

## 

e-Newsletter

## The Road to Embracing Knowledge



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**Academic Promotion** 1

Learning Experience 2

**Activities** 



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## UDOMASA LEADERSHIP



Dr. Gerald Shija Chairperson



**Vice Chairperson** 



Mr. Isaac Mahenge **Deputy General** Secretary



Mr. Yonas S. Idala **General Secretary** 



Dr. Lutengano E. Mwinuka Treasurer



## **Message From UDOMASA** Chairperson

### Dr. Gerald Shija



Dear Members of the University of Dodoma Academic Staff Association (UDOMASA),

As we launch the first edition of our UDOMASA newsletter, I am delighted to welcome each of you to become an engaged reader. This newsletter will keep you updated on all the latest news and developments within and beyond our community. I extend my heartfelt greetings to all of you-colleagues and dedicated members of our academic community—who contribute to the success of our university and nation.

As leaders, we are committed to representing the interests of academics at every level to ensure excellence in our core duties: teaching, research, knowledge dissemination, and consultancy or community service. UDOMASA remains committed in fulfilling its roles with the highest spirit and integrity. Through various initiatives and advocacy, the Central Committee (CC) and Executive Committee (EXCOM) work diligently to promote and protect our rights and welfare.

A year into our current leadership, UDOMASA has worked tirelessly to address the challenges we face in academic roles. We advocate strongly for fair treatment, equality, and a supportive working environment.

With your continued support, we aim to further develop professional opportunities and stay true to our mission and vision, serving both our esteemed association and university.

As we move forward, we reinforce our commitment to excellence. We will keep advocating for positive changes, engaging with stakeholders, and upholding the values of transparency, inclusivity, and integrity. Together, we will achieve our mission and vision.

I sincerely appreciate every member of the UDOMASA community for your untiring support and dedication. I also extend my gratitude to the newsletter's editorial team for their hard work and commitment to making this dream a reality. Their dedication to excellence is truly inspiring.

I hope this newsletter enlightens you and provokes thoughts about the future of our social and academic pursuits. It features a variety of stories with different tones and depths. Be sure to be among the readers and contribute to ensure its sustainability.

Thank you for your continued support and cooperation.



## Message From Chief Editor

## Dr. Mandela P. Ryano

Dear readers,

I am excited to welcome you to this first issue of the UDOMASA e-Newsletter. The successful creation of this first edition, a testament to the vision, dedication, and hard work of our current UDOMASA leaders since their inauguration a year ago, is a milestone we must all proudly celebrate. As many of you will recall, their e-Newsletter efforts received unanimous endorsement from UDOMASA members during the last Ordinary General Meeting held on 9th May, 2024. Our e-Newsletter will be published biannually.

This premiere edition brings you a selection of informative and insightful stories, showcasing our university's commitment to delivering quality education and reflecting on academic conferences held at UDOM over recent months. While this issue features reflections from conferences by the College of Natural and Mathematical Sciences, and the Schools of Medicine and Dentistry, and Nursing, this year has seen numerous conferences held at our prestigious University, marking it as a historic period.

We are dedicated to providing an enriching and inspiring reading experience. I extend my sincere gratitude to the Office of the UDOMASA Secretary, the editorial team, our devoted contributors, and the entire UDOMASA community for your firm support. Without your dedication, this achievement would not have been

possible, especially given the challenges of starting a new. We look forward to maintaining this spirit of success in future editions of the e-Newsletter.

The message from the UDOMASA chairperson in this issue highlights the efforts and achievements made to foster a supportive and promising working environment. We believe we all have common interests and a shared commitment to ensuring our environment remains conducive and rewarding, uniting us as a strong force with our leaders at forefront.

Additionally, this issue recognises several colleagues who have achieved promotions to higher academic ranks between January and June, 2024. Congratulations to all on this well-deserved achievement.

Furthermore, we pay tribute in this issue to our late colleague, Ms. Mary J. Maina, who passed away just over a month ago. We honour her memory for her outstanding contributions to our staff association and the UDOM community.

As we pledge our continued dedication and commitment going foward, we welcome your feedback and suggestions to enhance the readership experience of our future e-Newsletter editions. We hope many of you are inspired to actively participate by contributing stories and sharing your thoughts in the upcoming issues.

Happy reading to all!



## **The Editorial Team**

Dr. Mandela P. Ryano (Editor in Chief - CHSS),

Dr. Prudence P. Rwehabura (Managing Editor - CHSS),

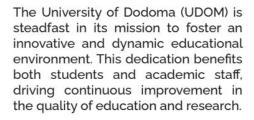
Mr. Chrisostomus Lugongo (Copy Editor - CIVE).



## Embracing Knowledge: UDOM's Judicious Quality Insights, Benefiting Students and Academics

## By Dr. Alex D. Shayo

**Former Central Quality Assurance Coordinator** 



#### Vision and Mission: A Journey Towards Excellence

UDOM aims to be a centre of excellence, delivering value-added training, research, and public services. to mission provide gender-sensitive, comprehensive. quality education that meets the needs of Tanzania and the world. Guided by core values of integrity, professionalism, and inclusivity, UDOM ensures a holistic educational experience, setting itself apart and propelling forward.

#### Quality Assurance Initiatives: The Secret Sauce to Our Success

UDOM's commitment to academic excellence is anchored in robust Quality Assurance (QA) initiatives. The Quality Assurance Unit (QAU) implements a comprehensive QA framework, conducting regular tracer studies to track graduates' progress which informs periodic refining of curricula. Benchmarking against global best practices keeps UDOM at forefront the of educational innovation.

In 2019, the Tanzania Commission for Universities (TCU) granted UDOM a five-year accreditation, until June 2024. A recent Institutional Self-Assessment (ISA) identified areas for improvement, informing a detailed Quality Improvement Plan (QIP). Regular stakeholder feedback shapes policies and practices, reinforcing UDOM's proactive approach to quality assurance and its leadership in higher education.

#### Innovation in Teaching and Learning: Blending Brilliance and Fun

UDOM embraces innovative teaching methods to enrich education and prepare students for future challenges. Supported by the Higher Education Economic Transformation (HEET) Project, UDOM integrates blended learning and flipped classrooms, leveraging technology for dynamic, interactive learning.

Moodle system revolutionised course delivery and enhanced student engagement. Curriculum reviews across departments emphasise blended learning, ensuring adherence to TCU auidelines. These approaches enhance students' practical skills and theoretical understanding, equipping them for success in a complex global landscape.



#### Professional Development: Leveling Up Our Skills

UDOM prioritises the professional growth of its academic staff, recognising that continuous development enriches the educational experience. Diverse professional development programmes cover scientific writing, grant proposal development, and innovative teaching strategies.

The Transforming Employability for Social Change in East Africa (TESCEA) project, which was active until 2022, enhanced pedagogical skills and produced graduates with critical thinking and problem-solving abilities. UDOM supports training initiatives to integrate cutting-edge research into teaching, fostering a culture of lifelong learning and professional growth. This investment ensures UDOM remains a leader in teaching, research, and community services.

#### Research Excellence: Where Curiosity Meets Creativity

UDOM emphasises research excellence, with the Directorate of Research. Publications. and Consultancy (DRPC) fostering scholarly inquiry and innovation. initiatives. Structured including training in scientific writing and grant proposal development, empower academic staff to integrate research into teaching.





UDOM sponsors manuscript writing post-peer review for its academic staff, promoting global scholarly discourse. These efforts, among others, position UDOM as a hub of research excellence, driving innovation and societal development locally and internationally.

#### Comprehensive Student Support: Your Sidekick in Success

UDOM is committed to fostering a supportive and inclusive environment for academic and personal growth. Comprehensive support services include academic advising, career counselling, and robust health services. On-campus accommodation ensures conducive living environment, with enhanced infrastructure for students with special needs.

Extracurricular activities, student clubs, and cultural events enrich student experiences, fostering leadership, teamwork, and personal development. UDOM's holistic support empowers students to thrive and contribute meaningfully to society.

#### Community **Engagement** Outreach: Spreading the Love and Making a Difference

UDOM is deeply committed to community engagement, addressing needs through strategic partnerships and collaborative efforts. The Outreach and Engagement Policy Guidelines (2024)purposeful activities aligned with local priorities.

Partnerships with nearby schools and health outreach programmes by the School of Medicine and Dentistry provide essential services. The Legal

Aid Clinic under the School of Law offers community legal services. UDOM's outreach extends to economic development and social empowerment, supporting sustainable and community-driven initiatives projects. These efforts enrich students' educational experiences and strengthen the ties with the community.

#### Final Thoughts

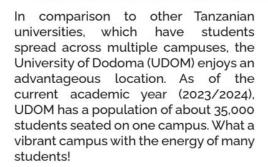
Looking to the future, UDOM remains committed to fostering an environment that encourages innovation, supports growth, and engages with the wider community. Through quality assurance, innovative teaching, robust research, professional development, and comprehensive student support, UDOM showcases its commitment towards building a brighter future. It is not just a university but a community dedicated to knowledge, excellence, and service.



# Transforming Students' Note-worthy Futures: How UDOM Cultivates Students' Understanding

### By Dr. Prudence P. Rwehabura,

**Department of Arts and Media Studies** 



UDOM academics, working from the heart of Tanzania, have the advantage of being powerful pillars in developing outstanding thinkers from all parts of the country in a variety of academic fields designed to be relevant in Tanzania and beyond. **UDOM** academics are passionate about educating in a way that promotes students' future career development. Teaching is supplemented by varied pedagogies to ensure that students obtain theoretical and knowledge essential to dealing with the world's real challenges.

The current dialogue-feature story follows the narrations of some of the academics at one of UDOM's six colleges, namely the College of **Humanities and Social Sciences (CHSS)** and the Institute of Development Studies (IDS). The purpose of this feature post is to share with you such academics' narratives as their perspectives on what it means to create a note-worthy future for students. The narratives are highlights of the following question:

What impact can dedicated UDOM academics have on imparting knowledge that will help students create their futures?

#### 1. Prof. Albino J. Tenge on Training Critical Minds

Albino Tenge is an Associate Professor of Production Ecology and Resource Conservation at the Institute of Development Studies (IDS). Currently, he serves as the Principal of CHSS at UDOM. Professor Tenge's scholarly pursuits encompass a broad spectrum of research interests, including but not limited to natural resources management, climate contract farming, and the adoption of agricultural technologies.

**Question:** What Impact can Dedicated UDOM Academics Have on Imparting Knowledge that Will Help Students Create their Future?

Response: The College of Humanities and Social Sciences comprises seven academic departments that engage students to think critically and deeply in the ever-challenging and diverse fields of humanities and social sciences. The academic programmes offered by CHSS are demand-driven to provide solutions to real development challenges. This focus explains the significant increase in enrolment, from less than 1,000 in 2008 to about 7,502 today, which constitutes about 21% of the total



enrolment at UDOM. Dedicated academics have a great impact on imparting knowledge and skills to our students, as they devote their time and resources to ensure students gain invaluably from the college's wealth of academic expertise.

#### 2. Dr. Kokeli P. Ryano on Teaching Through Technology

Dr. Ryano bases in the Department of History and Archaeology. He is an expert of Archaeology whose interests include, among others, prehistoric lithic technologies, palaeoanthropology, cultural heritage, and community engagement.

**Question:** What Impact can Dedicated UDOM Academics Have on Imparting Knowledge that Will Help Students Create their Future?

Response: Students at the Department of History and Archaeology learn diverse skills blended from fields of archaeology, cultural anthropology, cultural heritage, tourism, and history. The role of technology in enhancing life of humanity is demonstrated through available archaeological evidences in the form of long-made and used implements from various materials including lithics. Students use such knowledge about past cultural experiences to engage with educate local communities to and compliment shape perspectives of heritage and heritage





sites. For example, students study how to reconstruct past technologies and gain an understanding of the subsistence strategies of prehistoric populations in Africa and globally, from at least the late Pleistocene to the Holocene periods. Furthermore, through collaborations with their instructors, archaeology and cultural anthropology students attempted to use material traces to investigate Dodoma's far-reaching history, trying to demystify the now mythical Wambambali people, whom the locals consider to be the natives and associate them with the abundant pottery and daub remains.

#### 3. Dr. Boniphace S. Francis's Global **Perspectives**

Dr. Francis is an expert of Political Economy and Management Science from the Department of Political Science and Public Administration. Some of his disciplinary interests are public policy analysis, organisational development, agricultural value-chain analysis, and stakeholder

engagement. Dr. Francis' multidisciplinary approach and research interests underscore UDOM's commitment to addressing contemporary challenges through rigorous academic inquiry.

Question: What Impact can Dedicated UDOM Academics Have on Imparting Knowledge that Will Help Students Create their Future?

Response: I expose my students to the study of local and global political systems and cultures. This prepares them to graduate with strong demand in areas such as international political economy, rural development management, analysis, poverty cluster initiatives, impact evaluation, and various other fields within political economy and management science. The Department of Political Science and Public Administration at UDOM provides also opportunities students to engage with esteemed local and global institutions, including the International Political Science Association, the African Association of Public Administration and

Management, and the Institute of Public Administration in Zanzibar, enriching their learning experience.

#### 4. Dr. Rehema G. Kilonzo and Career **Guidance and Counselling**

Dr. Kilonzo from the Department of Sociology and Anthropology is a well-known sociologist who focuses on social security, especially child welfare and protection.

Question: What Impact Dedicated UDOM Academics Have on Imparting Knowledge that Will Help Students Create their Future?

Response: I am convinced that lecturers' devotion and dedication to their profession substantially enhance the relationship between instructors and students. Engagement, both individually and in groups, is critical for developing students' 21st century skills and tackling societal concerns. This is supported by providing our students with individualised assistance and advice on sociology and anthropology career choices, as





well as work prospects. As a result, our students continually demonstrate their sociological, anthropological, and social work skills wherever they go.

#### 5. Dr. Barnabas M. Msongaleli on Letting Geography Students 'Lead the Show'

Dr. Msongaleli is a Senior Lecturer in the Department of Geography and Environmental Studies. He specialises in natural resource management and climate change. Among Dr. Msongaleli's interests are soil water management, crop simulation modelling, and spatial analyses.

**Question:** What Impact can Dedicated UDOM Academics Have on Imparting Knowledge that Will Help Students Create their Future?

Response: The Geography and Environmental Studies department is dedicated to cultivating students' ability to 'lead the show'. Students acquire this skill by attending conferences and engaging in intellectual debates on cross-disciplinary themes. Recent examples include their participation in

Political Ecology Network (POLLEN) Conference 2024, which involved parallel discussions taking place at UDOM, Lima (Peru), and Lund (Sweden) on "Towards Plural and Just Futures" from 10th to 12th June 2024. Students also led this year's World Environment Day campaign dialogue, which focused on land restoration, desertification, and drought resilience. The dialogue's slogan was "Our Land. Our Future". The main point of the dialogues was how landscapes encompassing everything from planting trees to reducing pollution can help prevent land degradation, which affects over three billion people globally. Students' talks emphasised the need for humans to protect and restore land to mitigate and adapt to climate change, restore nature to full health, and improve the livelihoods and food security of millions of Tanzanians.

#### 6. Ms. Mary H. Kafyome on Practical Masterly of the Arts and Media Studies

Ms. Kafyome is an Assistant Lecturer in the Department of Arts and Media Studies. She brings over a decade of

extensive experience in the field of mass communication, with a particular focus on Public Relations (PR). Ms. Kafyome's affiliation with esteemed media organisations such as the Tanzania Media Women Association (TAMWA), the Media Institute of Eastern Africa-Tanzania Chapter (MISA-TAN), and the Public Relations Society of Tanzania (PRST) underscores her commitment to the communication industry.

**Question:** What Impact can Dedicated UDOM Academics Have on Imparting Knowledge that Will Help Students Create their Future?

Response: Our students acquire practical hands-on experience in every academic discipline taught by the Department of Arts and Media Studies. This particular experience stems from a practical dimension that aims to guarantee that students grasp the skills required for arts and media studies. Industry reports and feedback from key stakeholders attest to our graduates' great performance. The aforesaid practical endeavor covers



all specialisations within the department, including but not limited to film production and management, theatrical arts management, dance studies, costume design, and drawing painting. Others include and electronic media (television and radio), new-media technologies, print media, advertising principles, media management, media laws. PR management, strategic communication, persuasion skills, public speaking and protocol, among

## 7. Dr. Aginiwe N. Sanga on the Department of Kiswahili's Partnerships

Dr. Sanga, of the Department of Kiswahili, specialises in Kiswahili Literature, with a specific focus on Swahili literary anthologies.

**Question:** What Impact can Dedicated UDOM Academics Have on Imparting Knowledge that Will Help Students Create their Future?

Response: The Department Kiswahili is dedicated to equipping our students with the essential of Kiswahili knowledge studies through various approaches. This includes promoting and encouraging students to participate in numerous academic writing seminars. Additionally, students regularly attend conferences organised by Chama cha Wanafunzi na Wahitimu wa Kiswahili wa Vyuo Vikuu na vya Kati Tanzania (CHAWAKITA). Moreover. the Department Kiswahili has established collaborations with several institutions to facilitate the exchange of expertise. These partnerships include the Arusha Conference Centre International (AICC). Baraza la Kiswahili la Taifa (BAKITA), and Zhengzhou University of Aeronautics.

#### 8. Ms. Jamillah D. Kanagwa and the Reinforcement of Linguistic Skills in Language Studies

Ms. Kanagwa provides further

evidence of how UDOM, through its departments such as Foreign Languages and Literature, endeavours to shape the note-worthy futures of its students. She specialises in translation and interpretation and is currently pursuing her PhD studies at UDOM.

**Question:** What Impact can Dedicated UDOM Academics Have on Imparting Knowledge that Will Help Students Create their Future?

Response: The Department of Foreign Languages and Literature at UDOM reinforces students' linguistic skills through a variety of instructional approaches. Because of the potential of foreign languages in the global labor market, we strive to guarantee that our graduates fulfill the required standards in terms of listening and speaking skills, which are sometimes their hampered by limited background in foreign languages. Thanks to technological advancements. It has enabled us to





equip our students with the necessary skills for interacting with native speakers, which is critical in studying a foreign language. Thus, in addition to other traditional ways, using online audio-visual resources as real materials has proven to be an effective strategy to get our students habituated to listening to and speaking foreign languages. Our students are an extremely valuable resource in the multilingual community, speaking at least four languages: Kiswahili, English, French, and Arabic. Language teaching methods are yet another vital tool that students are provided with, allowing our graduates to effortlessly learn new languages and teach the languages when needed. We also reiterate the necessity of language engagement and revitalisation. In general, we provide our students with a variety of linguistic skills that will enable them to succeed in both the local and worldwide labor markets. Conclusively, UDOM lecturers take centre stage in shaping their students' futures with dedicated teaching, innovative methods, and unwavering support. These narratives from diverse academics at CHSS reveal

how UDOM's faculty spark critical thinking, boost technological skills, broaden global perspectives, and groom practical abilities. Engaging students both one-on-one and in groups, UDOM lecturers not only pass on knowledge but also ignite a passion for tackling real-world challenges, carving out exciting careers. With a firm commitment to top-notch, integrated education. strategic partnerships, and hands-on learning, UDOM ensures its students are brilliantly equipped to create note-worthy futures, both in Tanzania and beyond.



## **How the University of Dodoma's Curriculum Review Should be Lined to Combat Increasing Graduate Unemployment**

## By Dr. Adriano Pamain

**Department of Physics** 



The University of Dodoma (UDOM) is comprehensive undertaking a curriculum review process across almost all its departments, institutes, schools, and colleges, a move streamlined towards addressing the increasing graduate unemployment. This significant effort, driven by academic staff, industry stakeholders, and alumni, aims to ensure that UDOM's educational programmes remain relevant, responsive, and aligned with the dynamic demands of the contemporary job market. It is crucial that we equip our graduates with the skills, knowledge, and competencies necessary to thrive in a rapidly evolving world. By updating our curriculum, we can better prepare our students to face future workforce challenges and exploit the scarce and competitive and opportunities.

One of the primary motivations behind this curriculum review is to address the rising unemployment rates among university graduates in Tanzania. Historically, graduates from Tanzanian universities, including UDOM, were able to employment directly after graduation. However, in recent years, many graduates have faced prolonged periods of job searching, often taking several years before finding suitable employment. This troubling trend underlines the need educational system that not only

imparts theoretical knowledge but also emphasises practical skills and adaptability. The disconnection between academic training and market demands has contributed significantly to this issue. By bridging this gap, we can enhance the employability of our graduates and reduce unemployment rates.

An effective curriculum review should prioritise several key areas to tackle this issue. First and foremost, it is essential to integrate industry-relevant skills into our programmes. By collaborating closely with employers and industry experts, we can ensure that our courses are tailored to meet the specific needs of the job market. This will involve content. updating course incorporating hands-on training, and providing opportunities for internships practical experiences. Additionally, creating partnerships with leading companies can facilitate job placements and apprenticeships for students. This synergy between academia and industry will make our graduates more competitive in the job market.

Furthermore, we must foster a culture of entrepreneurship and innovation among our students. Encouraging entrepreneurial thinking providing resources for startups can empower graduates to create their

own employment opportunities, rather than solely relying on traditional job markets. This approach not only addresses unemployment but also stimulates economic growth and development. Within the Physics Department at UDOM, through the DALILA project, a capacity-building initiative funded by the Education, Audiovisual and Culture Executive Agency of the European Union, we established six courses for students specialising in renewable energy. These courses include three renewable energy courses and three business courses. The integration of business courses is intended to equip students with entrepreneurial skills and promote self-employment in the field of Physics with a focus on renewable energy. By promoting innovation and self-sufficiency, we can prepare our students to be more of job creators rather than job seekers.

Another critical aspect is the incorporation of interdisciplinary learning. In today's complex world many of the most pressing challenges require solutions that draw from multiple fields of study. By promoting interdisciplinary approaches, we can equip our graduates with the ability to think critically and solve problems from various perspectives, making them more versatile and attractive to employers. For example, combining knowledge from engineering,





environmental science. and economics can lead to innovative solutions in sustainable development. This holistic approach not only broadens students' horizons but also enhances their problem-solving capabilities.

Moreover, soft skills such as communication. teamwork. and leadership should be emphasised throughout the curriculum. These skills are highly valued by employers and are essential for success in any professional setting. We need to ensure our students graduate not only with technical expertise but also with the ability to collaborate effectively adapt diverse work and to environments. Embedding these skills assessments course extra-curricular activities can further reinforce their importance.

Workshops, seminars, and group can provide practical projects avenues for students to develop and refine these essential skills.

Lastly, continuous feedback and assessment mechanisms must be in place to monitor the effectiveness of the curriculum and make necessary adjustments. Engaging with alumni, employers, and current students will provide valuable insights into the real-world applicability programmes and help us stay ahead of emerging trends and challenges. Regular curriculum audits stakeholder consultations will ensure that our educational offerings remain relevant and effective. By staying responsive to feedback, we can improve continuously our programmes and better serve our students' needs.

In conclusion, the curriculum review UDOM demonstrates the university's commitment to increasing addressing the unemployment rates among graduates. By aligning educational offerings with the needs the job market, fostering entrepreneurship, promoting interdisciplinary learning, and emphasizing skills, **UDOM** soft achieves its vision of becoming a centre of excellence that provides value-added training, research, and public services. This ensures the production of graduates who are not well-educated only but also well-prepared to make significant contributions to society and the economy, enhancing their career prospects and playing a crucial role in advancing the overall development and prosperity of the nation.



# Bridging the Gap between Academic and Industry: The First International Conference on Science, Technology, and Innovation at the University of Dodoma

## By Dr. Benatus Mvile

**Department of Physics** 



The University of Dodoma (UDOM) recently hosted a groundbreaking event that promises to shape the future. From June 18th-20th, 2024, the College of Natural and Mathematical Sciences (CNMS) welcomed the world to the 1st International Conference on Science, Technology, and Innovation for Sustainable Industrial and Community Development. **Participants** across the globe gathered at UDOM, creating a vibrant exchange of ideas and innovation. The conference research unite aimed professionals, academics, industry policymakers experts, and showcase recent advances at the intersection of science, technology, innovation. and sustainable development. The theme. Recent Advances in Science. Technology, and Innovation for Sustainable Industrial and Community Development," resonated through the East Africa Conference hall at the College of Informatics and Virtual Education (CIVE). The conference inspired attendees to envision a future where science, technology, innovation, and sustainability coexist harmoniously. This event highlighted UDOM's proactive role in fostering international collaboration promoting sustainable development across global borders.

#### **Showcasing Global Talent**

conference attracted 150 participants. including keynote speakers, presenters, organising committee members, and other delegates. This diverse group engaged academia-industry dialogues, networking sessions, and knowledge-sharing activities. The event showcased 122 abstracts from countries such as Tanzania, Malawi, Uganda, South Africa, Norway, Kenya, Nigeria, Sudan, Italy, India, Pakistan. and Zambia. recent presentation highlighted advances in science, technology, and fresh innovation. offering perspectives and solutions sustainable development. The sheer diversity of topics and approaches demonstrated universal commitment to addressing global challenges through innovation and collaboration. The exchange of ideas and expertise at the conference underscored the importance of international cooperation advancing sustainable solutions across diverse geographical contexts.

#### A Range of Sub-Themes from Keynote Speakers

The speakers illuminated various sub-themes, drawing from their

extensive experience and field research. Notably, Eng. Khalid M. Shalon from Elsevier representing Sub-Saharan Africa, provided a unique perspective on the region's scientific and technological advancements.

#### The sub-themes included:

- The Role of Mathematical and Basic Science in Sustainable Industrial and Community Development
- Climate Change and Food Security
- Science Diplomacy in Sustainable Development
- Natural Resources and Environmental Sustainability
- Artificial Intelligence in Sustainable Development
- Science Communication, Education, Culture, and Entrepreneurship

These sub-themes not only deepened the understanding of current challenges but also provided actionable strategies for integrating science, technology, and innovation sustainable development practices. By addressing these conference critical areas. the participants contributed collective effort aimed at forging a more resilient and sustainable future for communities worldwide.







it left a lasting impression on all who The first attended. **UDOM** International Conference on Science. Technology, and Innovation for Sustainable Industrial and Community Development fostered a collaboration of exploration, laying the groundwork future advancements. Researchers, academics, industry experts, and policymakers departed with renewed energy and a shared vision for a sustainable future. The momentum generated by this event ensures ongoing dialogue and cooperation in tackling global challenges through innovative scientific solutions.

#### Conclusion

Founded in 2007, UDOM has quickly become a beacon of higher education and research excellence in Tanzania. With a vision to offer value-added training, research, and public services, UDOM has a rich history of fostering academic and research growth. CNMS has led initiatives to integrate scientific advancements into practical applications for sustainable development. The successful organisation of the 1st International Conference on Science, Technology, and Innovation for Sustainable

Industrial Community and Development exemplifies UDOM's commitment to bridging the gap between academia and industry. The conference's success demonstrates UDOM's vision of a future where technology and sustainability go hand in hand, showcasing the university's role as a leader in scientific discourse and innovation. UDOM's dedication to fostering a culture of research and development ensures that the seeds of innovation planted during conference will grow, leading to a brighter, more sustainable future for Tanzania and the world.



# Speeding up SDG3: The UDOM's Scientific Conference on Health (USCHe) Takes the Stage

#### By Alfred Meremo, MD, MMed, FISN, PhD

**Department of Internal Medicine** 



The United Nations' Sustainable Development Goal Number 3 (SDG3) aims to ensure healthy lives and promote well-being for all by 2030. In pursuit of this goal, the University of Dodoma (UDOM) convened its inaugural Scientific Conference on Health (USCHe) from 29th to 31st May 2024 in Dodoma city. This vibrant annual gathering, established by UDOM's School of Medicine and Dentistry (SoMD) and the School of Nursing and Public Health (SoNPH), brought together an exceptional line up of local and international speakers and participants including researchers. practitioners, academics, students, policymakers, and government officials. The main theme for this first edition was "Healthy Lives and Wellbeing for All: Opportunities and Challenges," aiming to address pressing health issues and explore innovative solutions to advance SDG3. Launching and opening ceremony of USCHe on 29th May was graced by Dr. Godwin Mollel (MP), the Deputy Minister for Health who represented the Deputy Prime Minister of the United Republic of Tanzania, Dr. Dotto M. Biteko (MP).

Prior to the official launch of the conference, the organising committee organised a series of activities and programmes. On 25<sup>th</sup> May 2024, a fun run was conducted

within the UDOM campus to promote the importance of exercise and physical activity in fostering healthy lives and well-being.

From May 27th to 29th 2024, a highly successful three-day health check outreach programme was conducted at Uhuru Hospital in Chamwino district as part of the USCHe. Over 1000 individuals screened for various non-communicable diseases including hypertension, diabetes mellitus, kidney diseases, cervical cancer, eye and ENT diseases. Services such as mental health assessment, psychological counselling, and advice on nutrition and healthy diet were also offered during the outreach programme.

Insights and connections garnered during these activities and the conference itself constitute a crucial catalyst for UDOM to enhance its efforts in research, training, and service delivery in the pivotal fields of biomedicine and health. Collaboration with other stakeholders aims to effect substantial changes in the healthcare landscape.

The conference delved into critical topics such as health systems strengthening, non-communicable diseases, nutrition, food security, infectious diseases, and strategies for improving access to quality

reproductive, maternal, child, newborn, and adolescent health services took center stage at the conference. Other discussion areas included the magnitude and strategies to address the unmet needs of family planning services among adolescents and young adults, innovative technologies in healthcare and the role of genetics and biomedical science research in ensuring inclusivity and equity in healthcare delivery. The insights and connections gained during the conference serve as a vital catalyst for UDOM to continue its collaboration and action in the field.

Highlights from Some of the Keynote, Plenary, and Breakout Session Speakers

1. Trends in Non-Communicable Diseases Pattern in Africa: The Paradigm Shift (Prof. Kaushik L. Ramaiya, Consultant Physician (Internal Medicine /Endocrinology), Chief Executive Officer at Shree Hindu Mandal Hospital, Dar es Salaam, Tanzania, and Hon. Lecturer at the Department of Internal Medicine at Muhimbili University of Health and Allied Sciences, Dar es Salaam)

Non-Communicable Diseases (NCDs), injuries, and mental health conditions (NCDI/MH) constitute leading causes of disability and premature deaths globally, increasingly burdening African countries. NCDs alone account for 70%



premature deaths (aged 30-70) in occurring in low- and middle-income countries. While infectious diseases like malaria, tuberculosis, and HIV historically caused significant morbidity and mortality, Sub-Saharan African (SSA) nations have experienced an epidemiological shift, witnessing a rapid rise in NCDs. Socio-demographic changes such as rural-to-urban migration and shifts in dietary and lifestyle patterns contribute significantly to the increased prevalence of these risk factors in SSA. Therefore, compared to high-income countries, low- and middle-income nations continuously enhance policies aimed at safeguarding populations from NCD risks, notably tobacco use, harmful alcohol consumption, unhealthy diets, physical inactivity, and air pollution.

2. How Human Immune Responses Catch up SARS-CoV- 2 Variants and Other Corona Viruses (Prof. Takamasa Ueno, Joint Research Center for Human Retrovirus infection, Kumamoto University, Kumamoto, Japan)

In the recent COVID-19 pandemic, official data indicate Sub-Saharan Africa. includina Tanzania, experienced a relatively milder impact in terms of infection and mortality rates. This could be attributed to a significant level of cross-reactive immunity against SARS-CoV-2 in Africa, possibly due to circulation of various coronaviruses among different bat species in the region. However, the pandemic's impact may have been underestimated. as coronavirus infections and immune responses in the African population are not extensively studied.

To address this issue, attention turned to frontline healthcare workers (HCWs), who face a high risk of exposure to SARS-CoV-2 and other circulating coronaviruses

community. within Muhimbili collaboration with University of Health and Allied Sciences, 200 frontline HCWs from two tertiary hospitals in Dar es Salaam were enrolled two years into the SARS-CoV-2 pandemic. The focus was on investigating the heterologous nature of neutralizing immunity against various coronaviruses, including several SARS-CoV-2 variants of concern, as well as SARS-CoV-1, MERS-CoV, HCoV-229E, and HCoV-NL63.

Despite low vaccination rates (<20%), a wide range of neutralizing activity was observed in HCWs, with no neutralization detected MERS-CoV. Additionally, a strong correlation was found between neutralizing antibody titers for SARS-CoV-2 and SARS-CoV-1, but for other coronaviruses. Cross-neutralization titers against the newer Omicron sub-variants, BQ.1.1 and XBB.1.5, were significantly lower compared to BA.1 and BA.2 sub-variants. These findings underscored the broad neutralizing potency against coronaviruses in Tanzanian HCWs.

3. Medical Perspectives on End Stage Disease and Renal Transplantation: Insights From the Tokushukai Medical Group, the University of Dodoma, and the Benjamin Mkapa Hospital (BMH) Joint Initiatives (Dr. Alfred Meremo Department of Internal Medicine, School of Medicine, the University of Dodoma, Dodoma, Tanzania)

Chronic kidney disease (CKD) affects over 850 million people worldwide and caused more than 3.1 million deaths in 2019. It ranks as the 8th leading cause of death globally, with projections suggesting it could rise to the 5th leading cause of years of life lost by 2040 if left unaddressed. CKD often goes undetected until later stages, with less than 10% of patients aware of their condition at stages 3 or lower. Diagnosis typically occurs at stage 4 when symptoms

become more pronounced. In environments with limited resources. CKD can progress rapidly to end-stage kidney disease (ESKD).

Metabolic risk factors such as hypertension, obesity, high blood sugar, and elevated blood lipids contribute significantly to CKD risk. Lifestyle factors like tobacco use, physical inactivity, excessive alcohol consumption, poor diets, and air pollution also increase the likelihood of mortality from CKD. Access to kidney replacement therapy (KRT) inadequate globally. remains particularly low-and in middle-income countries (LMICs) where healthcare resources are Dialvsis resources sub-Saharan Africa, where available, face high demand but are often limited.

In Tanzania, it is estimated that there are approximately 5,800 to 8,500 people with end-stage kidney disease requiring dialysis or kidney transplant. As of 31st January 2022, 2,750 patients were receiving dialysis (32% of those needing it), and 325 had undergone kidney transplants. In 2016, UDOM initiated collaboration with the Tokushukai Medical Group to establish kidney transplant services at Benjamin Mkapa Hospital (BMH)-UDOM's teaching Hospital in Dodoma. Since 23rd March 2018, this partnership between the Ministry of Health, Tokushukai Medical Group, UDOM, and BMH has facilitated 40 kidney transplant operations.

4. Surgical Perspectives on End Stage Renal Disease and Renal Transplantation: Insights from the Tokushukai Medical Group, the University of Dodoma and the Benjamin Mkapa Hospital (BMH) Joint Initiatives (Prof. Masumbuko Mwashambwa, Department of Surgery, School of Medicine and Dentistry, The University of Dodoma; Department of Surgery, Benjamin William Mkapa Hospital)





In Tanzania, UDOM and BMH led the introduction of renal replacement therapies in Dodoma. BMH. conceived by UDOM, saw the initiation of renal replacement therapy under the leadership of the late Benjamin William Mkapa, the former President of Tanzania and second Chancellor of UDOM, along with Dr. Tarao Tokuda, the then Chairman of the Tokushukai General Incorporated Association (TGIA), in Tokyo, Japan. Their meeting resulted in the signing of a memorandum of understanding (MOU) between the Ministry of Health, Tanzania, and TGIA. This paved the way for strategic cooperation, including the donation of 10 dialysis machines and the commencement of dialysis training in 2013, followed by kidney transplants at BMH in 2018.

To date, BMH-UDOM has performed transplants. 40 kidnev male-to-female ratio stands at 2.6:1, with a mean age of 43.7 years (R: 11-63, SD 11.6) and a BMI of 24.7 (R: 17.7-65, SD 7.8). Hemoglobin levels averaged 11.8 (R: 6.07-15.7, SD 2.3), eGFR was 8.3 (R: 2.71-21, SD 4.9), serum creatinine measured 812 mmol/L (R: 237-1761.87, SD 352.8), and BUN was 18.02 mg/dl (R: 5.2-45, SD 8.6), with a mean albumin of

39.7 g/dl (R: 26.6-52, SD 1.706).

Strategic partnership and teamwork among UDOM, BMH, and TGIA have successfully established sustainable kidney transplantation service in Dodoma. This initiative has benefitted high-risk patients who otherwise would have required referrals abroad. Despite facing various challenges, the transplantation programme continues to progress steadily.

5. Fostering Global Health Resilience and Sustainability: Mobilising Glocal Resources and Expertise to Meet the 7-1-7 Target for Outbreak Detection, Notification, and Response Tanzania (Prof. Gerald Misinzo, SACIDS Foundation for One Health, Sokoine University of Agriculture)

To end pandemics, it is crucial to swiftly detect the earliest signs of potential outbreaks and implement local measures to prevent global spread. Early detection and pathogen identification represent the most achievable and cost-effective methods to halt local threats from global escalating into crises. Next-generation sequencing technologies now allow for timely identification and genetic profiling of

pathogens that are significant to both animal and public health during outbreaks.

Currently, field-deployable genomic utilise technologies battery-powered nucleotide amplification thermocyclers, electrophoresis machines. next-generation sequencers for confirming outbreaks and identifying pathogens at the community level in humans and animals. This setup has facilitated detection and genetic characterisation of pathogens in reservoirs, vectors, animals, and demonstrating humans. application in One Health and contributing towards achieving the 7-1-7 target to enhance global pandemic preparedness.

6. Successes and Challenges in Antimicrobial Stewardship in a Country Setting: Developing **Implications** and Opportunities (Prof. Jeremiah Seni. Catholic University of Health and Allied Mwanza, Tanzania: Sciences, Bugando Medical Centre, Mwanza, Tanzania: National Antimicrobial Stewardship Technical Working Group - AMR MCC, Tanzania) Antimicrobial resistance (AMR)



poses significant global challenges, with socio-economic, clinical, and economic repercussions. The persistence of multidrug-resistant undermines effective bacteria responses and jeopardises the limited options for antimicrobial treatment. Therefore, there is a critical imperative to advance antimicrobial stewardship (AMS) programmes.

Currently, AMS programmes are operational in 29 hospitals across Tanzania, comprising 9 tertiary, 13 secondary, and 7 primary facilities, including 3 private hospitals. Tanzania consistently submits AMR antimicrobial consumption data to WHO-GLASS and conducts AMS assessments using standardised tools such as WHO-PPS and WHO-AMS Core Element Indicators at national and facility levels.

The country's robust AMS performance is evident from its ranking in the 2<sup>nd</sup> WHO Joint External Evaluation, achieving a indicative of developed capacity (level 3), and scoring 106 out of 132 on the national core elements for AMS in the WHO African Region, placing Tanzania 1st among 31 countries. Moreover, Tanzania has developed a National AMS curriculum accredited by all relevant professional bodies in the healthcare sector, aimed at enhancing human resource capacity. Furthermore, Tanzanian AMS experts actively engaged are capacity-building initiatives across other African nations.

7. Inequalities in Availability of **Obstetric Services Hinders Provision** of Quality Integrated Care for HIV, Tuberculosis and Malaria During Antenatal and Postnatal Care in Tanzania: A Mixed Methods Study (Deogratius Bintabara, The University of Dodoma, Mwajuma Mdoe. The University of Dodoma, Maria Rweyemamu, The University of Dodoma; Liverpool School of Tropical Medicine-LSTM, Lalashe Kiretun, The

University of Dodoma, & Leonard Katalambula, The University Dodoma)

Tuberculosis (TB) increasingly is recognised as a significant non-obstetric cause of maternal mortality worldwide, accounting for approximately 15-35% of all indirect maternal deaths. In low-resource settings like Tanzania, where a majority of these deaths occur, there is limited information on the availability and quality of integrated Antenatal Care (ANC) and Postnatal Care (PNC) services for HIV, Tuberculosis (TB), and Malaria. This lack of data hinders planning programmes implementation of aimed at improving service quality.

A survey of 20 selected health facilities in Dodoma region, Tanzania, varying infrastructure revealed challenges: only 50% had consistent electricity, 55% had reliable water supply, 20% had onsite telephones, and 40% had functional ambulances. In terms of staff training on integrated HIV, TB, and Malaria services in ANC and/or PNC, 55%, 25%, and 10% of facilities reported recent in-service training, respectively. Availability of essential diagnostic and treatment tools varied, with 100% availability of HIV rapid tests and Malaria rapid tests, but only 25% availability of GeneXpert testing kits for TB. Uterotonic drugs were available in 25% of facilities, anti-convulsants in 30%. anti-hypertensives in 65%.

Healthcare providers highlighted significant challenges in providing high-quality integrated care, including uneven distribution of obstetric insufficient in-service training, lack of TB diagnostic tools, and disparities in HIV, TB, and Malaria service provision within and between facilities. Addressing these challenges requires the establishment of treatment guidelines, enhanced staff training, and improved supply chain

management to ensure consistent availability of essential resources. These measures are essential for delivering quality integrated care for HIV, TB, and Malaria during ANC and PNC in Tanzania.

8. Tanzania Has Made Significant Progress in Reduction of Maternal and Child Deaths. What are the Ingredients for This Success? (Dr. Mohamed Makuwani. Department of Reproductive, Maternal and Child Health, Ministry of Health)

Introduction: Reports Tanzania Demographic and Health Survey—TDHS (2022),Household Census (2022), United Nations (2023), and Routine data (2022) indicate a decline in maternal mortality ratio (deaths per 100,000) to 104, 194, 265, and 104 respectively. TDHS (2022) also highlights a reduction in the under-five mortality rate per 100 live births from 67 in 2016 to 43 in 2022. The newborn mortality rate per 1,000 live births, as reported in TDHS (2022), is 24, compared to 25 in 2016 and 26 in 2010. These figures demonstrate Tanzania's progress towards global commitments to SDG 3.

utilised Design: The study cross-sectional quantitative desk review of the health system from 2015 to 2023 and beyond.

Results: Leadership has driven progress: President Kikwete's MMAM (2007) and RMNCAH Sharpened One Plan (2014-2016). President Magufuli's construction of EmONC Health **Facilities** (2017-2021). President Samia's launch of Jiongeze Tuwavushe Salama Campaign (2018), and the signing of Nutritional Contracts by the RCs (2022). These initiatives improved UN EmONC Process Indicators. increasing EmONC service access within 5 kilometres to 75% - 85%, institutional delivery to Caesarean section rate to 11%, and reducing case fatality to 0.7%. Additional contributions include the





use of telemedicine through WhatsApp groups by PHC for accessing specialised care remotely. Telemedicine facilitated virtual reviews of maternal and perinatal deaths, identifying suboptimal skills, practices, attitudes, and leadership as leading causes of maternal and newborn deaths, thereby enabling targeted interventions. The expansion of paved road networks and improved means of transport, including bodabodas; increased access to clean and safe water supply in towns (86%) and villages (72%); electricity coverage across all districts, 3,225 out of 3,956 wards (82%), and 10,294 out of 12,268 villages (84%); and enhancements in mobile phone and internet connectivity, have all proven instrumental in reducing maternal and child mortality.

Conclusion: Tanzania aims to achieve SDG 3 targets of reducing MMR to < 70 per 100,000 live births and U5MR to < 25 per 1,000 live births by 2030. However, neonatal care lags behind, necessitating increased investment. Fulfilling SDG 3 requires political commitment, strengthening of the health system, and investment in services beyond healthcare.

Summarily, UDOM's impact transcends mere health conferences; it orchestrates expansive gatherings that unite partners from across Tanzania and beyond. While this narrative touches on insights from select USCHe speakers, many distinguished experts contributed to the May 2024 annual event. USCHe stands out as a dynamic hub of ideas, unveiling innovations and fostering collaborations aimed at addressing contemporary healthcare challenges with ingenuity. These conferences are fundamental in positioning UDOM at the forefront of advancing Sustainable Development Goal Number 3 (SDG3), envisioning a future where healthcare solutions are approached with creativity and effectiveness. The second USCHe is scheduled to take place from 28th to 30th May 2025.

## **POEM**

#### By Dr. Emmanuel Kilatu, Department of Foreign Languages and Literature



#### My Pal, Ever Heard of Kikokotoo?

Kikokotoo, a new formula for calculating retirees' benefits, Has left many academicians deeply concerned about their Coming tomorrow.

It has brought a chronic mental pessimism
Making them expect the worst uncertain tomorrow
Some would think clinging to their jobs
To make ends meet
Even when doing so makes their already tired bones utterly
Very immobilised with zero agility and overburdened mental acumen.

Where legal retirement would be a desired option,
Many would think of going beyond,
Thinking of lecturing, lecturing and lecturing
Even when their bodies and heads refuse to do them justice
Since they have outlasted their efficiency both mental and physical.

Yet; because of you dear Kikokotoo, they cling to lecture precincts Because of you, contracts in both private and public universities Are now sought and entered even at the price of death Their desirability may be called into question, Yet; they are entered into regardless all in a bid to make ends meet.

Kikokotoo, why are you so cruel?

Never troubled yourself to see how these retiring lecturers were overburdened During the blossoming and vivacity of their physical and mental efficiency?

Lecturing in theatres filled to the brim

Beads of sweats wetting their only hanky

Probably, it is time the kikokotoo were revisited

Short of which, there will be more graves of us lecturers dying

Chasing jobs beyond our legal tenures

Dying en masse than those slain in the hottest combat.



## **ACADEMIC PROMOTIONS**

#### FROM LECTURER TO SENIOR LECTURER



Dr. Barnabas .M. Msongaleli

**Natural Resources Management and** Climate Change) Department of Geography and Environmental Studies College of **Humanities and Social Sciences (CHSS)** 



Dr. Fabiola .F. Hassan

Isimu Fafanuzi (Fonolojia, Mofolojia, Sintaksia na Semantiki) Department of Kiswahili College of Humanities and Social Sciences (CHSS)



Dr. Enock .E. Makupa

(Natural Resources Management, Wildlife Conservation and Livelihoods) Department of Geography and **Environmental Studies College of Humanities and Social Sciences (CHSS)** 



Dr. Augustino .E. Mwakipesile

(Environmental and Natural **Resources Management)** Department of Geography and Environmental Studies College of Humanities and Social Sciences (CHSS)



Dr. Bernard .M. Samwel

(Material Physics and Renewable Energy)
Department of Physics College of Natural and Mathematical Sciences (CNMS)



Dr. Deborah .A. Ngusa

(Community Development) Institute of Development Studies (IDS)

("ongratulations































The First International Conference on Science, Technology, and Innovation at **CNMS News in Pictures:** 

10th to 12th June, 2024



















































## **OBITUARY**



Ms. Mary J. Maina

Ms. Mary J. Maina was a member of UDOMASA, who last served as an Assistant Lecturer in the Department of Sociology and Anthropology. She sadly passed away on 1st June, 2024 in a tragic road accident. During her life here at UDOM, Ms. Maina established herself not only as a committed and compassionate member of academics but also a humble and loving friend among her colleagues. Her loss is deeply felt by academic colleagues and the wider UDOM community.

Her warmth, kindness, and generosity of spirit will be sorely missed by all who had the privilege to interact with her. Ms. Maina's legacy will live on through the many lives she touched within and beyond the University, UDOMASA will remember her active participation that contributed to the building of our strong, united association.

May Her Soul Rest in Eternal Peace!

