



SUSTAINABLE
DEVELOPMENT
GOALS



20
23

Sustainable
Development
Goals Report



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Malawi University of Business and Applied Sciences (MUBAS) Sustainable Development Goals Report

Introduction

The Malawi University of Business and Applied Sciences (MUBAS) was officially established under the MUBAS Act of 2019, positioning itself as a leading institution dedicated to fostering academic excellence, research, and innovation in the private sector. It is a premier higher learning institution in Malawi, renowned for its innovative academic and research programs. It operates with a mission to advance knowledge and professional competencies through outstanding teaching, research, and industry engagement. MUBAS enrolled its first cohort of students in 1965 under its original identity as the Polytechnic, a constituent college of the University of Malawi (UNIMA). MUBAS officially became an independent university following a rebranding and restructuring process in 2021. Since then, it has expanded its impact by focusing on innovation, entrepreneurship, engineering, and applied sciences, positioning itself as a leader in education tailored to Malawi's development needs.

MUBAS' vision is to be an inclusive, engaged, entrepreneurial, innovative, and research-intensive university that significantly contributes to sustainable development. Its mission focuses on providing high-quality education, research, consultancy, and community service that foster socio-economic growth. The university's core values include excellence, integrity, inclusivity, innovation, and relevance. The university has shown significant growth in academic programs and research outputs, particularly in areas such as science and technology, engineering, business, communication, and media studies. Through its various schools: School of Science and Technology, School

of Built Environment, School of Business and Economic Sciences, School of Education, Communication and Media Studies, and School of Engineering, MUBAS offers diverse programs from undergraduate to doctoral levels. Its centres: Centre for Water, Sanitation, Hygiene and Appropriate Technology Development (WASHTED), Management Development Centre (MDC), Institute of Continuing Education (ICE), Business Incubation Centre (BIC), Printing Press Centre (PPC), Engineering and Technical Services Centre (ETSC), Transport Technology Transfer Centre (TTTC), further enhance its role in addressing pressing global challenges.

This sustainability report presents MUBAS' drive in contributing to the global aspirations as guided by the 17 Sustainable Development Goals (SDGs). This 2023 MUBAS SDG report is the result of a collaborative, inclusive process across the University. The efforts on sustainability are showcased in cases of research, teaching, engagement and operations, and they all demonstrate broad commitment to sustainability at MUBAS. This report presents selected cases on sustainability activities at MUBAS; it is not an exhaustive review of MUBAS' sustainability-related work.



"We strive to be an innovative, entrepreneurial and research-intensive university"

Assoc. Prof. Nancy Chitera-
Vice-Chancellor

1 NO POVERTY



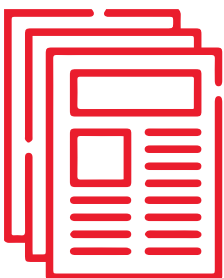
End poverty in all its forms everywhere

Incubation Center, a strive for no poverty

Through its Incubation Center, the Malawi University of Business and Applied Sciences (MUBAS) addresses SDG 1: No Poverty, by fostering entrepreneurship, innovation, and skill development among students and local communities. Through its support for startups and small businesses, the center helps individuals, particularly from disadvantaged backgrounds, to create sustainable livelihoods. The incubation center provides resources, mentoring, and access to funding opportunities, enabling entrepreneurs to launch and grow their ventures. This approach contributes to poverty reduction by creating job opportunities, promoting economic self-sufficiency, and encouraging inclusive economic growth.

With high rates of unemployment among young people in Malawi, MUBAS in partnership with USAID's Strengthening Higher Education Access in Malawi Activity (SHEAMA) launched the Dream Builder Youth Entrepreneurship Incubation Initiative (DYEII). This was an online entrepreneurship program focusing on the basics of business incubation and acceleration. It covered relevant topics such as business idea generation, marketing, finance management, human resources management, and business proposal development among others. MUBAS and USAID's SHEAMA awarded grants not exceeding USD2,500 per successful candidate in order to facilitate business incubation and acceleration. The aim was to ensure that upon graduation, students are

Over \$200,000 received by MUBAS for enhancing entrepreneurship



1 PUBLICATION



“End poverty in all its forms everywhere”



^ MUBAS Vice Chancellor receives \$180,000 grant from the European Union to support the Zantchito project

equipped with skills relevant for both formal and informal employment, including entrepreneurship.

Grants towards no poverty

MUBAS received a grant of \$180,000 from The European Union (EU) towards the Zantchito project. This funding provides space and resources for

budding entrepreneurs to receive skills and business training for a period of over six years. MUBAS receives \$30,000 in funding per year. From this training, candidates learn to make products that have market value and make their business sustainable and enable them to compete on the global market.



2 ZERO HUNGER



End hunger, achieve food security and improved nutrition and promote sustainable agriculture

Food security research

Hunger remains a critical global challenge, and Malawi, with a Global Hunger Index of 21.9, is heavily impacted. At MUBAS, our Food Science Unit within the Physics and Biochemical Sciences Department is addressing this issue by advancing research in Food Production, Food Safety, Food Processing, and Food Quality Management. Through these efforts, our researchers aim to improve local food security and contribute to sustainable agricultural practices that ensure safe, nutritious, and accessible food.

Food Security education

At MUBAS, we are dedicated to addressing hunger, enhancing food security, and promoting sustainable food practices through our diverse

academic programs and initiatives.

Our Bachelor of Science in Food Science and Technology provides students with the knowledge and skills to tackle critical challenges in food production, safety, and sustainability. For advanced studies, we offer the Master of Philosophy (MPhil) in Industrial Process Technology and the Doctor of Philosophy (PhD) in Industrial Technology, which emphasize innovation and efficiency in food systems and industrial processes.

In addition, our certificate programs in Food Processing, Value Addition and Food Preservation offer targeted training to improve food quality and reduce waste. These programs are essential for fostering local economic development and ensuring long-

Through our Incubation Centre, MUBAS supports aspiring entrepreneurs in food production



10 PUBLICATIONS



“End hunger, achieve food security and improved nutrition and promote sustainable agriculture”



Some of the products from our Incubation Center

term food security. By equipping individuals with practical skills, these individuals help communities maximize agricultural potential while minimizing losses. Through our Incubation Centre, MUBAS supports aspiring entrepreneurs in food production, offering hands-on training in food innovation and sustainable food systems. This initiative not only nurtures business growth but also contributes to a robust and resilient food industry, creating sustainable solutions to combat hunger and support community well-being.

Food production

Our Food Section plays a crucial role in advancing food security and supporting sustainable food

production. We develop products and provide training on the production of food items like mayonnaise, jam, and tomato puree, fostering skills and knowledge in local food manufacturing. Our Industrial Park is also equipped with machinery for producing a variety of food products, including soy milk and flour, and features a mini bakery where various processing skills are taught. Additionally, our Agricultural Mechanization Project addresses food insecurity by providing agricultural machinery and technical support, promoting efficient and resilient farming practices.



3 GOOD HEALTH AND WELL-BEING



Ensure healthy lives and promote well-being for all at all ages

Innovative plastic recycling

Plastic pollution poses a significant threat to environmental health and sustainable development. At the Malawi University of Business and Applied Sciences, we are addressing this challenge through an innovative Plastic Recycling Research Project under [the University Innovation Pod \(UNIPOD\)](#).

Our research aims to recycle plastic waste, such as discarded plastic bottles, into high-quality 3D printing filament. This project not only tackles waste management but also provides a sustainable source of materials for various applications, contributing to healthier communities and a cleaner environment.

Leading the way in health and safety education

We are Malawi's largest provider of Environmental Health and



Recycling plastics for Environmental Sustainability

Biomedical Engineering Experts and are the only institution offering graduate training in Health and Behavioral Change Communication. Our pioneering programs also extend to Occupational Safety and Health, equipping graduates with critical



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“ Ensure healthy lives and promote well-being for all at all ages ”



 **MUBAS Staff football team**

skills to enhance workplace health standards and address health challenges in diverse sectors.

Transforming healthcare access through community engagement:

MUBAS is dedicated to public and civic engagement by integrating community service with impactful learning experiences that enrich both students and society. Through our Department of Mechanical Engineering, we engage students and staff in the manufacturing of essential hospital equipment and accessories such as beds that are distributed to public healthcare facilities. One of our greatest impact was the manufacturing of 50 specially designed cholera-patient-supporting beds that were delivered to the Ministry of Health in 2023 through the Seed Global Health project. This initiative supports healthcare quality and accessibility, addressing critical

needs during health crises like Cholera and other disease outbreaks.

MUBAS's commitment to well-being through sports

MUBAS is committed to promoting health and well-being within the university and the surrounding community through accessible sports and recreational activities. Our free and low-cost sport sessions create inclusive opportunities for physical activity, supporting both physical health and mental well-being. One of our key initiatives is the MUBAS Fun Walk, a monthly event that encourages participants to connect, socialize, and engage in physical exercise. These regular activities contribute to a healthier, more connected community by promoting well-being through social engagement and active lifestyles, reinforcing our commitment to building a healthier future for all.



4 QUALITY EDUCATION



Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

MUBAS Design Studio empowers innovators through practical training

MUBAS goes beyond offering formal diplomas and degrees by empowering students and community innovators with practical skills through the MUBAS Design Studio training workshops. These workshops are designed to foster innovation and technological development by providing hands-on training

The programs are also available at various centers across all three regions in Malawi

in essential areas such as basic electronics and circuit design, 3D printing and laser cutting, and 2D and 3D CAD design. By focusing on these key areas, MUBAS equips participants with the tools and knowledge needed to turn ideas into tangible solutions, driving creativity and problem-solving within the university and the wider community.

Bridging educational gaps through ICE

MUBAS established the Institute of Continuing Education (ICE) to facilitate access to education at all levels for individuals of all genders and those from less privileged backgrounds who may struggle to pay full tuition fees for standard programs. The offerings consist of a Certificate in Secretarial Studies, a Diploma in Computing and Information Systems, and many other programs. The programs are also available at various centers across all three regions in Malawi, extending beyond the campus to ensure equitable access for all individuals, regardless of their location, whether urban or rural.



Male student engaged in the MUBAS mining training



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Achieve gender equality and empower all women and girls

MUBAS is committed to transforming into a centre for excellence for Gender Equality and Social Inclusion. The University outlines deliberate efforts in promoting gender equality in alignment with Sustainable Development Goal 5 (SDG5) i.e. Gender Equality and Women Empowerment. Through a variety of planned activities and policies, these initiatives aim to address and mitigate gender differences within the institution and beyond, especially within educational, professional, and wider community settings.

Manuals and policies

MUBAS developed a comprehensive manual to educate secondary school students (high school students) in the country, specifically school-going girls, on issues related to gender-based violence (GBV). This manual provides critical knowledge and awareness on identifying, preventing, and addressing GBV, empowering girls to protect

Protection from Sexual Exploitation and Abuse Policy was instituted to protect individuals

themselves and advocate for safer learning environments.

In response to the need for safeguarding policies at MUBAS, Protection from Sexual Exploitation and Abuse Policy was instituted to protect individuals e.g. women and girls against misconduct. This policy is a critical measure to create a safe and respectful environment, where staff and students feel supported and protected from exploitation or abuse.

At MUBAS, the existence of the Gender Equality Policy is to formalize and promote equitable and social inclusion practices across institutional settings, including for staff members and students. This policy is an institutional guiding document to ensure that gender equity is systematically integrated into institutional practices, fostering



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STEM, GBV, PSEA training with female secondary school students

a more inclusive environment. With proven evidence, the university's commitment to gender equality is also demonstrated through its leadership composition i.e. the University's Vice-Chancellor, the Librarian, the Executive Dean of the School of Business and Economic Sciences, and several heads of academic departments are women. This diverse representation highlights MUBAS's dedication to empowering women in leadership roles and demonstrating gender balance across its academic and administrative divisions.

Initiatives

The Malawi University of Business and Applied Sciences (MUBAS) organized a specialized seminar for female staff members, focusing on empowerment, personal development, and leadership. The seminar was designed to enhance the professional skills and self-confidence of women in their roles, helping to create a more inclusive and supportive workplace.

In addition to this, MUBAS demonstrated its commitment to addressing gender equality issues through a sensitization campaign targeting secondary school students. The campaign raised awareness on

“Achieve gender equality and empower all women and girls”



STEM, GBV, PSEA training with female secondary school students

Gender-Based Violence (GBV) and Protection from Sexual Exploitation and Abuse (PSEA), underscoring the university's proactive approach in promoting gender equality both within its community and in the wider society. These initiatives reflect MUBAS's ongoing dedication to empowering women and fostering an environment of equality and respect.

Gender Equality and Social Inclusion (GESI) Project

MUBAS launched the GESI project to address broader issues of gender equality and social inclusion. This

project promotes equitable access to resources, opportunities, and decision-making for all, aiming to reduce social barriers and create a more inclusive and diverse community. Through the mentioned activities, significant strides have been made in advancing gender equality in conforming with SDG5, protecting the rights of women and girls, and creating more supportive environments in education for girl children and the workplace for women. MUBAS's continued commitment specifically aligns with the global agenda to achieve SDG5 and foster sustainable development.



6 CLEAN WATER AND SANITATION



The impact of sustainable wastewater treatment

One in three people globally lack access to safe drinking water, particularly in rural areas where conventional water treatment systems are not feasible. MUBAS, through its WASHTED Centre, addresses this issue by promoting affordable and user-friendly [Household Water Treatment and Storage \(HWTS\)](#) methods such as solar disinfection. These low-cost techniques are tailored to rural communities and aim to provide sustainable solutions for clean water and sanitation. MUBAS also works to raise awareness and drive behaviour change within local communities, ensuring that these

interventions are both effective and long-lasting, thereby contributing to Sustainable Development Goal 6: Clean Water and Sanitation. These initiatives have demonstrated the potential for localized solutions to global water challenges, and through ongoing research and community engagement, MUBAS continues to make strides toward a water-secure future for all.

Collaborative efforts for safe water and sanitation in Makwelani village”

In partnership with Tufts University, WASHTED is actively working to provide safe potable water and sanitation education to the people of Makwelani Village in Blantyre. This collaboration is formalized through a Memorandum of Understanding (MOU) that establishes a five-year partnership between MUBAS and Tufts University. This initiative reflects MUBAS’s commitment to addressing water and sanitation challenges in rural communities, leveraging expertise and resources from both institutions to ensure sustainable, impactful solutions. The partnership plays a pivotal role in enhancing community health and environmental awareness, contributing to broader development goals in Malawi.



Joint field testing of borehole water



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7 AFFORDABLE AND CLEAN ENERGY



Ensure access to affordable, reliable, sustainable and modern energy

Renewable energy and sustainable charcoal production

The Malawi University of Business and Applied Sciences (MUBAS), through the Department of Mechanical Engineering, has made a commendable contribution to the achievement of universal access to modern energy. This is evident in the increased share of renewable energy in the global energy mix; and improved energy efficiency through research and consultancy. In partnership with the Government of Malawi and UNDP, MUBAS through the Department has developed enhanced kilns for charcoal production, recognized by the Climate Innovation Challenge Award. These units have been deployed in Lilongwe, T/A Masula, for a pilot project that promotes the planting of [giant bamboo](#) for sustainable charcoal production. This initiative provides renewable

This initiative provides renewable energy solutions like bamboo charcoal for cooking and other thermal needs, helping to prevent deforestation from the unsustainable harvesting of natural trees for charcoal.

energy solutions like bamboo charcoal for cooking and other thermal needs, helping to prevent deforestation from the unsustainable harvesting of natural trees for charcoal.

More information on this project is available through UNDP resources.



UNDP/Mechanical Engineering bamboo firewood and charcoal production at TA Masula in Lilongwe



13 PUBLICATIONS





Master of Science in Sustainable Energy students orientation program

MUBAS and USAID make an impact on sustainable energy

MUBAS, through the Department of Mechanical Engineering developed a Master of Science in Sustainable Energy program, funded by DFID (now UKAID) through the University of Cape Town. This program educates graduates in renewable energy with a focus on off-grid systems, requiring students to develop either a product or software as part of their thesis work. We are currently hosting our third cohort. A technology for a thermal electric generator, which converts heat from firewood cookstoves into electricity for lighting and phone charging, has already been developed. Additionally, some research students are advancing biogas purification technologies and exploring the productive use of renewable energy. This Master’s program also aims to enhance access to research, technology, and investments in clean energy.

Access to affordable, reliable, and sustainable clean energy, solar projects

The need for clean, affordable, and sustainable energy cannot be overemphasized. That is why MUBAS, through WASHTED, and in collaboration with the University of Strathclyde (Lead Partner) and the United Purpose and Community Energy Malawi, is implementing a

project aimed at increasing access to sustainable energy for rural communities in Dedza and Balaka Districts, thereby enabling economic development and improved livelihoods. The project began in October 2018 and ran until March 2023.

The project has implemented various activities, including the deployment of Renewable Energy (RE) systems like Micro-grids and Energy hubs as sustainable businesses; development of remote monitoring central sites and websites; and the facilitation of workshops for research dissemination and RE consultative meetings. Additionally, the project is piloting District Energy Officers for Renewable Energy, tasked with planning and implementing district energy projects. If successful, this management structure will be proposed for national expansion. The project received funding from the Scottish Government.



Sustainable off-grid community energy in Dedza District



8 DECENT WORK AND ECONOMIC GROWTH



Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

The University Innovation Pod (UNIPOD) is a distinctive venture situated at Malawi University of Business and Applied Sciences. It became operational in June, 2023 with its primary objective of providing essential support to youthful innovators by providing them with cutting-edge infrastructure for innovation prototyping, experimentation, and small-scale manufacturing. The UNIPOD aims to foster the creation of prototypes that hold significant potential for transforming into commercially successful products.

The UNIPOD goes beyond providing equipment and programs within the university environment; it adopts a comprehensive strategy. This strategy involves enhancing the entrepreneurial mindset among innovators through the Business Nursery programs and reinforcing the university's Technology Transfer Office (TTO). Additionally, it involves establishing the capability to

implement Intellectual Property registration and royalty programs. This hub is also accessible to secondary and primary schools, providing children with early exposure to advanced technologies. The goal is to nurture inventive minds and align their development with the vision of Malawi 2063.

The UNIPOD goes beyond providing equipment and programs within the university environment.



Royal Academy learning visit to UNIPOD



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“Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all”



^ *Engineering design process workshop at UNIPOD - ideation to prototyping*

Human capital development - a key to Job creation and sustained economic growth

MUBAS continues to strive towards the development of human capital as one way of complimenting government to increase access to higher education. This is not only in line with the National Education Sector Investment Plan, but also resonates well with the agenda for SDG 8 which aims at promoting sustained inclusive and sustainable economic growth. Education is key to success, such that increased access to education will enable the community to attain their goals.

In addition, UNIPOD provides opportunities for students and young innovators to gain hands-on experience in prototyping, design, and manufacturing.

Empowering future leaders on sustainable economic growth

Undergraduate students at MUBAS, particularly those in the School of Business and Economic Sciences, are equipped with the skills and knowledge to promote inclusive and sustainable economic growth, employment, and decent work for all. Through its diverse programs, such as Business Management, Accountancy and Finance, and Economics and Law, the school bridges academic theory with real-world applications, fostering entrepreneurial and professional competencies aligned with global and local development needs.





Build resilient infrastructure, promote sustainable industrialisation and foster innovation

Innovation and technological advancement

Through the Designer Innovators Program at UNIPOD, we support young innovators by advancing their prototypes into market-ready products. The state-of-the-art UNIPOD facility provides tools for product development, prototyping, and reverse

engineering, empowering students and community members to create solutions that address local and global challenges. MUBAS further advances public and civic engagement through UNIPOD's dedicated local manufacturing efforts. UNIPOD integrates sustainable practices across diverse projects to meet Malawi's

industrial and community needs. It produced a 3D-printed model of the Malawi Housing Corporation (MHC) office in Lilongwe and manufactured a custom-printed circuit board for the Malawi University of Science and Technology. In addition, UNIPOD is enhancing energy infrastructure by designing machine parts, such as Vesconite bushes, for Nkula Power Station's generation equipment.

We further advance innovation through our AI Lab which is focused on improving the World Health Organization's Integrated Disease Surveillance and Response (IDSR) strategy



The UNIPOD building at MUBAS is a hub for refining knowledge, skills, and innovations for public benefit



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3D physical model of the proposed Malawi Housing Corporation offices in Lilongwe

by leveraging large language models to create an AI assistant capable of providing instant access to the Malawi Technical Guidelines for IDSR. Additionally, MUBAS hosts the annual [IndabaX Malawi](#) symposium, a chapter of Deep Learning Indaba, to drive research and skill development in machine learning, cultivating a growing community of tech innovators in Malawi. Through these initiatives, MUBAS is driving technological progress and supporting sustainable industrial solutions essential for national and regional development.

UNIPOD and Hello Tomorrow Initiatives: Empowering the youths

Our UNIPOD, the first innovation and prototyping lab of its kind in Malawi, offers students and young innovators an invaluable platform to explore prototyping, design, and manufacturing. This pioneering space enables students to turn their ideas into practical solutions, bridging the

“ Build resilient infrastructure, promote sustainable industrialisation and foster innovation ”

gap between academic theory and industry needs.

Furthering this mission, our Hello Tomorrow project, an initiative under the [MUBAS Innovation Hub](#), provides foundational courses in Scratch and Python programming to children aged 6 to 17. Through this program, 122 young graduates have already gained vital coding skills, fostering a generation of tech-savvy, innovative thinkers.

Driving sustainability and innovation in Malawi’s industrial landscape

At our state-of-the-art UNIPOD facility, we provide tools and resources for innovation, prototyping, and reverse engineering. This hub is a vital platform for developing technologies like the Compact Disc No-Till (CDN) machines, designed to support sustainable agricultural practices through efficient land preparation. A key initiative underway is our Agricultural Mechanization Project, which aims to fabricate a full-scale tractor and handheld motorized machinery tailored to the needs of Malawian farmers. These innovations are set to improve productivity and resource efficiency in farming, addressing the critical demand for modern, accessible agricultural tools.



10 REDUCED INEQUALITIES



Reduce inequality within and among countries

Advancing inclusivity through education and engagement

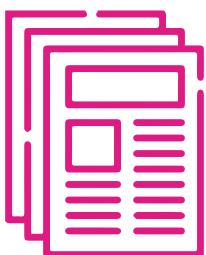
The Malawi University of Business and Applied Sciences (MUBAS) actively addresses Sustainable Development Goal (SDG) 10: Reduced Inequality, by implementing initiatives that promote social and economic inclusivity across its academic programs, research endeavours, and community outreach activities. Guided by its strategic plan, [vision, mission statement, and core values](#), MUBAS prioritizes inclusivity, equitable access to education, and active community engagement. The university's mission to be an "inclusive, engaged, innovative, and research-intensive university" underscores its commitment to fostering a learning environment that bridges social and economic divides within Malawi.

A key initiative at MUBAS is the provision of [scholarships](#) and financial aid programs designed to enhance access to higher education for underrepresented and economically disadvantaged students. These programs aim to reduce educational inequality by

ensuring that financial challenges do not hinder talented individuals from pursuing their academic aspirations. By targeting marginalized groups, MUBAS empowers students from diverse backgrounds to gain the skills and knowledge necessary to contribute to Malawi's socioeconomic development.

Addressing the inequality gaps through research

Additionally, MUBAS conducts impactful [research](#) addressing issues related to inequality, including income disparities, gender equality, and social mobility. The university's research outputs provide critical insights that inform public policy and contribute to evidence-based solutions for inclusive development. Through its dedication to studying and addressing inequality, MUBAS plays a pivotal role in shaping a more equitable society and reducing barriers that hinder social and economic progress in Malawi.



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11 SUSTAINABLE CITIES AND COMMUNITIES



Make cities inclusive, safe, resilient and sustainable

Sustainable communities through research and collaboration

MUBAS conducts interdisciplinary research to help cities become inclusive, safe, resilient, and sustainable. We have projects led by our experts to address key urban issues,

Numerous partnerships and recognitions that underscore its impact on sustainable city development

such as mitigating flooding risks in Zomba City. Through collaborations with partners like Oxfam Malawi and UN-Habitat, these initiatives work to restore green spaces and develop flood defenses, directly contributing to the safety and resilience of local communities.



Bringing theory to life! MUBAS students and lecturers from the School of Built Environment pose with newly acquired, state-of-the-art equipment.

MUBAS' commitment to SDG 11 has led to numerous partnerships and recognitions that underscore its impact on sustainable city development. These achievements include formal partnerships with institutions like Jefferson University and project collaborations with international organisations aimed at creating safer, more resilient urban environments in Malawi. The institution's operational efforts reflect its dedication to integrating sustainable practices across its academic, research, and public engagement spheres.



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PUBLICATIONS





“Make cities inclusive, safe, resilient and sustainable”



Blantyre, the commercial city of Malawi. Located in the southern region of Malawi, in Blantyre District

UNIPOD and sustainable cities

MUBAS actively engages in public-oriented projects like the UNIPOD Housing Project, which addresses sustainable housing solutions. This project aligns with community development goals by focusing on infrastructure improvements that support resilient housing and safer urban living. These activities foster a direct connection between MUBAS and the communities it serves, promoting sustainable city planning practices through public engagement initiatives. This technology supports effective decision-making by offering clearer insights into spatial layouts, design aesthetics, and integration with the surrounding environment. The project

highlights our commitment to building sustainable urban spaces.

Empowering future urban planners

MUBAS equips students with the skills to make cities more inclusive, safe, and sustainable. Students in physical planning, land surveying, and urban development programs engage in real-world projects that address urban challenges. Collaborations, such as the MOU with Jefferson University, provide additional opportunities for students to learn about sustainable urban development through international engagement, further enhancing their skills in creating resilient and inclusive urban environments.



12 RESPONSIBLE CONSUMPTION AND PRODUCTION



Ensure sustainable consumption and production patterns

Community education in sustainable consumption of water resources

Recognising that potable water is a scarce resource in most peri-urban and rural communities in Malawi, the Malawi University of Business and Applied Sciences (MUBAS) champions [community engagement and education](#) in sustainable uses of water resources and equipment through various awareness and outreach programs. Through its WASHTED Centre, MUBAS finds it imperative to empower local communities in the maintenance and safeguarding of water resources by fostering knowledge and active participation. In 2023, one initiative involved educating community leaders and members on water treatment which included disinfecting boreholes and sterilizing water using chlorine.

Responsible consumption: students' awareness

The Malawi University of Business and Applied Sciences plays a proactive role in promoting sustainable usage of water resources by embedding sustainable consumption in its pedagogy and practices. MUBAS aims to instill a mindset of environmental stewardship and responsible water usage through a multifaceted approach integrating [sustainable practices](#) into its infrastructure and daily operations. This includes various initiatives such as partnering with environmentalists to deliver sensitization programmes on water consciousness through workshops, seminars and awareness campaigns; usage of [water-efficient plumbing systems](#) and the utilization of rainwater harvesting techniques.



2 PUBLICATIONS



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Ensure sustainable consumption and production patterns

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^ MUBAS staff demonstrate disinfecting a borehole to community members

Maintenance of medical equipment

Pharmaceuticals and Medical equipment account for a big chunk of Malawi's imports. Amid an ailing economy with protracted Balance of Payments deficits, the Malawi University of Business and Applied Sciences has made a commitment to enhance capacity to repair and maintain medical equipment before it becomes obsolete. By partnering with [Oxygen Alliance](#), MUBAS commits its expertise through the secondment of its students in Biomedical Engineering to exercise their skills in maintaining sorted medical equipment. This initiative aims to promote a sustainable ecosystem by reducing the environmental impact of medical equipment scrap and saving on the momentous costs of procuring life-saving medical equipment.



^ The Vice-Chancellor makes a deal with Oxygen Alliance

13 CLIMATE ACTION



Take urgent action to combat climate change and its impacts

The Malawi University of Business and Applied Sciences (MUBAS) actively contributes to Sustainable Development Goal (SDG) 13: Climate Action through several initiatives:

Collaboration and innovation:

MUBAS engaged in climate-focused projects, such as the [Climate Connect initiative](#) through its Center for Water, Sanitation, Health, and Appropriate Technology Development (WASHTED). The initiative was aimed at discussing climate change and sustainable development issues in the country and across the globe. The program fostered collaboration with international universities to address climate change challenges. Though the initiative ran from October 2021 to February 2022, it saw several outputs in 2023 including climate pledges, educational materials, and research on environmental health and technology.

Climate change action through research

Through research and analysis, MUBAS academic staff, including Dr. Suzgo Kaunda, Dr. Kenneth Gondwe, and Dr. Geoffrey Chavula, have significantly contributed to Malawi's Second and Third National Communications under the [UNFCCC](#). Their work focuses on key areas such as greenhouse gas (GHG) inventories, mitigation strategies, and adaptation measures, enabling the government to meet climate action targets. MUBAS's efforts have also extended to the [Biennial Update Report](#), showcasing the university's commitment to supporting sustainable development through informed

The programs are also available at various centers across all three regions in Malawi



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“ Take urgent action to combat climate change and its impacts ”



Climate Connect



^ MUBAS staff demonstrate disinfecting a borehole to community members

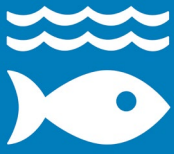
policymaking and climate reporting.

The Department of Mechanical Engineering at MUBAS has supported Malawi’s implementation of the Paris Agreement by conducting [research](#) to inform revisions to the country’s Nationally Determined Contribution (NDC). The department analyzed greenhouse gas (GHG) emissions in Malawi’s transport sector and

developed mitigation strategies. These findings were integrated into the updated NDC, contributing to sustainable development in the energy and transport sectors. This work, commissioned by the United Nations Development Programme (UNDP), highlights MUBAS’s critical role in addressing climate change through applied research and policy support.



14 LIFE BELOW WATER



Conserve and sustainably use the oceans, seas and marine resources for sustainable development

In 2023, the Malawi University of Business and Applied Sciences (MUBAS) actively contributed to Sustainable Development Goal (SDG) 14: Life Below Water, through impactful research and initiatives spearheaded by its WASHTED Centre. These efforts aimed to promote the sustainable use of aquatic resources while addressing critical challenges such as water pollution, plastic waste, and community water access. By combining innovative research, public engagement, and policy advocacy, MUBAS worked to protect marine and freshwater ecosystems for long-term sustainability. Key contributions include:

Waterway pollution mitigation

MUBAS tackled nutrient pollution, particularly focusing on phosphorus mismanagement, which causes harmful algal blooms and aquatic

ecosystem degradation. Research conducted by WASHTED identified sustainable phosphorus management strategies to enhance water quality and mitigate these environmental challenges. This work directly contributes to preserving aquatic life by ensuring healthier waterways that support biodiversity and ecosystems essential for local livelihoods. Through participation in symposia, workshops, and [events](#), WASHTED educated stakeholders on sustainable water use practices and the need to protect aquatic resources.

Plastic pollution mitigation

The WASHTED Centre participated in the African Plastic Pollution and Planetary Health [Research Network](#), addressing the adverse effects of plastic waste on aquatic environments. Research efforts included studying the ecological impact of plastic pollution and exploring innovative solutions to minimize its presence in water systems. These findings were shared



2
PUBLICATIONS



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Conserve and sustainably use the oceans, seas and marine resources for sustainable development”



Field team collecting waste for waste-characterisation

with stakeholders to support the development of policies and practices that combat plastic waste in Malawi and beyond, promoting cleaner and healthier aquatic environments.

Community-centric water initiatives

Through innovative projects such as [solar water disinfection](#), MUBAS

improved access to safe water in rural communities. These initiatives not only ensured clean drinking water but also reduced contamination risks in waterways, which can harm aquatic ecosystems. By empowering communities with sustainable water solutions, MUBAS contributed to healthier aquatic environments and fostered awareness of the importance of water conservation.



15 LIFE ON LAND



Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation, and halt biodiversity loss

Drive for environmental stewardship

Recognising the need for biodiversity conservation in the protection of various ecosystems, the Malawi University of Business and Applied Sciences takes a pluralistic approach to promote [Environmental Stewardship](#). This stems from a tranquil ambience of the MUBAS campus that resonates with environmental preservation and rejuvenation to creative and innovative solutions to combat the adverse effects of environmental degradation. MUBAS has an integrated landscaping strategy that promotes water-consciousness to minimize the degrading effects of surface run-off such as soil erosion to combat desertification of land. MUBAS also promotes tree-planting and conservation of natural vegetation to enhance the thriving of various life-forms and combat the loss of biodiversity.



The environmentally ambient landscape of MUBAS



4

PUBLICATIONS



“ Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation, and halt biodiversity loss ”



Climate change awareness

The Malawi University of Business and Applied Sciences also champions initiatives that wage war against the devastating consequences of Climate Change that have rocked the economy of Malawi in the past few years. Key to these initiatives is the awareness of climate change and behavior change communication for sustainable coping strategies in the wake of climate change. Through this drive, MUBAS conducted [climate change training](#) targeting policy and lawmakers as well as the wider community in matters of

global warming, causes and impacts of climate change, adaptation and mitigation methods to climate change. The training also emphasized the importance of climate financing and effective climate policies for wildlife preservation and the empowerment of vulnerable communities to preserve the environment for future generations.



16 PEACE, JUSTICE AND STRONG INSTITUTIONS



Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

Research

Our University holds an [annual conference](#) on high impactful research and innovations where various stakeholders including faculty, students, alumni and the general public participate. The research activities at MUBAS are geared towards mitigating societal problems through the

discovery of novel solutions through evidence-based research. Through interdisciplinary research in the fields of economics, commerce, law, governance and public policy, our University has embarked on a quest to actively contribute to activities that promote awareness and make justice systems more accessible to the public and responsive to community needs.



Launch of the inaugural Research and Innovation Week at MUBAS

Governance

Our University has inclusive governance mechanisms with faculty, staff, student, alumni and external stakeholder



33
PUBLICATIONS



“

Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

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2023 MUBAS Students Representative Council

representation at the highest level of governance to encourage innovation and alignment with broader societal needs. Our University also has a semi-autonomous Students' Union elected annually to represent student interests and build effective communication pathways with the administration and the community.

Academic programmes incorporating ethics, accountability and strong institutions

MUBAS has demonstrated commitment to Peace, Justice and Strong Institutions in various academic programmes under its School of Business and Economic Sciences. In the just-ended 2023 academic year, MUBAS had 615 students in the Bachelor of Accountancy programme, 84 students in the Bachelor of Procurement and Supply Chain Management programme and 276 students in the Bachelor of Commerce in Auditing programme.





Robing the Chancellor for the inaugural MUBAS graduation ceremony

Public lectures

Our university has cultivated a fertile ground allowing politicians, the general public and other commentators to deliver public lectures on various topics of national interest. Recently, the Minister of Finance and Economic Affairs in Malawi was hosted at MUBAS where he delivered [a public lecture](#) titled “Leveraging on Digitalisation to Boost Domestic Revenue”. The public lecture aimed at sensitizing university students, staff and the general public on modern applications of technology to enhance national revenue mobilization.



Audience during a Public Lecture by the Minister of Finance and Economic Affairs at MUBAS



17 PARTNERSHIPS FOR THE GOALS



Strengthen the means of implementation and revitalise the global partnership for sustainable development

Research partnerships

MUBAS engages in interdisciplinary research to address key sustainability challenges, particularly through cross-sectoral dialogue and international partnerships. The university actively participates in the Rural Energy Access through Social Enterprise and Decentralisation (EASE) Project, through its arm WASHTED, focusing on improving rural energy access in Malawi. Additionally, MUBAS contributes to global health and water discussions, as seen through its participation at the UNC Water and Health Conference in North Carolina, USA, where it presented findings from the SHARE Hygienic Family trial and a study on antimicrobial resistance in Malawi and Uganda.

MUBAS also collaborates with Zindi.africa to organize Africa-wide competitions in machine learning, fostering innovation and capacity

building across the continent. Its partnership with the University of Stirling in applied health research further strengthens community resilience and fosters societal development.



Tracy Morse and Kondwani Chidziwisano at the UNC Water and Health Conference in North Carolina, USA

Public and civic engagement

MUBAS is deeply committed to public and civic engagement, involving students in community-driven health and environmental advocacy.



3 PUBLICATIONS



“ Strengthen the means of implementation and revitalise the global partnership for sustainable development ”



MUBAS Public and Environmental Health Sciences students engage Mangochi's Mpondasi community, sharing essential WASH messages for post-cholera recovery

Initiatives like health awareness campaigns and environmental health visits allow students to work closely with local communities to address pressing public health issues and promote sustainable practices.

Furthermore, UNIPOD's collaborations with the EU and UNDP, including the Zantchito initiative, empower local entrepreneurs and start-ups by providing essential resources to foster economic growth and resilience in Malawi, directly supporting SDGs related to sustainable development and local innovation.

Inclusive and resilient urban growth through collaborations

MUBAS actively participates in a variety of regional, national, and international partnerships that contribute to sustainable urban and environmental development. This includes collaborations with global institutions, such as the United Nations and the University of Stirling, as well as local engagements like the UNIPOD Housing Project, which focuses on providing sustainable housing solutions. The university's operational approach integrates sustainable practices across research, teaching, and community engagement, underlining its commitment to advancing SDG 11 (Sustainable Cities and Communities) and promoting inclusive, resilient, and sustainable urban spaces.



About this report

This report highlights a fraction of the initiatives undertaken by the Malawi University of Business and Applied Sciences (MUBAS) to advance the UN Sustainable Development Goals (SDGs). Covering activities from the 2023 calendar year, the data was gathered between November 15 and December 15, 2023. Comprehensive details on MUBAS's contributions to the SDGs through research, teaching, collaborations, and operations are available on its [website](#).

The activities highlighted in this report have been identified and selected through comprehensive consultations with key stakeholders from all schools: School of Science and Technology, School of Built Environment, School of Business and Economic Sciences, School of Education, Communication and Media Studies, and School of Engineering; and all Centres: Water, Sanitation, Health and Technology (WASHTED), Management Development Centre (MDC), Institute of Continuing Education (ICE), Business Incubation Centre (BIC), Printing Press Centre (PPC), Engineering and Technical Services Centre (ETSC), and Transport Technology Transfer Centre (TTTC).



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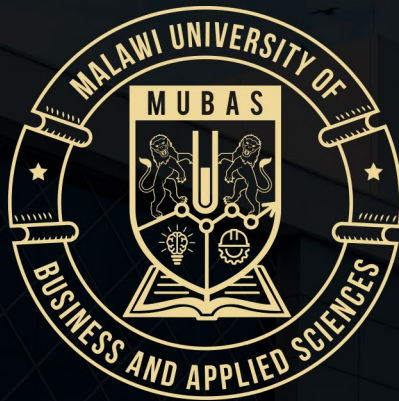
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