrepreneurship with emphasis on dry land agriculture, natural resources and environmental management

## *Core Values*

Professionalism

Innovation

Integrity

Freedom of thought

Teamwork

Respect for conservation of environment

## *Our Motto*

Arid to Green---Transforming Lives



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## Editor's Note

Once again, the editorial team extends our warm welcome to our readers to yet another issue of *SekuNews*. As usual we are delighted to share with SEKU stakeholders the activities that have preoccupied the University community in the past couple of months.

The University Community, like other Kenyans and the rest on the global community, has remained in the grip of COVID-19, with attention and resources being directed towards finding solutions to the worldwide challenge.

The University played host to the Principal Secretary for the Department of University Education and Research, who visited the Main Campus to among other things assess our readiness to reopen after closure occasioned by the outbreak of COVID-19. Around the same time SEKU students participated in the regional drama festivals where they put up sterling performances, only for their progress to be curtailed by the advent of the novel corona virus which saw all public activities suspended.

Following the outbreak of COVID-19, and partial suspension of activities various departments of the

University came up with innovations to combat the global pandemic.

The department of Physical Sciences embarked on the production of hand sanitizers while the School of Engineering and Technology launched the production of face masks. The two innovations have now been upscaled to commercial level.

The University also continued to forge ahead with strategic collaborations which have seen it enter into important agreements with key global partners. The University is set to receive laboratory equipment form the US based Seeding Labs.

In the same vein, the students and staff, through the various research projects have engaged the local communities in livelihood enhancing research activities.

*Osir Otteng*

# Messages from the Vice-Chancellor

This is yet another issue of our corporate newsletter through which we share with our stakeholders what we are doing in various fronts as we strive towards the fulfillment of our mandate to provide quality education through teaching, research, extension, innovation and entrepreneurship.

The University, like all other institutions in the country and elsewhere in the world, is just coming to terms with the realities of the novel COVID-19, which hit the world early this year leading to near total disruption of operations in many sectors, including education.

While the pandemic is still with us and may be for some time to come, we at South Eastern Kenya University, are working to absorb the shock and adjust to the new normal in all spheres of our operations

We have put in place necessary measures to combat the pandemic, including all the health ministry-prescribed protocols to guarantee the safety of staff, students and visitors.

However, despite its devastating nature, the COVID-19 has served as an eye opener to us in many areas, helping us to see things from different lenses and angles altogether.



*Prof. Geoffrey Muluvi  
Vice-Chancellor*

We have gained important insights into the great potential of technology in driving our teaching and research activities, besides day-to-day operations, something that we shall carry beyond the pandemic.

The University has adequately invested in ICT to ensure remote teaching using technology. Therefore, we shall henceforth blend both physical and digital learning for students' ease and convenience of learning.

However, the adoption of this "new normal" calls for flexibility and a change of mindset by all players, including students, staff and parents.

I wish to thank all the stakeholders especially the staff who have risen to the challenge of COVID-19, through cutting-edge innovations, such as the hand sanitizers and face masks.



# SEKU Takes Steps to Combat COVID-19

South Eastern Kenya University, as a community is sparing no effort in combating the spread of the corona virus. The University has put in place elaborate measures to combat the spread of Covid-19 ahead of the reopening of tertiary institutions.

The Vice-chancellor, Geoffrey Muluvi, says that SEKU is working to ensure the safety of students in line with the Ministry of Health protocols.

The University, through the department of physical sciences has kicked off the production of hand sanitisers for the more than 10,000 students.

The hand sanitizers, which have been approved by the Kenya Bureau of Standards (KEBS), were officially launched by the Vice-Chancellor, Prof. Muluvi on Wednesday, 22nd July, 2020. The Vice-Chancellor lauded the Department for being proactive and taking the frontline in the fight against the virus.

“As a research oriented institution SEKU is making its contribution towards finding solutions to the novel corona virus. We are very proud of our department of physical sciences which has taken this bold step to come up with this product, an important contribution to the war on COVID-19” said Prof. Muluvi.

According to Dr. Stephen Musyoka, who is leading the department's team, at the rate of up to 1,000 500-millilitre bottles per day, the University can satisfy the needs of both staff and students and sell the rest for income.

Also standing up to be counted is SEKU's department of clothing and textile, which has embarked on the mass production of surgical masks with a production capacity of 1000 masks a day. Some of the masks, which create a physical barrier between the mouth and nose of the wearer and contaminants in the immediate environment, are already in use by members of staff.

At the same time dispensers have been put up at all entrances for sanitisers, liquid soap and water

To ensure minimal physical contact between lecturers and students, all the departments at the university have digitized their curriculum for remote e-learning.

“The University has adequately invested in ICT to ensure remote teaching using technology. We shall blend both physical and digital learning for some of our courses.



*Vice -Chancellor, Prof. Geoffrey Muluvi (Second from Right), flanked by a section of the University Management, displays the SEKU sanitizer.*

“Our University is involved in research that is why we challenged our lecturers to come up with a hand sanitizer that meets all the standards and is safe for use. We have already received a certificate of approval from the Kenya Bureau of Standards and we are now embarking on mass production of the products,” Prof. Muluvi said, adding that they had also acquired thermo guns for temperature monitoring.

To augment the University's teaching and research, the buildings at the Wote and Kitui Town campuses, as well as the School of Humanities and Social Sciences at the Main Gate will soon be ready for use.



*A Team from the tailoring department prepare the SEKU face masks*

# Education Principal Secretary in Maiden Visit to SEKU

Principal Secretary, State Department of University Education and Research in the Ministry of Education, Amb. Simon Nabukwesi, visited South Eastern Kenya University in September on a fact finding mission.

Mr. Nabukwesi and his entourage were received at the University's Main Campus by members of the Management, led by the Vice-Chancellor, Prof. Geoffrey Muluvi.

The PS used his visit to check the University's readiness for re-opening following closure in March this year on account of COVID-19.

The team first visited the Kitui Town Campus, whose state-of-the-art tuition and office building is nearing completion, followed by the upcoming School of Humanities.

The PS, who was accompanied by, among others, the Ministry's Director for University Education, Mr. Darius Ogotu and the Chief Finance Officer, Mr. Samuel Mugambi, further inspected the classrooms, hostels, catering facilities and Health Unit at the Main Campus.



*The Kitui Town Campus Administration & Tuition Building*



*Principal Secretary, Amb. Simon Nabukwesi (Left), is conducted on a tour of the University by Vice-Chancellor, Prof. Geoffrey Muluvi (Right).*

He expressed satisfaction that the University has complied with almost all COVID-19 control protocols.

The team also visited the Departments which are currently working on the mass production of masks and hand sanitizers which will come in handy once the university is reopened.

The PS commended the University for the initiatives, which he noted, would, go a long way in helping the University earn money while combating the pandemic.

Addressing University staff after completing the tour, Amb. Nabukwesi expressed his satisfaction with the strides the university has made to ensure compliance with the Ministry of Health guidelines, and urged the University management to work with haste to put in place the remaining measures to enable resumption of full operations.

"The University is 85% ready for reopening; only a few things need to be firmed up to ensure full compliance," said Amb. Nabukwesi.

The PS said that the upcoming two campuses and college will be an important addition to the much needed infrastructure at this time when the COVID-19 pandemic has social distancing a prerequisite for physical provision of learning.



# It's All Joy as SEKU-Kwa Vonza Road is Completed

***"If there is a nice road to your destination, you are lucky; if there isn't any, you are even luckier because you will have the chance to be a road-creator"*** This quip by Turkish playwright Mehmet Murat ildan makes much sense to the Management and pioneer staff and students of South Eastern Kenya University.

The completion of the 15-kilometre SEKU-Kwa-Vonza road has sparked joy and celebration among the employees and students of South Eastern Kenya University, who have long endured untold suffering due to poor roads.

When they reported here at the inception of the University College, SEUCO, the staff and students found nothing to write home about in terms of a road network. To them a good road was a dream far off in the horizon; a dream whose realization, some of them could not wait for.

A conversation among pioneer staff who joined the institution in its early days as a university college would not be complete without the narration of treacherous state of "that road."

A lecturer who joined the then SEUCO in 2010 reminisced thus: "Back then, getting a vehicle to or from SEUCO was not easy; and if you did, it was an old ramshackle that you were not sure would get you here. With the poor state of the road, nobody could have his new bus on this road. Even we who had cars couldn't dare bring them on that road."

But now, with the road upgraded to bitumen (tarmac) standard, transport has been greatly improved. A journey to SEKU from the nearby Kwa-Vonza township, which took over one, hour has been reduced to under 20 minutes on the smooth stretch that traverses the vast panoramic university land. And travelers now have the luxury of choosing which vehicle to board at an affordable cost.

In his Zoom address to the new students during this year's matriculation ceremony in September, the Vice-Chancellor, Prof. Geoffrey Muluvi, extolled the newly completed road is a major boost to the student's academic and social life, as they would now move in and out of the Campus without worry about transport.

"The transport challenges, which have been with us for a long time will now be a thing of the past," remarked Prof. Muluvi, as he announced the completion of the road, which has been constructed by the national government through the Kenya Rural Roads Authority.

The road is also a major boost to other stakeholders such as business people, who can now reach the University with ease. The new development has also relieved the staff of the nagging wear and tear on their personal vehicles.



*A first year student takes a photo of self on the SEKU Kwa Vonza Road*

# Infrastructure Projects on Course To Completion

South Eastern Kenya University is keeping in step with its development agenda. As a young institution, infrastructure development is key and the University has embarked on an ambitious plan to construct two satellite campuses and one college. Speaking when he conducted senior ministry of education officials on a tour of the University, Vice-Chancellor Prof. Geoffrey Muluvi said that all the three projects will be completed by the end of this year.

The Vice Chancellor said that the impending handing over of the three buildings will be a major boost to the university quest to expand learning facilities for ease of learning.



**Kitui Town Campus building**

“The buildings will come in handy especially with the social distancing requirement as a result of the COVID-19 pandemic,” said Prof. Muluvi.

The Vice Chancellor told the team, led by Principal Secretary, State Department for University Education and Research, Amb. Simon Nabukwesi, that the projects were progressing smoothly and once handed over will be put into immediate use.

Amb. Nabukwesi commended the University Management for the proud utilisation of government funding, a fact that, he said, has ensured that the buildings are up to standard and specifications.



**College of Education, Humanities and Social Sciences building**

Once fully operational, the two campuses and college will help the University address the growing demand for quality education in the region.

Located at the Main Campus' main gate, the College of Humanities and Social Sciences is envisaged to house the current School of Education, Humanities and Social Sciences; and the School of Business and Economics. The College is conveniently located to cater for those seeking part time education through weekend or evening classes as it is easily accessible from Kwa-Vonza market.



**Wote Town Campus building**



# SEKU Don Plunges into COVID-19 Inquiry

On 31<sup>st</sup> December 2019, the Wuhan Health Commission, based in Hubei Province of China sent out an alert to the National Health Commission, China Center for Disease Control and Prevention (CDC), and the World Health Organization (WHO), concerning 27 patients who had a kind of pneumonia of unidentified origin. Reports of this new disease had first been issued on 8<sup>th</sup> December 2019. Most of the patients were either working or living near Hunan Seafood Market in Wuhan. At that time, a coronavirus named **2019-nCoV** by WHO, was identified from throat samples on 7<sup>th</sup> January 2020. However, the Coronavirus Study Group called this virus severe acute respiratory syndrome coronavirus 2 abbreviated as **SARS-CoV-2**. Later, WHO called the disease caused by this virus "coronavirus disease 2019", to be globally abbreviated as **COVID-19**. The disease has symptoms ranging from flu-like illness to full-blown pneumonia. The SARS-CoV-2 spread rapidly across the world, starting with Thailand, which reported the first SARS-CoV-2 outside China.

On 30<sup>th</sup> January 2020, WHO affirmed SARS-CoV-2 as a public health emergency of international concern (PHEIC), prompting research institutions all over the world to focus their attention on virology. SEKU joined researchers globally in working to understand the virus' origin, sequence and epidemiology. The University's Prof Josphert Kimatu enrolled in two courses, separately organized by WHO, and London School of Hygiene and Tropical Medicine on SARS-CoV-2. WHO's training was mainly on health emergencies, infection prevention and

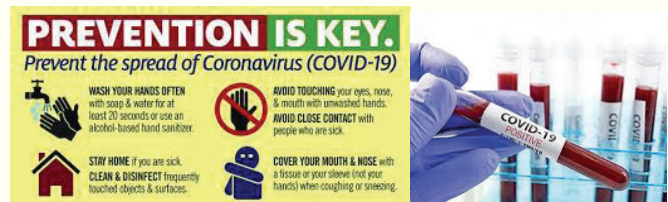
control (IPC) for COVID-19, while the other focused on COVID-19 with details on tackling the novel Coronavirus.



*Prof. Josphert Kimatu*

Prof. Kimatu embarked on analyzing the antibodies assay reports from various institutions in Africa, leading to the publication of a research paper that recommended that schools in Africa could be opened in September 2020. Other conclusions from his research analysed why Africa had gone against the prediction of global scientists by achieving immunity faster than it was expected. This enabled Africa to avoid the predicted COVID-19 pandemic related deaths.

Prof. Kimatu, however, cautioned that there was need to keep the precautions of protecting the old and the chronically sick people from the SARS CoV-2 virus exposure. Later, in July, he published another paper on the analysis of the WHO guidelines and their impact on the immune system. The paper titled **The negative effects of the WHO COVID-19 prevention guidelines on the human immune system** evaluated the WHO guidelines on wearing of masks, hand sanitization and social distancing and their effects on the human immune system by showing that microbes had a significant capacity of influencing health by being immune modulators through their cell components or other cellular metabolites. This study proposed a microbiome targeted therapeutics strategy to involve the role of immune system dynamics in the fight against COVID-19.



# SEKU Students Soar in Regional Drama Fete

Students of South Eastern Kenya University put up a sterling show at the 61<sup>st</sup> Central and Eastern Regions Universities Drama Festivals, held at the Kitui Campus of Kenyatta University.

The theme for the years Festivals was "*Promoting Moral Responsibility in Society through Theatre and Film*" and all the performances were building on the year's theme. The event was organized by the Ministry of Education, Science and Technology through the office of the Executive Secretary of Kenya National Drama and Film Festival.

The event features drama, film, comedy, modern dances, dramatized narratives, cultural dances among many others. This is an important opportunity for the learners of the institutions of Higher Learning to showcase talent and enhance positive inter-university relations. The Festival was a competition of stage performance activities and films competition. Its main objective was to impart lifelong skills in the students enrolled in institutions of higher learning through participation in film, drama and theatre related activities.

SEKU was represented in various categories of the competition; Creative Cultural Dance, Modern Dance, Spoken Word, Solo Verse, Stand-up Comedy and Narrative. The SEKU groups staged sterling performances in their categories.



*SEKU troupe displays talent in traditional African dance*

# US-based Science Agency Set to Equip SEKU Laboratories

South Eastern Kenya University is set to benefit from laboratory equipment from Seeding Labs, a US-based non-governmental organization.

SEKU is one of the 18 outstanding universities from 10 countries across the globe chosen to receive scientific equipment through the Seeding Labs 2020 "Instrumental Access" program.

The equipment, to be hosted by the Department of Life Sciences in the School of Pure and Applied Sciences, will aide research in the different academic departments at the University.

Through Instrumental Access, Seeding Labs makes high-quality laboratory equipment and supplies available to university departments and research institutes in developing countries, with the aim of "helping create sustainable scientific infrastructure that increases research capacity and empowers every scientist to change the world."

SEKU and the 17 other awardees were selected from a pool of 58 applicants from 20 countries, through a rigorous vetting process, where a clear outline of the ways that an infusion of lab equipment would remove barriers to STEM education and research at their institution was the overarching determining factor.

According to Christina Viola Srivastava, Director of Programs at Seeding Labs: "Our 2020 Instrumental Access awardees were selected for their potential to solve problems and change lives through science."

The 2020 Instrumental Access awardees were drawn from South Asia, West Africa, Southern Africa and Eastern Africa. From East Africa SEKU was among the five beneficiaries, with the only other Kenyan university being Taita Taveta University.

The Instrumental Access program expands critical infrastructure that enables scientists to develop solutions to the most critical challenges facing their communities and the world, including: deploying effective responses to emerging public health threats, like [COVID-19](#); confronting non-communicable and infectious diseases, such as cancer and malaria; ensuring that food supplies remain stable in a changing climate; and innovating to power developing economies while safeguarding the environment and public health.

According to Ms. Srivastava, the equipment, to be shipped to the 2020 Instrumental Access awardees, will give hands-on opportunities to students and accelerate research for faculty members across the beneficiary institutions.

SEKU's Director of Research, Innovation and Technology Dr. Carol Hunja, is upbeat that the equipment will support research and education across agriculture, biology, chemistry, engineering, water, geology, health and other areas. "Access to modern labs is essential for preparing the next generation of scientists, healthcare workers, engineers, farmers, educators, policymakers, and community leaders.



*Students in a practical science session*



# SEKU in Global Consortium for Capacity Building

South Eastern Kenya University is alive to the reality that knowledge transfer is an inevitable process in higher education where research outputs are largely associated with the production of higher degree holders.

The supervision of postgraduate students is therefore a core duty of academics and is a measure of academic output. Supervision not only transfers research and related skills, but is also an intensive and interconnected form of educator-student engagement.

The role of the supervisor in providing a supportive, constructive and engaged supervision process is important in the development of next generation of scholars with right education and skills mix to fulfil the future needs of the academia. The underlying principle of student support during supervision is that an experienced supervisor will be able to move through the learning processes with the student as appropriate.

As the student gains competence in the basic skills of conducting research in a particular field of study, he or she will glean a deeper understanding of the nature and reality of that field.

In light of the above, SEKU is investing in imparting apt knowledge to its postgraduate members of teaching staff through the Creating Postgraduate Collaboration (CPC) project. This is an initiative in which SEKU is a member and, working in collaboration with eight other universities – six in Africa and three in Europe.

The setup is informed by an overall realization that postgraduate supervision is a complex pedagogy and requires significant understanding of the field of study, knowledge creation, and power relations, alongside an awareness of how students take on the practices required for success.

The project will therefore in the period running to 2023 take the SEKU staff through all key aspects of supervision and introduce them to a vibrant community of researchers from Belgium (Antwerp), Kenya (Maseno, Moi and, SEKU), South Africa (Rhodes and Venda), Turkey (BOUN), and The Netherlands (VU Amsterdam and ISS). The project is funded by the EU Erasmus+ Programme.

So far, the CPC project has trained the entire Board of Post Graduate Committee on *Effective Post Graduate Supervision*. The take is that the skills imparted will be cascaded to the members of post graduate teaching staff in respective schools.

The SEKU director of ICT and the chair of the Hydrology and Aquatic Sciences respectively also attended two other courses directed towards the SEKU having in-house expertise how to *Kickstart Your Career: Academic Skills During and after University* and embracement of *A Multidisciplinary Approach to Artificial Intelligence*.



*Members of the CPC implementation team during the inaugural meeting in Istanbul, Turkey.*

## SEKU Teams up with Peers to Promote Bio-economy Education in Africa

South Eastern Kenya University has joined hands with other institutions of higher learning in Africa and Europe to strengthen bio-entrepreneurship in sub-Saharan Africa.

Operating under the banner PBL-BioAfrica, the collaborative project, which brings together three Kenya universities, and two institutions each from Zambia and Finland, seeks to strengthen bio-economy through promoting problem-based learning, entrepreneurship, innovation and digital learning methods.

Speaking during the virtual inaugural seminar in November, the project's manager, Dr. Eija Laitinen, said PBL-BioAfrica is for reforming bio-economy curricula with a view to improving graduates' work-life relevant competence.

"We aim at strengthening the students' ability to tackle global sustainability issues," said Dr. Laitinen, who is also the Principal Research Scientist at the Bioeconomy Research Unit at HAMK.

The project, coordinated by Häme School of Applied Sciences, is part of the Finnish Higher Education Institutions Institutional Cooperation Instrument (HEI ICI) programme for building higher education capacity in the developing world.

According to Florence Nakayiwa, Deputy Executive Secretary at the Regional Universities Forum for Capacity Building in Agriculture (RUFORUM), digital learning and teaching will facilitate reaching a large number of young Africans.

Dr. Nakayiwa says that although pioneered only in five Kenyan and Zambian universities, "best learning practices will be disseminated to the wider Sub-Saharan Africa through RUFORUM's network of agriculture universities. RUFORUM has 129 member higher education institutions from 38 African countries.

SEKU's dean of School of Agriculture and Veterinary Sciences, Dr. Julius Kilungo, is upbeat about the project, saying the University stands to gain through the envisaged reorientation of agriculture curricula, to instill into learners an entrepreneurial mentality.



**Dr. Julius Kilungo**

"Food deficit in Kenya is a big problem which has been exacerbated by the general lack of entrepreneurial skill among agriculture graduates, who have no means of turning their knowledge into money.

PBL-BioAfrica has come in to plug this hole by creating the nexus between the farm and money, said Dr. Kilungo, who is coordinating the project in SEKU.

He says PBL-BioAfrica will give students an insights into the real world of agribusiness, where the focus education is not to package them for employment but, instead to create entrepreneurs in them.

The project has adopted a unique approach by incorporating communication experts from all the implementing partners with a view to ensuring that its activities and outcomes are disseminated to stakeholders in appropriate manner.

Funded by the Finnish Government's Ministry of Foreign Affairs, PBL-BioAfrica includes South Eastern Kenya University; Egerton, and University of Nairobi, all from Kenya; University of Zambia; Mulungushi University (Zambia); Aalto University, (Finland); and Häme School of Applied Sciences, Finland (Finland). Other partners are RUFORUM, (Finnish University Partnership for International Development (UniPID); Accelerated Growth for SME's Zambia (MFA-funded AGS programme); and local operators in Kenya and Zambia.



*SEKU staffer, Mr. Dennis Obochi tends spinach crop at the University Farm. The PBL-BioAfrica project seeks to infuse entrepreneurship in the entire spectrum of agriculture*



# SEKU Student Wins International Research Grant

South Eastern Kenya University has yet again been thrust into the international limelight with the listing of its student among the winners of a global research grant.

Mrs. Susan Nguku has been selected to receive a scholarship award for her PhD study at SEKU's School of Agriculture and Veterinary Sciences.

The sponsoring agency, the Climate, Food and Farming, Global Research Alliance Development Scholarships Programme (CLIFF-GRADS) is a joint initiative of the Global Research Alliance on Agricultural Greenhouse Gases (GRA) and the CCAFS Low Emissions Development Flagship, aims to build capability in early-career scientists from developing countries to conduct applied research in agriculture greenhouse gas emission quantification and mitigation. It targets citizens of developing countries, undertaking their PhD in universities in a developing countries.

The call had 53 thematic research areas, and in each area only one applicant could qualify. Mrs. Nguku who is an employee of Kitui County Government's department of agriculture, won her award under the thematic area: Effects of inhibiting methanogenesis on propionate production in the rumen.

According to CLIFF-GRADS report, the candidate ranked above other applicants and satisfied the evaluators on specific assessment areas, viz. a focus in research in animal digestion and metabolism; ability to work independently and resolve practical problems; organization and thoroughness; and experience with digestion and metabolism experiments with ruminants.



*Mrs. Susan Nguku*

Mrs. Nguku's PhD study titled on "Animal Production potential of climate smart *Brachiaria* grass species (*B. brizantha* cv Toledo and *B. decumbens* cv Basilisk) with *E. Superba* as controls, involves measuring the voluntary intake of the grasses, establishing the rumen degradation and passage rates in the reticulo-rumen of the Dorper sheep being fed the grasses.

The study avers that intake is important because it determines nutrient availability of the feed provided. The rumen degradation rates and passage rates will further determine intake of feed and hence the nutrients availability and growth potential of ruminant livestock that will utilize the forage through grazing or stall feeding.

The award which is hosted by Chile's Instituto de Investigaciones Agropecuarias INIA Remehue, Osorno runs from February through July 2021.



*Mrs. Nguku conducts an experiment*

## Building Resilience: SEKU-ASALI Project Creates Economic Village in Kitui

Increased vulnerability of communities to climate change, variability and extremes in the arid and semi-arid areas of Kitui County has led to diminished capacity of households to respond to or resisting and recovering from the impact of various hazards.

The vulnerabilities manifested in circles of poverty and senses of isolation, insecurity and defenseless in the face of risk, shock or stress. Different households differ in their exposure to risk as a result of their social group, gender, ethnic or other identity, age and other factors. To assist the communities in mitigating or getting in the path of resolving their vulnerability, appropriate measures are needed. Key among these is capacity building to buttress livelihoods.

This is done with the aim of enabling individuals, households and communities to access and make use of resources to be able to cope with threats or to resist the impact of hazards. Such resources can be physical or material, but they can also be found in the way a community is organized or in the skills or attributes of individuals and/or organizations in the community.

Physical, economic, social and political factors determine people's level of vulnerability and the extent of their capacity to resist, cope with and recover from hazards. Clearly, in the ASALs, poverty is a major contributor to vulnerability.

Poor people are more likely to live and work in areas exposed to potential hazards, while they are less likely to have the resources to cope when a disaster strikes. Endowed people usually have a greater capacity to resist the impact of hazards and, tend to be better protected from hazards and have preparedness systems in place. Secure livelihoods and higher incomes increase resilience and enable people to recover more quickly from a hazard.

To this end, the ASALI project in conjunction with other stakeholders such as SASOL Foundation and Ducubox has embarked on a mission to enhance the community's resilience to climate change, variability and extremes in Ndatani Village of Kitui County. The project involves the establishment of a viable and sustainable model social and economic village. Key components of the project include a dam which has already been done through

funding raised by the community, SASOL Foundation and Ducubox. The ASALI project has provided other facilities, such as containers to house a community project office and business activities such as hair salon, ICT shop and, an Agrovet shop among others. The ICT shop will play a central role in water selling to sustain the community water supply. Community members will also get climate related information especially on early warning, thus building their resilience.

The ASALI project is also providing twelve (12) bee hives that will introduce apiculture in the area. Training to sustain the Community Village Economic will be carried out by the Sahelian Solutions (SASOL) Foundation and Ducubox in consultation with the ASALI project. For the ICT Centre, the ASALI project has already procured five desk top computers.



*ABOVE: SEKU-ASALI Project team and community leaders inspect containers delivered at the site of the proposed model village. BELOW: Beehives provided by the Project*





## Boosting up the Pool: Academic Staff Promoted, New Ones Appointed

In keeping with its strategic goal of establishing a quality human resource base that responds to its mandate, South Eastern Kenya University has made several appointments in the academic and research ranks.

A total of seven members of academic staff have been promoted to various positions in the last six months. In the Department of Psychology, School of Education, Humanities and Social Sciences, Jonathan Mwanja has been promoted from senior lecturer to Associate Professor of education psychology, while Johnson Kitheka has been appointed Associate Professor of Hydrology in the department of Hydrology and Aquatic Sciences.

Prof. Mwanja holds a PhD degree in Guidance and Counseling from the University of Dar-es-Salaam, Tanzania, a Master of Education degree in Guidance and Counseling from Egerton University, and a Bachelor of Education from Kenyatta University. Prof Kitheka obtained his PhD in Hydrology, Master of Science (hydrology), and Bachelor of Science degree from the University of Nairobi.

In the School of Pure and Applied Sciences, Josphert Kimatu has been promoted to the position of Associate Professor in the Department of Life Sciences, which has also seen the elevation of Dr. Sichangi Kasili for Lecturer to Senior Lecturer.

Prof. Kimatu, who previously served as Director, Research, Innovation and Technology at the University holds a PhD degree in Molecular Plant epigenetics from North Normal University, China, and M.Phil in Forest

Pathology and Bachelor of Science (Botany) from Moi University. He also has a Postgraduate Diploma in Education.



*Mr. Ian S. Ashivende,  
School of Engineering  
and Technology*



*Ms. Irine Jeptum,  
School of Engineering  
and Technology*

Dr. Kasili obtained his PhD in Parasitology and Entomology from Jomo Kenyatta University of Agriculture and Technology, and Master of Science in Medical Entomology, and Bachelor of Science, Botany and Zoology from University of Nairobi.

Dr. Selpher Cheloti of the School of Education, Humanities and Social Sciences is now a Senior Lecturer in the Department of Education Administration and Planning, where she served until her elevation.

In the School of Water, Environment and Natural Resources Dr. Sonia Nzilani has been appointed Lecturer, moving up from the position of Tutorial Fellow in the Department of Hydrology and Aquatic Sciences.

Dr. Judy Wambua of the School of Agriculture and Veterinary Sciences moves from Tutorial Fellow to Lecturer in the Department of Agricultural Sciences

At the same time a number of new faces have joined the University staff over the last six months. Prof. Catherine Mwenda, has joined the School of Nursing Sciences and Public Health as Associate Professor. Prof Mwenda is a holder of PhD, Master and Bachelor of Science degrees in Nursing from the University of Nairobi.

The biggest beneficiary in the latest recruitment is the School of Engineering and Technology which has been joined by six employees in different departments. They include Dr. Gideon Kipchirchir Rotich, Senior Lecturer, Department of Clothing and Textile; Dr. Shamim Omar Nassar, Lecturer, Department of Electrical and Electronics Engineering; Mr. Francis Itote, Tutorial Fellow, Department of Electrical and Electronics Engineering; Mr. Ian Slade Ashivende, Tutorial Fellow, Clothing and Textile; Ms. Irine Jeptum, Agricultural Engineering; and Ms. Faith Mawia Muema, Civil Engineering.



*Prof. Katherine Mwenda,  
School of Nursing Sciences  
and Public Health*



*Dr. Gideon Rotich,  
School of Engineering  
and Technology*

## ACADEMIC PROGRAMME

### SCHOOL OF BUSINESS AND ECONOMICS

Master of Business Administration  
 Master of Arts in Economics  
 Bachelor of Business Management and Information Technology  
 Bachelor of Project Planning and Management  
 Bachelor of Commerce  
 Bachelor of Procurement and Supply Chain Management  
 Bachelor of Economics and Statistics  
 Bachelor of Economics  
 Diploma in Sales and Marketing  
 Diploma in Human Resources Management  
 Diploma in Purchasing and Supply Chain Management  
 Diploma in Business Management  
 Certificate in supply Chain Management

### SCHOOL OF PURE AND APPLIED SCIENCES

Doctor of Philosophy in Physics  
 Master of Science in Physics  
 Master of Science in Biodiversity Conservation and Management  
 Master of Science in Biotechnology  
 Master of Science in Biochemistry  
 Bachelor of Science in Mathematics  
 Bachelor of Science in Actuarial Science  
 Bachelor of Science in Statistics  
 Bachelor of Science in Biology  
 Bachelor of Science in Biochemistry and Molecular Biology  
 Bachelor of Science in Chemistry  
 Bachelor of Science in Physics  
 Bachelor of Science in Electronics  
 Diploma in Electronics

### SCHOOL OF ENGINEERING AND TECHNOLOGY

Diploma in Mechanical Engineering (Production Engineering)  
 Diploma in Mechanical Engineering (Automotive Engineering)  
 Diploma in Mechanical Engineering (Power Electronics Engineering)  
 Diploma in Mechanical Engineering (Telecommunications Engineering)  
 Diploma in Fashion Design and Textile Technology  
 Certificate in Fashion Design and Garment Making

### SCHOOL OF ENVIRONMENT, WATER AND NATURAL RESOURCES

Doctor of Philosophy in Climate Change and Agroforestry  
 Doctor of Philosophy in Environmental Management  
 Doctor of Philosophy in Watershed Management  
 Master of Science in Climate Change and Agroforestry  
 Master of Science in Environmental Management  
 Master of Science in Aquaculture  
 Master of Science in Integrated Water Resources Management  
 Master of Science in Mining and Mineral Exploration  
 Master of Science in Agro-meteorology  
 Master of Science in Exploration Geo-Physics  
 Bachelor of Science in Forestry  
 Bachelor of Science in Environmental Conservation and Natural Resources Management  
 Bachelor of Science in Land Resources Management  
 Bachelor of Science in Environmental Management  
 Bachelor of Science in Agro-ecosystems and Environmental Management  
 Bachelor of Science in Applied Aquatic Sciences  
 Bachelor of Science in Hydrology and Water Resources Management  
 Bachelor of Science in Fisheries Management and Aquatic Technology  
 Bachelor of Science in Geology  
 Bachelor of Science in Meteorology  
 Diploma in Forestry  
 Certificate in Environmental Impact Assessment

### SCHOOL OF EDUCATION, HUMANITIES AND SOCIAL SCIENCES

Doctor of Philosophy in Educational Administration and Planning

Master of Education in Kiswahili Methods  
 Master of Education  
 Master of Education in Early Childhood  
 Master of Arts in Sociology  
 Master of Arts in Religious Studies  
 Master of Arts in Gender and Development Studies  
 Master of Arts in Kiswahili  
 Master of Arts in Geography  
 Bachelor of Arts  
 Bachelor of Education (Arts)  
 Bachelor of Education (Science)  
 Bachelor of Education (Early Childhood)  
 Bachelor of Arts in Gender and Development Studies  
 Bachelor of Arts in Social Work  
 Diploma in Social Work

### SCHOOL OF AGRICULTURE AND VETERINARY SCIENCES

Doctor of Philosophy Agricultural Resources Management  
 Doctor of Philosophy in Animal Science  
 Doctor of Philosophy in Agricultural Economics  
 Master of Science in Dryland Resources Management  
 Master of Science in Livestock Production Systems  
 Master of Science in Agronomy  
 Master of Science in Agricultural Economics  
 Master of Science in Rangeland Management  
 Master of Science in Comparative Mammalian Physiology  
 Master of Science in Reproductive Biology  
 Bachelor of Science in Agriculture  
 Bachelor of Science in Dryland Agriculture  
 Bachelor of Science in Horticulture  
 Bachelor of Science in Range Management  
 Bachelor of Science in Dryland Animal Science  
 Bachelor of Science in Food Nutrition and Dietetics  
 Bachelor of Science in Agribusiness Management and Entrepreneurship  
 Bachelor of Science in Agricultural Education and Extension  
 Diploma in Crop Protection  
 Diploma in Apiculture  
 Diploma in Rangeland Management  
 Diploma in Anima Health  
 Certificate in Animal Health and Husbandry  
 Certificate in Artificial Insemination and Fertility Management

### SCHOOL OF NURSING SCIENCES AND PUBLIC HEALTH

Master of Science in Epidemiology  
 Master of Science in Public Health  
 Master of Science in International Health  
 Master of Science in Infectious disease diagnosis  
 Bachelor of Science in Public Health  
 Bachelor of Science in Population Health  
 Bachelor of Science in Medical Microbiology  
 Bachelor of Science in Nursing

### SCHOOL OF INFORMATION, COMMUNICATION AND TECHNOLOGY

Master of Science in Information Systems  
 Bachelor of Science in Computer Science  
 Bachelor of information Technology  
 Diploma in Computer Science  
 Diploma in information Technology  
 Certificate in Information Technology  
 Certificate in Computer Applications





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## Editor’s Note

Once again, the editorial team extends our warm welcome to our readers to yet another issue of *SekuNews*. As usual we are delighted to share with SEKU stakeholders the activities that have preoccupied the University community in the past couple of months.

The University Community, like other Kenyans and the rest on the global community, has remained in the grip of COVID-19, with attention and resources being directed towards finding solutions to the worldwide challenge.

The University played host to the Principal Secretary for the Department of University Education and Research, who visited the Main Campus to among other things assess our readiness to reopen after closure occasioned by the outbreak of COVID-19. Around the same time SEKU students participated in the regional drama festivals where they put up sterling performances, only for their progress to be curtailed by the advent of the novel corona virus which saw all public activities suspended.

Following the outbreak of COVID-19, and partial suspension of activities various departments of the

University came up with innovations to combat the global pandemic.

The department of Physical Sciences embarked on the production of hand sanitizers while the School of Engineering and Technology launched the production of face masks. The two innovations have now been upscaled to commercial level.

The University also continued to forge ahead with strategic collaborations which have seen it enter into important agreements with key global partners. The University is set to receive laboratory equipment form the US based Seeding Labs.

In the same vein, the students and staff, through the various research projects have engaged the local communities in livelihood enhancing research activities.

*Osir Otteng*