

MULUNGUSHI UNIVERSITY

Pursuing the frontiers of knowledge

**RESEARCH, PUBLICATIONS, CONSULTANCY
AND
QUALITY ASSURANCE**

2020 ANNUAL REPORT

DIRECTORATE OF RESEARCH AND POSTGRADUATE STUDIES

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FOREWORD



Prof. Hellicy Ng'ambi
Vice Chancellor

Mulungushi University (MU) endeavours to become the leading, innovative, relevant and reputable university of excellence in Africa and beyond. It has a Mission of providing “high quality academic programmes, research and consultancy services through stakeholder engagement”. The core value of the university is to produce quality graduates that are responsible, accountable, relevant, ethical (RARE) and innovative capable of competing at local and international markets to meet developmental needs of the country and beyond. In order to achieve its mission, the university endeavours to meet the core mandates of teaching, research and community engagement. The university recognizes the contribution of Research and Development (R&D) through research done by both

lecturers and students.

This Annual research report represents a significant mile stone towards the achievement of our mission statement and vision of being a leading, innovative, relevant and reputable university of Excellency. The Directorate of Research and Postgraduate Studies is a coordinating unit of university research, ensuring quality through the Office of the Quality Assurance Officer and Research Coordinator. The Quality Assurance Office ensures quality of all academic learning programmes and submits them to the Higher Education Authority (HEA) for accreditation. In the year 2020, Mulungushi University had submitted at total number of 85 learning programmes since 2018 when HEA commenced the accreditation process. Out of these, 46 learning degree programmes both undergraduate and postgraduate have been accredited by HEA, the university awaits feedback from HEA for the remainder of the programs.

In terms of research and publications for the year 2020, the university recorded a total number of 71 publications (52 journal articles and 19 Books and Book Chapters) by lecturers and some in co-authored with students in peer reviewed journals both in Africa and abroad. Further, to foster and encourage staff participation in research and generation of new knowledge for national and global development, MU management allocated K420,000.00 as an internal sponsorship for research by academic staff. Seven research proposals were awarded K50,000.00 and a K70,000.00 for a special grant for COVID 19 Research. This was a milestone in the history of the university.

To demonstrate the relevance and innovativeness of the university to the public, the university organised an inaugural conference and launched the Mulungushi University Multidisciplinary Journal. The conference was to commemorate 50 years of Zambia’s economic reforms since the Mulungushi economic reforms of 1968 which were held at the Rock of authority, where MU is sited. The theme was “The impact of Socio-economic Reforms on Sustainable development Quo Vadis?” held at Radisson Blu Hotel in Lusaka on 3rd and 4th December, 2020.

On behalf of MU management, I invite you to read and get insights about research activities taking place at MU in a RARE way in line with the university values.

Prof. Hellicy Ng'ambi
VICE CHANCELLOR

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Acronyms

DRPGS	Directorate of Research and Postgraduate Studies
HEA	Higher Education Authority
HIV	Human Immunodeficiency Virus
MU	Mulungushi University
MUMDJ	Mulungushi University Multidisciplinary Journal
QAP	Quality Assurance Policy
RARE	Responsible Accountable Relevant and Ethical
SANR	School of Agriculture and Natural Resources
SBS	School of Business Studies
SOE	School of Education
SMHS	School of Medicine and Health Sciences
SSET	School of Sciences, Engineering and Technology
SSS	School of Social Sciences

CHAPTER ONE

1.1 Introduction

Mulungushi University is one of the fast-growing public universities using a self-financing model of operating. As such, research is viewed as key component not only to provide needed solutions to the government and stakeholders as well as to act as a resource base for the University. Our contribution as a university to research is very cardinal as we pride ourselves to be modern in what we do and want to be a market leader in provision of quality research not only in Zambia but also globally. Based on the university mission of providing “High Quality Academic Programmes, Research and Consultancy Services Through Stakeholder Engagement, the university has a vision of being a leading, innovative, relevant and reputable university of Excellency in Africa and globally.

This report provides MU research activities, publications, consultancies and partnerships undertaken during the year 2020. Further, research teams have been created in the six respective schools namely: The School of Agriculture and Natural Resources (SANR), School of Business Studies (SBS), School of Education (SOE), School of Medicine and Health Sciences (SoMHS), School of Social Sciences (SSS); and the School Science, Engineering and Technology (SSET). These groups have been created with the view to encourage team work and mentorship between young academicians and experienced Senior Academicians.

1.2 Mulungushi University Research Grants

For the first time since its establishment, the University through the Directorate of Research and Postgraduate office provided 8 Research Grants of K50,000.00 each to seven (7) groups across different Schools and a special COVID-19 grant of K70,000.00 respectively amounting to a grand total of K420, 000.00.

The projects duration ranges between 6 months and 1 year. This allocation for research grants was done in an effort to encourage members of staff to engage in research proposal writing that will attract funding to academic staff and the University at large. The university, resolved to be having an annual budgetary Research allocation effective 2020. This is in the bid to ensure that members of academic staff remain engaged in innovative research that responds to the developmental needs of society. The University has also been encouraging its members of staff to be competing for externally funded Research projects.

Upon completion of these MU Research grants, it is envisaged that research articles will be published in peer reviewed journals while presentations will be organized internally by the Directorate of

Research and Postgraduate Studies for members for staff to communicate their research outputs to other academicians, public audience and other stakeholders.

1.3 Externally Funded Research Grants

As a university, we also had four Research Grants from institutions which are supporting research on how we can effectively communicate public health and epidemiological information related to COVID-19. In addition, the university is also engaged in developing a mobile application that will track contacts for those individuals who develop COVID-19. Besides, we have also realised that for a nation to develop, it requires to have health people. For example, a team led by Mr. James Mulenga and his colleagues are researching on how best the barriers that exist in people's access to health services in the wake of the established National Health Insurance Scheme can be resolved to that majority of the population especially the marginalised can access basic and specialised health services. Therefore, it's important that as a university we become relevant to this cause and it's important that we report here the school of Agriculture and Natural Resources participation in seeing how as a university and nation become resilient to climate changes in the energy and agriculture sector as this if not well addressed can be detrimental to this sector. Based on the aforementioned, it is evident that the private sector, multilateral organisations are seeing the importance of funding research that is relevant to the needs of society and as MU we will strive to continuously attract funding in this regard.

List of Externally Funded Research

1. Dr. Adrian Phiri, Communication of science and public health information, epidemiology and management of Covid-19 in Zambia: Lessons learnt, Funded by COVID-19 Africa Rapid Grant Fund
2. Associate Professor. Douglas Kunda, Development of a Mobile Application for Covid-19 Contact Tracking with Data Mining Techniques and Application of Predictive Analytics for Possible Covid-19 Pandemic Epicentres, funded by National Scientific Technology Council
3. Associate Professor Kavwanga Yambayamba, Increased Climate Resilience in Energy & Agriculture Systems and Entrepreneurship, funded by DNC
4. Mr. James Nilesh Mulenga, Addressing barriers and inequities towards achieving Universal Health Coverage using lessons from WHO AFRO region: The case of Zambia's National Health Insurance Scheme funded by WHO.

1.4 Summary of Research Publications, Book Chapters and Consultancies

Significant effort was made by academic staff to improve on research and publication of articles in international and local peer reviewed journals. Mulungushi University has established Research

Groups in Schools and has also launched the Mulungushi University Multidisciplinary Journal (MUMDJ).

1.4.1 Research Publications

During the 2020 academic year, the members of staff had made a total of fifty-two (52) publications in peer reviewed journals broken down as follows: Seven (7) under the School of Social Sciences, ten (10) under the School of Agriculture and Natural Resources, four (4) under the School of Business Studies, nine (9) under the School of Education, eight (8) under the School of Sciences, Engineering and Technology and fourteen (14) under the School of Medicine and Health Sciences as shown in (Table 1).

Table 1: List of publications produced by lecturers per school.

SN.	Department or School	Research Articles	Books and Book Chapters	Consultancies
1	School of Agriculture and Natural Resources	10	0	4
2	School of Business	04	1	1
3	School of Education	09	2	0
4	School of Medicine and Health Sciences	14	2	0
5	School of Science Engineering and Technology	08	2	0
6	School of Social Sciences	07	12	3
Total		52	19	8

1.4.2 Books and Book Chapters publications

A total of nineteen (19) Books and Book Chapters respectively were published of which seventeen (17) were book chapters awhile two (2) were books published by academic staff from across various disciplines. Some of these books where the chapters have been published (1) include: Trade Policy and Development Book Published by National Board of Trade Sweden; (2) Factors Responsible for Disturbing Peace in Peace Education, (3) Oyster Mushroom Cultivation, (4) Current Trends in Medicine and Medical Research, (5) Cyber Security of Industrial Control Systems in the Future Internet Environment" and Forces and (6) Forms of Doctoral Education in a Newly Configured and Constrained Global Context".

1.4.3 Consultancy

In the period under review, academic staff from the university managed to conduct nine (9) consultancies across various disciplines, which included: Nutrition, Water and Sanitation, Health and

Agriculture, Strategic environment assessment, training of Pact Zambia Staff in Data Analysis Using Stata software, training in disaster risk reduction, training in climate resilience in planning and disaster management and climate change in the road sector, and also the COVID-19 survey strategic environment. All these consultancies were carried for clients cutting across i.e., non-governmental organisation, quasi-government institution among others.

CHAPTER TWO

DIRECTORATE OF RESEARCH AND POSTGRADUATE STUDIES



In line with the vision of the university of being a leading, innovative, relevant and reputable university of excellence, the University aspires to contribute to the body of knowledge through the provision of academic programmes, consultancy and research through stakeholder engagement. Mulungushi University has competent and experienced researchers in the six schools namely; Agriculture and Natural Resources, Business Studies, Science Engineering and Technology, Education; Medicine and Health Sciences; and Social Sciences. Research and consultancy activities are coordinate by the Directorate of Research and Postgraduate Studies.

During the year 2020, the Directorate coordinated the inaugural Mulungushi university internally funded research grants. This was a highly competitive grant that received 28 proposal from the six schools competing for K420,000.00 grant. A total of seven applicants were successful with each research group being awarded K50,000.00. Additionally, a special grant offer of K70,000.00 was given to a Research team whose proposal was on the impact of COVID 19.

At regional level, the Directorate was awarded a USD 20,000.00 research grant to undertake a study on “Communication of Science and Public Health Information, Epidemiology and Management of COVID-19 in Zambia; Lessons learnt” by the South African, National Research Foundation. This is a (two) 2 year multidisciplinary research consisting of members of staff from various schools in the university.

In order to carryout effective research through quality assurance, the office of Quality Assurance and Research Coordinator have been established with two members of staff appointed respectively. The Directorate is currently working on revising the Mulungushi University Research Policy and development of the Quality Assurance policy. The two documents will be finalized in the first quarter of 2021.

The succeeding chapters will present research, publications, consultancy and partnerships activities from the six schools.

CHAPTER THREE

SCHOOL OF AGRICULTURE AND NATURAL RESOURCES



Ass. Prof. K. Yambayamba
Dean, School of Agriculture and
Natural Resources

The School Agriculture and Natural Resources has a highly competent team of academic and technical staff in the fields of agribusiness, crop science, animal sciences, environment and natural resources management and bee keeping. In academic the school offers both undergraduate and postgraduate programmes including; Agribusiness, Agriculture, Environmental studies at undergraduate level while offering at postgraduate, Agriculture Risk Management, Agribusiness and Climate change and sustainable development are being offered.

To demonstrate the competences in technical skills, SANR has a beekeeping project of producing honey, and being distributed country-wide in Shoprite outlets. Further, the school has partnerships with several government and private organizations in the country including international institutions is, undoubtedly, bringing a lot of value to the School and the University at large. The school is now working towards the establishment of the Mulungushi University Agribusiness Board to run the university farm. This will be expected expect to demonstrate modern agriculture productivity and contribution to national development. The university farm, will be a center of excellence in many areas of agricultural productivity, including research, teaching, apprenticeship, production, processing and agribusiness.

The School conducted research which was funded by the university as well as from external cooperating partners. In addition, half the lecturers had their articles published in peer reviewed journals which is a good indication.

3.1 Research Groups

The School of Agriculture and Social Sciences has a total of six (6) research groups spread across three departments. The Research Groups and Principal investigators (PIs) in the School are:

- i. Agricultural Bio-Systems Technology Research Group led by Mr. Mwape Malunga
- ii. Crop Production Systems led by Mr. Nchimunya Bbebe
- iii. Agribusiness lead by Mr. Edward Syampaku
- iv. Livestock Production System led by Dr. Moses T. Daura
- v. Natural and Environmental Systems led by Dr. Chansa Chomba
- vi. Hydrology and Earth Science led by Mr. Joseph T. Mwale

3.2 Research Articles

1. Thabo Ndlovu, Johannes Belle, Mitulo Silengo 2020. Participation of communal cattle farmers in drought risk reduction in Southern Zimbabwe *Jàmbá: Journal of Disaster Risk Studies*
2. Chomba, C., Msimuko, E., and Nyirenda, V. 2020. Nesting patterns of raptors; White backed vulture (*Gyps africanus*) and African fish eagle (*Haliaeetus vocifer*), in Lochinvar National Park on the Kafue flats, Zambia *International Research in Environment, Geography and Earth Science*.
3. Chomba, C., Simpamba, T. and Nyirenda, V. 2020. Has the Luangwa (Zambia) hippopotamus (*Hippopotamus amphibius*) population stabilized after reaching its asymptote? What are the management challenges? *International Research in Environment, Geography and Earth Science*.
4. Chomba, C., Nyirenda, V and Silengo, M. 2020. Selective use patterns of woody plant species by local communities in Mumbwa Game Management Area: A prerequisite for effective management of woodland resources and benefit sharing *International Research in Environment, Geography and Earth Science*.
5. Chomba, C., Senzota, R., Chabwela, H, and Nyirenda, V, 2020. Lion Hunting and Trophy Quality Records in Zambia for the Period 1967-2000: Will the Trends in Trophy Size Drop as Lion Population Declines? *International Research in Environment, Geography and Earth Science*.
6. Chomba, C. Chimbola, O and Nyirenda, V Game Ranching: A Sustainable Land Use Option and Economic Incentive for Biodiversity Conservation in Zambia. *International Research in Environment, Geography and Earth Science*.
7. Chomba, C., Simpamba, T. Kampamba, G. and Nyirenda V. 2020. Does the Luangwa Hippo Population Size and Density Distribution Vary between Upper and Lower Study Blocks? What Are the Management Implications of Such Distribution Pattern? *International Research in Environment, Geography and Earth Science*
8. Simfukwe, Paul 2020. The benefits of biochar on soil nutrient retention and maize productivity. Submitted to MU Journal accepted.
9. Siazemo, M.K. and Simfukwe, P. 2020. An Evaluation of the Efficacy of Botanical Pesticides for Fall Armyworm Control in Maize Production. *Open Access Library Journal*, 7, 1-12.
10. Chitalu, J. and Phiri, A., 2020. Assessment of the Implementation of Non-Corporal Punishment after the Abolishment of Corporal Punishment in Selected Secondary Schools of Kalulushi District-Zambia. *International Journal of Education and Research*. Vol. 8 No. 7, pg. 81-94

3.3 Partnerships and Linkages

The School has partnered with the following institutions in research and learning:

1. ZANACO- Graduation Programme and Internship
2. Shoprite
3. Department of Fisheries

3.4 Consultancies

1. Kavwanga Yambayamba: Increased Climate Resilience in Energy & Agriculture Systems and Entrepreneurship funded by SNV
2. Mitulo Silengo - Consultant and Adrian Phiri – Co consultant: Roll out disaster risk reduction training in Kalomo district of Southern Province of Zambia
3. Adrian Phiri – Consultant: Zambia Environmental Agency (ZEMA) Public Hearing of Strategic Environmental Assessment (SAE) for Proposed Jiangxi Economic Cooperation Zone in Chibombo District on 7th February, 2020
4. Adrian Phiri - Expert Trainer: Climate Resilient Infrastructure Codes for the Transport Sector in Zambia Project - Training in climate resilience in planning and disaster management and climate change in the road sector for Roads Development Agency (RDA).

3.5 Peer Reviewed Conference Papers/Presentations

1. Associate Professor Kavwanga Yambayamba - Importance of Nutrition in Human Brain Development and its Nexus with Socio-Economic Development. *Impact of socio-economic reforms on sustainable development Quo Vadis* conference held from 3 – 4th December, 2020 in Lusaka at Radisson Blu Hotel.
2. Edward M. Syampaku and Josephine Longwani - Relationship between crop diversification and productivity: prospects for assessing direction of crop management in the small-holder farm sector in Zambia's three agroecological regions. *Impact of socio-economic reforms on sustainable development Quo Vadis* conference held from 3 – 4th December, 2020 in Lusaka at Radisson Blu Hotel.
3. Malata Chanda and Dr. Emanuel Musaba - Economic Efficiency of Small-Scale Maize Farming In Kasempa District. *Impact of socio-economic reforms on sustainable development Quo Vadis* conference held from 3 – 4th December, 2020 in Lusaka at Radisson Blu Hotel.
4. Paul Simfukwe - The benefits of biochar on soil nutrient retention and maize productivity. *Impact of socio-economic reforms on sustainable development Quo Vadis* conference held from 3 – 4th December, 2020 in Lusaka at Radisson Blu Hotel.

5. Edward Syampako - Relationship between crop diversification and productivity: prospects for assessing direction of crop management in the small-holder farm sector in Zambia's three agroecological regions. *Impact of socio-economic reforms on sustainable development Quo Vadis* conference held from 3 – 4th December, 2020 in Lusaka at Radisson Blu Hotel.

3.6 Research Grants /Funded Collaborative Projects

The following research projects have been funded in the school and currently on going:

1. Adrian Phiri, James Mulenga, Christopher Mushabati, Clement Mwaanga, Givers Chilinga, Bennie Hamunzala 2020. - Communication of science and public health information, epidemiology and management of Covid-19 in Zambia: Lessons learnt; funded by National Research Foundation of Republic of South Africa. Covid-19 Africa Rapid Grant Fund.
2. Kavwanga Yambayamba – Increased Climate Resilience in Energy and Agriculture Systems and Entrepreneurship funded by SNV.
3. Joseph.T. Mwale 2020. Co-evolutionary Multi-Objective Optimization of the Water-Sensitive Urban Design of Cities: *Funded by Mulungushi University*

3.7 Future Research Areas:

1. Prof. Kavanga Yambayamba - Enhanced Crop and Livestock Productivity to address Hunger and Poverty in Zambia
2. Mr. Idan Lichilo - Value Addition to Foods in Zambia
3. Dr. Paul Simfukwe - Improving Soil Fertility and reducing Greenhouse gas emissions using Biochar in Conservation Agriculture
4. Dr. Chansa Chomba - Fisheries (Aquaculture and Captive Fisheries research project at Mulungushi University
5. Dr. Chansa Chomba - Game Ranching project at the new Mulungushi University Farm
6. Dr. Adrian Phiri – Prospects of Indigenous Knowledge in climate change mitigation and adaptation.

CHAPTER FOUR

SCHOOL OF BUSINESS STUDIES



The School of Business Studies is one of the pioneer institutions in the training of Business managers relevant to prevailing socioeconomic times. SBS is a leading institution in the teaching and research in Commerce; Entrepreneurship; Labour and Employment Relations programmes; and Communication programmes in Zambia. These are undertaken in the two departments namely, Business Studies and Law, and Labour and Human Resource Management. The school endeavors to produce versatile graduates with an acumen to perform multifarious and other specialized functions as Economists, Lawyers, Accountants, Human Resources and Labour Relations Officers, Marketers, Entrepreneurs and Managers who not only seek for employment but would be able to create their own employment and employ others. In addition, the school engages in partnerships and collaborations with both private and public sectors in consultancy and capacity building training. These include, University of South Africa, Indo - Zambia Ltd, ACCA, and ZANACO.

In the year 2020, the School of Business Studies was awarded a Mulungushi University Research Grant. Efforts are also being made to enhance research in the school through formation of research groups with a view to enhance consultancy in the School.

4.1 Research Groups

The School of Business Studies has a total of six (6) research groups spread between the two departments.

The following Research groups and Principal Investigators have been created:

- i. Business Management lead by Mr. Clement Mwaanga
- ii. Communication and Public Administration led by Dr. Patrick Kalyabanyama
- iii. Accounting and Finance lead by Dr. Nsama Musawa
- iv. Socio-Legal Studies and Justice Systems led by Mrs. Kamo Sinfukwe
- v. Labour, FDI and organizational behavior led by Mr. Chilayi Mayondi
- vi. Human Resource Management, Wellness and Career Development led by Dr. Mwansa Kamukwamba

4.2 Research Articles

1. Musawa, N., Kapena, S. and Shikaputo, C., 2020. A better stock pricing model: A systematic literature review. *Journal of Economic and Financial Sciences*, 13(1), pp.1-6.
2. Kasonde, C, Manchishi, P & Kabeta, R: Examining Instructional Leadership Practices in Zambian Public Universities- A Case of Jeannes University. IJSR Volume 9 Issue 7, July, 2020.
3. Kamukwamba, M., 2020. Developing Integrated Collective Bargaining System in a Bi National Organization: The Case of the Tanzania Zambia Railway Authority (TAZARA). *Chinese Business Review*, 19(4), pp.120-130.
4. The dilemma of investment in a Bi-national organisation: A case study of Tanzania-Zambia Railways Authority (TAZARA) *China-USA Business Review* ISSN: 1537-1514, March 2020

4.3 Books and Book Chapters

1. Ng'ambi, H.C. 2020. Managing Diversity and Inclusion. Chapter in PJ Smit, T Botha & MJ Vrba. *Management Principles: A contemporary Edition for Africa*. Seventh Edition, Juta & Co, Cape Town, South Africa.

4.4 Consultancies

1. Clement Mwaanga - Co – Consultant: UNIDO-AFDB COVID 19 Survey project.
2. Kaonde. C. Deressa. C. and Mayondi .C. 2020. Training

4.5 Peer Reviewed Conference Papers/Presentations

1. Drayton Muchochoma and Dr. Nsama Musawa – Impact of Basel III on Zambian Economy. *Impact of socio-economic reforms on sustainable development Quo Vadis* conference held from 3 – 4th December, 2020 in Lusaka at Radisson Blu Hotel
2. Nsama Musawa - The Effect of Monetary Policy Changes On Loan Supply By Commercial Banks To Various Economic Sectors in Zambia. *Impact of socio-economic reforms on sustainable development Quo Vadis* conference held from 3 – 4th December, 2020 in Lusaka at Radisson Blu Hotel.

4.6 Research Grants and Funded Collaborative Researches

In the year 2020, the School of Business Studies participated in the Mulungushi university grant like other schools in the university.

1. Choolwe Mwiiya - Effects of RARE Values on Employee Commitment and Organizational Performance. Currently doing data Analysis.
2. Clement Mwaanga combined - Gendered Impacts of Corona Virus on Small and Medium Enterprises and COVID 19 Pandemic Impact and its Implication on SME operations in Hospitality (K70 000 MU) at Report writing stage.

Efforts are being made to enhance research in the school through formation of research group in which all staff will be encouraged to participate in research and consultancy.

4.7 Future Research

1. Clement Mwaanga – Research on Capacity building training in Business development services for MSMEs in Zambia
2. Moulen Siame and Stephen Chibangula - analytical and empirical studies of local and global entrepreneurship networks which are often ethnic in nature; the interaction between production networks connecting to world regional centers; studies on race, ethnicity, and business ownership.
3. Chilayi Mayondi- Impact of COVID 19 in the hospitality Industry in Kabwe
4. Clement Kasonde – The Legal analysis of the application of individual employment law in Zambia. The case of Willard Matoka v Chambeshi Water and Sewerage Company
5. Linus Chisanga – The Impact of strategic Human Resource Management on the employment relationship in Zambia.

CHAPTER FIVE

SCHOOL OF EDUCATION



Dr. Gift Kaira
Dean, School of Education

The School of Education aspires to produce teachers who are relevant, ethical, responsible and accountable to the growth education in Zambia and globally. It is the dream of the school to produce teachers who will be socially responsive, skilled in effective communication and excel in their various fields of education.

The school further, offers a postgraduate diploma in Teaching Methodology, to sharpen skills for teaching and facilitation for non-trained teaching professionals who would want to engage in teaching careers.

The school had most of its members engage in internally (MU) funded research. The school is making efforts to explore new developments since the coming in of Covid-19 which affected the institutions of learning. The focus is on looking at providing alternatives in the new normal by engaging in consultancy on online teaching methodologies. The School has in the recent past seen an upward trend in members of staff who are publishing in peer reviewed journals. This can be attributed to the introduction research groups.

5.1 Research Groups

The School of Education has a total of three (3) research groups spread across three departments.

Below is a list of research groups in the SoE and accompanying Principal Investigators:

- i. Education management and administration lead by Dr. Racheal Kabeta.
- ii. Humanities and social science in education lead by Dr. Gift Kaira
- iii. Social Sciences lead by Dr. Friday Mufuzi

5.2 Research Articles

1. Sinkala L, Kaira, G and Simwinga J. *“His Car Refused to Cry”*: An Analysis of L1 Interference Lexical Errors in *Zambian Grade 12 ESL Learners’ Written Discourse* in International Journal of Humanities Social Sciences and Education (IJHSSE) Volume 7, Issue 4, April 2020, PP 73-94.
2. Banda, M. & Mwansa, B. M.: Individual Factors in the Development of Negative Mathematics Self-Concept among Girls at a rural School in Central Province, Zambia. *European Journal of Education Studies*. Volume 7, Issue 7, 2020. Pages 1-15.

3. Banda, M., Hamaundu, M. & Mwansa, B.M.: Views of Teachers towards ICT integration in History. *International Journal of Humanities and Social Sciences and Education*. Volume 7, Issue 6, 2020. Pages 116-122.
4. Mwansa Beatrice Mumbi: Understanding *Humanae Vitae* in its Context and theological and Philosophical Underpinnings through the Mind of a Lay Person. *International Journal of Multidisciplinary Research and Development* Vol. 7 Issue 8 (2020) Pages 15-18.
5. Kasonde, C, Manchishi, P & Kabeta, R: Examining Instructional Leadership Practices in Zambian Public Universities- A Case of Jeannes University. *IJSR* Volume 9 Issue 7, July, 2020.
6. Ngoma, C, Sakakombe, L & Kabeta, R: Influence of Head teacher's Leadership Style on School Climate- Perspectives of Head teachers and teachers (Paper accepted for publication for the September Issue, *IJSR*, 2020)
7. Simui, F, Muzata, K.K, Sakakombe, L and Mtonga," Disablers to Academic Success of learners with Special Education in selected Higher Institutions of Learning" in *Zambia Journal of Educational Management, Administration and Leadership (ZJEMAL)* Volume 1 No. 1 Sept 2020.
8. Simui, F, Mpolomoka, D, Sakakombe, L, and Mhango, L. "Exploring presence of interactivity in Distance Education Instructional Materials using the Community of Inquiry Model at four Universities in Zambia in Zambia" *Journal of Educational Management, Administration and Leadership (ZJEMAL)* Volume 1 No. 1 Sept 2020.
9. Chola, D.K (2020) Assessment of Service-Learning in the Teaching of Civic Education in Selected Secondary Schools in Lusaka Province, Zambia in *International Journal of Education Humanities and Social Sciences* <http://ijehss.com/> May- June 2020, vol 3, issue 3 ISSN 2582-0745.

5.3 Books and Book Chapters

1. Charity Meki Kombe: Capacity Building in the ERA of globalization in the book titled "Forces and Forms of Doctoral Education in a Newly Configured and Constrained Global Context"
2. Mtongo D.N., Sakakombe L and Banda L. Factors Responsible for Disturbing Peace in Peace Education. Editors: Dr. Lalit Lalitav Mohakud, Assistant Professor, Department of Education, Jadavpur University, Kolkata, India

5.4 Peer Reviewed Conference Papers/Presentations

1. Friday Mufuzi - The Livingstone Museum Archaeological Researches and Their Contribution To The Understanding Of Zambian History, 1934 – 2006. *Impact of socio-economic reforms on sustainable development Quo Vadis* conference held from 3 – 4th December, 2020 in Lusaka at Radisson Blu Hotel.

2. Kombe Charity, Dingase E. Mtonga, Charity and Estella Mwendalubi, Mulenda Chali - Freshers' experiences of online learning at a public university in Zambia: Benefits, challenges and Suggestions for Improvement. *Impact of socio-economic reforms on sustainable development Quo Vadis* conference held from 3 – 4th December, 2020 in Lusaka at Radisson Blu Hotel
3. Ireen Moonga and Audrey Muyuni - An Evaluation of Comprehensive Sexuality Education Since Independence. *Impact of socio-economic reforms on sustainable development Quo Vadis* conference held from 3 – 4th December, 2020 in Lusaka at Radisson Blu Hotel
4. Mwaka Siluonde - Technauriture and Cultural Agency in 21st Century Zambia. *Impact of socio-economic reforms on sustainable development Quo Vadis* conference held from 3 – 4th December, 2020 in Lusaka at Radisson Blu Hotel
5. Audrey P. Muyuni, Ireen Moonga and Daniel. K. Chola - A Historical Transformation of Socio-Economic Life Of Small Scale Traders Of Mulungushi Community From 1972 To 2020. *Impact of socio-economic reforms on sustainable development Quo Vadis* conference held from 3 – 4th December, 2020 in Lusaka at Radisson Blu Hotel

5.5 Research Grants and Funded Collaborative Projects

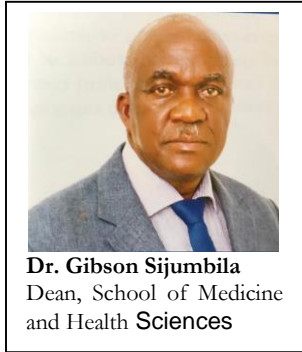
1. Givers Chilinga - Teacher and pupil knowledge and perception of Covid-19 and its effects on the teaching and learning process. Currently doing data analysis funded by Mulungushi University.

5.6 Future Research

1. Dr. Mwaka Siluonde -Computer studies in Zambian Schools: Advances and Bottlenecks in policy implementation.
2. Dr. Gift Kaira - Public Private Partnerships and the financing of Higher Education in Zambia.
3. Dr. Meki Kombe - Tracer study of University Open and Distance learning graduates and their Employers' Perspectives of the quality of their degrees.

CHAPTER SIX

SCHOOL OF MEDICINE AND HEALTH SCIENCES



The Mulungushi University School of Medicine and Health Sciences is based in Zambia's tourist city of Livingstone in Southern Province. It is conveniently located within the premises of Livingstone Central Hospital. The school offers the Bachelor of Medicine and Bachelor of Surgery Degree (MBCHB) at the Livingstone Campus while Bachelor in Science in Pharmacy and Bachelor of Science in Nursing in Kabwe at the Town Campus respectively.

The school has a team of professional and experienced medical researchers in the field of Ethno – Pharmacology research and Hypertension, HIV/AIDS, Nutrition, Diabetes & Dyslipidemia (HAND) research.

The SoMHS had about seven of its members of academic staff engaging in research related activities. In the year 2020, one member of staff published one book chapter and a book in peer reviewed journals. In addition, one member of staff had a book chapter published.

The school was awarded the Mulungushi University 2020 two research grants due to outstanding proposal.

6.1 Research Groups

The School of Medicine and Health Sciences has two (2) research groups spread between the two departments.

- i. Ethno-Pharmacology Research Group (EPRG) lead by Ms. Tumelo Muyenga Akapelwa
- ii. Hypertension, HIV/AIDS, Nutrition, Diabetes & Dyslipidemia (HAND) led by Dr. Sepiso Masenga

6.2 Research Articles

1. Ezeala, Christian Chinyere, Mercy Okwudili Ezeala, Vaseem Shaikh, Tumelo M. Akapelwa, Sam Beza Phiri, Kingsley Kamvuma, John A. Mulemena, Festus Mushabati, Warren Chanda, and Gibson Sijumbila. "Medical School Admissions: A Review of Global Practices, Predictive Validity, and Practice Points for Africa." *Medical Journal of Zambia* 47, no. 3 (2020): 241-249.
2. Ezeala, Christian Chinyere. Integration of computer-simulated practical exercises into undergraduate medical pharmacology education at Mulungushi University, Zambia. *J Educ Eval Health Prof.* 2020; 17: 8.

3. Masenga, S.K. and Sijumbila, G., 2020. Hypertensive urgency in low-and middle-income countries. *American Journal of Hypertension*. 2020 Aug 19: hpa132. Doi: 10.1093/ajh/hpaa132. Online ahead of print. PMID: 32812019.
4. Hamooya, B.M., Masenga, S.K. and Halwiindi, H., 2020. Predictors of diarrhea episodes and treatment-seeking behavior in under-five children: a longitudinal study from rural communities in Zambia. *The Pan African Medical Journal*, Vol.36. No.115
5. Masenga SK, Elijovich F, Hamooya BM, Nzala S, Kwenda G, Heimbürger DC, Mutale W, Munsaka SM, Zhao S, Koethe JR, Kirabo A. Elevated Eosinophils as a Feature of Inflammation Associated with Hypertension in Virally Suppressed People Living With HIV. *J Am Heart Assoc*. 2020 Feb 18;9(4): e011450. Doi: 10.1161/JAHA.118.011450. Epub 2020 Feb 17. PMID: 32064996 Free PMC article.
6. Masenga SK, Elijovich F, Koethe JR, Hamooya BM, Heimbürger DC, Munsaka SM, Laffer CL, Kirabo A. Hypertension and Metabolic Syndrome in Persons with HIV. *Curr Hypertens Rep*. 2020 Sep 3;22(10):78. Doi: 10.1007/s11906-020-01089-3. PMID: 32880756 Free PMC article. Review.
7. Samuel Bolaji Mesole, Okpanachi Omachonu Alfred, Uthman Ademola Yusuf, Lwiindi Lukubi, Dailesi Ndhlovu, "Apoptotic Inducement of Neuronal Cells by Aluminium Chloride and the Neuroprotective Effect of Eugenol in Wistar Rats", *Oxidative Medicine and Cellular Longevity*, vol. 2020, Article.ID 8425643, 7 pages, 2020. <https://doi.org/10.1155/2020/8425643>
8. Joseph, T.P., Zhao, Q., Chanda, W., Kanwal, S., Feng, Y., Zhong, M.T. and Huang, M., 2020. Expression and in vitro anticancer activity of Lp16-PSP, a member of the YjgF/YER057c/UK114 protein family from the mushroom *Lentinula edodes* C91-3. *bioRxiv*.
9. Masenga, SK., Pilic, L., Hamooya, BM., Nzala, S., Kwenda, G., Heimbürger, DC., Mutale, W., Koethe, JR., Kirabo, A., Munsaka, SM., 2020. Hypertension and the effect of dietary salt on inflammation: An interventional study. *Research Square*. Preprint. DOI:10.21203/rs.3.rs-38872/v1.
10. Masenga SK, Kirabo A, Hamooya MB, Nzala S, Kwenda G, Heimbürger DC, Mutale W, Koethe JR, Pilic L, Munsaka SM 2020. Salt-sensitivity is associated with hypertension, inflammation and non-dipping blood pressure in HIV. Poster number PEA0068.23rd International AIDS Conference (AIDS 2020: Virtual), 6-10 July 2020. <https://iascslide.ctimeetingtech.com/aids2020/attendee/person/1148>.

11. Hamooya BM, Masenga SK, Halwiindi H. Predictors of diarrhea episodes and treatment-seeking behavior in under-five children: a longitudinal study from rural communities in Zambia. *Pan Afr Med J.* 2020 Jun 22;36:115. Doi: 10.11604/pamj.2020.36.115.20180. eCollection 2020. PMID: 32821326 Free PMC article.
12. Masenga SK, Hamooya BM, Nzala S, Kwenda G, Heimbürger DC, Mutale W, Koethe JR, Kirabo A, Munsaka SM 2019. Immune cell activation as a risk factor for hypertension in people living with HIV in Sub-Saharan Africa using the recent American Heart Association and American College of Cardiology guidelines. 21st International Workshop on Adverse Drug Reactions and Comorbidities in HIV held 5-6 November, 2019 in Basel, Switzerland. *Antiviral Therapy* 2019; 24 Suppl 1: A68 <https://www.intmedpress.com/?pid=31>
13. Masenga SK, Hamooya BM, Nzala S, Kwenda G, Heimbürger DC, Mutale W, Koethe JR, Kirabo A, Munsaka SM 2019. Immune cell activation as a risk factor for hypertension in people living with HIV in Sub-Saharan Africa using the recent American Heart Association and American College of Cardiology guidelines. 17th European AIDS Conference held 6-9 November, 2019 in Basel, Switzerland. <http://resourcelibrary.eacs.cyim.com/mediatheque/media.aspx?mediaId=78495&channel=28172>
14. Masenga SK. <https://discover.vumc.org/2020/09/a-clue-to-increased-hypertension-risk-in-people-living-with-hiv/>.

6.3 Books and Book Chapters

1. Ezeala, Christian Chinyere: A handbook of computer simulations for undergraduate medical pharmacology Kindle 2020-08-07 | book ASIN: ASIN: B08FDXYPYG
2. Ezeala, Christian Chinyere: Published a book chapter Current Trends in Medicine and Medical Research Vol. 5

6.4 Peer Reviewed Conference Papers/Presentations

1. Dr. Sepisos Masenga, Kirabo A, Hamooya MB, Nzala S, Kwenda G, Heimbürger DC, Mutale W, Koethe JR, Pilic L, Munsaka SM 2020. Salt-sensitivity is associated with hypertension, inflammation and non-dipping blood pressure in HIV. Poster number PEA0068. 23rd International AIDS Conference (AIDS 2020: Virtual), 6-10 July 2020. <https://iascslide.ctimeetingtech.com/aids2020/attendee/person/1148>.
2. Dr Sepiso Masenga - <https://discover.vumc.org/2020/09/a-clue-to-increased-hypertension-risk-in-people-living-with-hiv/>

6.5 Research Grants and Funded Collaborative Projects

1. Dr. Sepiso Masenga - Vanderbilt-Emory-Cornell-Duke (VECD) Global Health Fellows Consortium award for research funded by Global Health Fellows Consortium
2. Dr. Sepiso Masenga - Screening for peripheral artery disease and salt-sensitive hypertension among persons with HIV in primary care: The SPADiSH study. Currently collecting data, funded by Mulungushi University
3. Ms. Tumelo Muyenga - Investigation of the effects of fractionated extracts and isolated pure compounds of *Kigelia Africana* fruit on Alloxan -Induced diabetic rat model. Currently doing data collection, funded by Mulungushi University

6.6 Future Research

1. Dr. Gibson Sijumbila - Determination of levels of organophosphate insecticides in vegetables sold in Zambian Markets
2. Dr. Sepiso Masenga - Link between organophosphate insecticide exposure and development of diabetes mellitus
3. Dr. Festus Mushabati - Determination of the efficacy of commonly used traditional herbal medicines in animal models

CHAPTER SEVEN

SCHOOL OF SCIENCE, ENGINEERING AND TECHNOLOGY



Ass. Prof. Douglas Kunda
Dean, School of Science
Engineering and Technology

The school of Science engineering and Technology (SSET) has hard working team of experiences and qualified experts in the areas of Science, Engineering Computing, Information and Communication Technology (ICT). SSET offers both undergraduate and postgraduate programmes in science-oriented fields. The Department of ICT endeavors to be leading institutions in doing research and consultancy in Artificial Intelligence (AI). While the Engineering department has expertise in Civil, Mechanical, Electrical and Agriculture engineering and innovations.

SSET is currently collaborating with the Roads Development Agency (RDA) with the view to collaborate in research and development in the road sector.

The school had not conducted any consultancy during the period under review. However, with regard to articles, book chapter and book publications the school didn't fare well too with few members having their papers published in referred journals. The school is currently participating in the Mulungushi University 2020 research award. Ass. Prof. Douglas Kunda scoped an externally funded for a research project titled "Development of a Mobile Application for Covid-19 Contact Tracking with Data Mining Techniques and Application of Predictive Analytics for Possible Covid-19 Pandemic Epicentres.

7.1 Research Groups

The School of Sciences Engineering and Technology has a total of nine (9) research groups spread across four departments.

The following research groups and PI are established in the school:

- i. Data Mining and Software Engineering - Prof. Douglas Kunda
- ii. Geomatic and Civil Engineering - Eng. Maj. Bennie Haamunzala
- iii. Electronics, power/energy, and control engineering - Dr. Selemani Ngwira
- iv. Mechanical Engineering - Dr. Agrippa Hamweendo
- v. Mathematics and Statistics - Dr. Christian Kasumo
- vi. Chemistry - Ms. Abigail Mboози
- vii. Physics - Dr. Davy Manyika
- viii. Microbiology and Biotechnology- Dr. Arunachalam Kaliranjana

7.2 Research Articles

1. Kasumo, C. (2020). The Adomian decomposition method solution of the inviscid Burgers equation. *Journal of Mathematical and Computational Science*, **10**(5), 1834-1850.
2. Kasumo, C. (2020). Application of the Adomian Decomposition Method to the solution of the linear nonhomogeneous one-dimensional wave equation. *Journal of Applied Mathematics and Computation*, *4*(2), 34-42. <http://dx.doi.org/10.26855/jamc.2020.06.004>.
3. Kasumo, C. (2020), On the approximate solutions of linear Volterra integral equations of the first kind, *Applies Mathematical Sciences*, *14*(3), 141-153.
4. Kasumo, C. (2020), Dividend maximization under a set ruin probability target in the presence of proportional and excess-of-loss reinsurance. *Applications and Applied Mathematics*, *15*(1), pp. 13-37.
5. George M. Mukupa and Elias R. Offen (2020) "The Semimartingale Equilibrium Risk Premium for A Risk Seeking Investor" *Journal of Mathematics Research (JMR)*, Vol.12; No. 4, pp. 13-24.
6. Aaron Zimba, (2020). "Future Generations Computer Systems" journal under Elsevier. The title of the article is "Modelling and detection of the multi-stages of Advanced Persistent Threats attacks based on semi-supervised learning and complex networks characteristics" and it can be accessed via the link: DOI: 10.1016/j.future.2020.01.032
7. K.A. Nkonde et al. (2020), The Future of Medical Physics: A Case Study of Zambia, *Medical Physics International Journal*, vol.8, No.2, pp. 61-67.
8. Gyamerah, S. A. and Moyo, E. (2020). "Long-Term Exchange Rate Probability Density Forecasting Using Gaussian Kernel and Quantile Random Forest," in *Hindawi, Complexity*, vol. 2020, Article ID 1972962, 11 pages. <https://doi.org/10.1155/2020/1972962>.

7.3 Books and Book Chapters

1. Kalirajan A. and Kapyelata A. M. (2020), *Oyster Mushroom Cultivation*, (Published Book).
2. Arron Zimba and Douglas Kunda Published a book chapter with Prof. D. Kunda under the refereed book "Cyber Security of Industrial Control Systems in the Future Internet Environment" in the first quarter of 2020. The title of the chapter is "Modelling of ICS/SCADA Crypto-Viral Attacks in Cloud-Enabled Environments" and it can be accessed via the link: DOI: 10.4018/978-1-7998-2910-2.ch006

7.4 Peer Reviewed Conference Papers/Presentations

1. Dr. A Kalirajan – Enhancing Bioconversion Efficiency of the Earthworm *Eudrilus Eugeniae* (Kingberg) by fortifying the filter and Vermibed using an organic Nutrient. *Impact of socio-economic reforms on sustainable development Quo Vadis* conference held from 3 – 4th December, 2020 in Lusaka at Radisson Blu Hotel.

7.5 Research Grants and Funded Collaborative

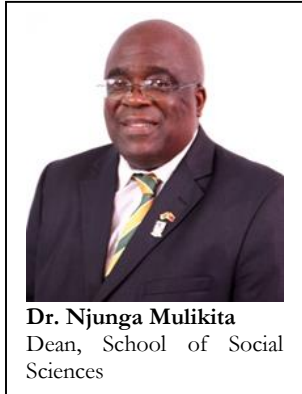
1. Associate Professor Douglas Kunda - Development of a Mobile Application for Covid-19 Contact Tracking with Data Mining Techniques and Application of Predictive Analytics for Possible Covid-19 Pandemic Epicentres. National Scientific Technology Council.
2. Dr. Aaron Zimba - Modelling and Detection of Financial Fraud Based on Complex Networks: The Case of a Pyramid and Ponzi Schemes. Currently doing data collection.

7.6 Future Research

1. Prof. Douglas Kunda - Integration of ICTs in sustainable development
2. Dr. Aaron Zimba - Developing mobile based systems for development e.g Portal for Rural Zambia (without Internet connection); and Entrepreneurial Skills training (e.g e-commerce/e-cooperative).
3. George Mukupa - Identification and Analysis of Natural Products (Medicines from natural plants)
4. Dr. A. Kalirajani - Mechanisms of Biocontrol for invasive species e.g army worms
5. Dr. Manyika - Investigate why girls do not take up science based programmes

CHAPTER EIGHT

SCHOOL OF SOCIAL SCIENCES



The School of Social Sciences (SSS) offers programmes at both undergraduate and postgraduate level. The economics and public administration are flagship programmes that equip students with knowledge and skills to effectively contribute to social, institutional and economic development of our Zambia and globally. The School of Social Sciences has three departments namely; Department of Economics, Department of Social Development Studies and Department of Public Administration and International Relations.

In research and consultancy, the school has a team of experienced and competent social scientists undertaking consultancy in, demography, development studies, economics, political and administrative science and social work. In addition, the school in particular the department of economics has entered into partnership with SIDA on a programme in Economic Development Research and Training International Relations and Development. The vision of the school is to become a leading research hub for socio-economic development of Zambia.

Members of staff in the school of Social Sciences were engaged in conducting research in 2020 which was internally funded. Members of Staff in the departments of Economics and Public Administration and Political Studies published in referred journals and book chapters which was a great achievement as this helps document their contributions to the wider subject areas in which they specialized in. As such, other departments like that of social development studies should strive to emulate other departments.

In spite of all the success scored, only few among the academic staff within the school were actively engaged in consultancy throughout the year. Though it is a well-known fact that most members core function is teaching, engaging in consultancy is another key aspect that should be emphasized so as to broaden their practical expertise, hence the introduction of research groups.

8.1 Research Groups

The School of Social Sciences has nine (9) research groups spread across four departments.

Below is the list of the research groups which have been established in the school with accompanying Principal Investigators:

- i. Public Sector, Trade and Development economics led by Mr. Mulenga C. Mulenga

- ii. Environment and natural resources, small and medium enterprises, labour markets led by Mr. Yardonos Gebremeskel
- iii. Health economics, demography and population studies – Mr. Bwalya Bupe Bwalya
- iv. Development Studies led by Mr. Nixon Chisonga
- v. Psychology led by Mr. George Phiri
- vi. Social Anthropology and Social Work led by Mr. Jacob.D. Sichone
- vii. New Public Management, Local Government Administration and Public Policy led by Dr. Musole Siachisa
- viii. International Peace and Security and Crisis Management led Mr. Ancietos Mwansa
- ix. Democracy Human Rights and Electoral Governance led Dr. M.N. Mulikita

8.2 Research Articles

1. Agarwal, P. and Chonzi, M., 2020. Impact of COVID-19 on International Trade: Lessons for African LDCs. *Available at SSRN 3693901*.
2. Mataka, B., and Nkandu M.O. 2020. The effects of Voter Apathy on the Growth of Electoral Democracy in Zambia with Special Focus on Kabwe Central Constituency. *International Journal of Research Publications and Reviews*. Vol.1 No. 2 pg17-23.
3. Oliver M. N., and Mataka, B. 2020. A review of Zambia's Economic Diplomacy with a Special Focus on Zambia-China Relations 2010 - 2018. *International Journal of Research Publications and Reviews*. Vol.1 No. 3 pg1 – 7.
4. Mataka, B., and Nguluwe P. A. 2020. The Impact of Community Participation on Community Development in Zambia: Case Study of Nsanjika Area of Nsingo Ward in Luangeni Constituency of the Eastern Province. *Asian Journal of Social Science and Management Technology*. Vol.2 No. 3 pg30 – 43.
5. Mataka, B., and Mungulube, C. 2020. Exploring the Implementation of E-governance at the Road Transport and Safety Agency: A Case Study of Ndola Office, Zambia. *International Journal of Research Publications and Reviews*. Vol.1 No. 2. Pg 24 – 31.
6. Administration of Health Services and Management Challenges in the Prevention and the control of Malaria in Zambia: The case of Luangwa District. *International Journal of Humanities, Social Sciences and Education*, Vol 7, Issue 3. pp46-57
7. Mulenga, J.N., Bwalya, B.B., Mulenga, M.C. and Mumba, K., 2020. Determinants of unmet need for family planning among married women in Zambia. *Journal of Public Health in Africa*. Vol. 11:1084; pg15-21.

8.3 Books and Book Chapters

1. Siyoto E., and Chibyalo Z. 2020. Rule of Origin. Trade Policy and Development Book. *Published by National Board of Trade Sweden.*
2. Siyoto E., and Mulenga J. N. 2020. Good Regulatory Practice in Trade. Trade Policy and Development Book. *Published by National Board of Trade Sweden.*
3. Mulenga J. N., and Mulenga C.M. 2020. Tariffs in Trade. Trade Policy and Development Book. *Published by National Board of Trade Sweden.*
4. Mulenga C.M. 2020. Regional and Bilateral Agreements. Trade Policy and Development Book. *Published by National Board of Trade Sweden.*
5. Mulenga C.M. 2020. Trade and Investments. Trade Policy and Development Book. *Published by National Board of Trade Sweden.*
6. Mulenga J. N., and Krisina Olofsson. 2020. Trade in Agriculture. Trade Policy and Development Book. *Published by National Board of Trade Sweden.*
7. Kalenga W., and Mulenga J. N. 2020. Trade in Services. Trade Policy and Development Book. *Published by National Board of Trade Sweden.*
8. Mulenga J. N. 2020. Trade in Defence Instruments. Trade Policy and Development Book. *Published by National Board of Trade Sweden.*
9. Mulenga J. N., and Simuchimba B. 2020. Subsidies in Trade. Trade Policy and Development Book. *Published by National Board of Trade Sweden.*
10. Mulenga J. N. 2020. Unilateral Trade Preferences. Trade Policy and Development Book. *Published by National Board of Trade Sweden.*
11. Mulenga J. N. 2020. Trade Negotiations and Implementations. Trade Policy and Development Book. *Published by National Board of Trade Sweden.*
12. Kalenga W. Mulenga J. N., and Nsama P. 2020. Trade Data Analysis. Trade Policy and Development Book. *Published by National Board of Trade Sweden.*

8.4 Consultancies

1. Bwalya Bupe Bwalya - Consultant: Scaling Up Nutrition Interventions (SUNI-EU) PROJECT in Choma and Kalomo District of Southern Province of Zambia
2. Bwalya Bupe Bwalya - Co – National Coordinator: Southern Africa Nutrition Initiative (SANI) Project in Mpika, Kanchibiya and Shiwang’andu districts of Muchinga Province
3. Bwalya Bupe Bwalya - Trainer: Stata Training for Monitoring and Evaluation (M&E) staff and partners.

8.5 Peer Reviewed Conference Papers/Presentations

1. Mr. Mulenga Chonzi Mulenga – Are economic agreements (EAs) relevant to Zambia’s trade? The case of the Southern African Development Community (SADC), *Impact of socio-economic reforms on sustainable development Quo Vadis* conference held from 3 – 4th December, 2020 in Lusaka at Radisson Blu Hotel
2. James Nilesh Mulenga – Women as Underachievers of Competitive Advantage in Trade, *Impact of socio-economic reforms on sustainable development Quo Vadis* conference held from 3 – 4th December, 2020 in Lusaka at Radisson Blu Hotel
3. Bwalya Bupe Bwalya and Virginia Chanda - Is there a link between Knowledge, Attitudes and Practice of Traditional Initiation Ceremonies and Child Marriages: A case study of Hamaundu Village in Pemba District of Zambia. *Impact of socio-economic reforms on sustainable development Quo Vadis* conference held from 3 – 4th December, 2020 in Lusaka at Radisson Blu Hotel
4. Mr Victor Chikampa and Sinvula Lungowe – The influence of training on effective commitment and task performance. *Impact of socio-economic reforms on sustainable development Quo Vadis* conference held from 3 – 4th December, 2020 in Lusaka at Radisson Blu Hotel
5. Mr. Daniel Mauzu – Relationship between economic reforms and poverty situation in Zambia. *Impact of socio-economic reforms on sustainable development Quo Vadis* conference held from 3 – 4th December, 2020 in Lusaka at Radisson Blu Hotel
6. Mr. George Phiri - Assessing Causes of School Dropouts Among Adolescent Male and Female Pupils: A Case Study of Kabwe Central Province Zambia. *Impact of socio-economic reforms on sustainable development Quo Vadis* conference held from 3 – 4th December, 2020 in Lusaka at Radisson Blu Hotel
7. Liseli Lisulo and Obinna Onukogu – The E-Voucher system and Small-Scale Farmers in Zambia. A case of Sibuyunji. *Impact of socio-economic reforms on sustainable development Quo vadis* conference held from 3 – 4th December, 2020 in Lusaka at Radisson Blu Hotel

8.6 Research Grants and Funded Collaborative Projects

1. Mr James Nilesh Mulenga - Addressing barriers and inequities towards achieving Universal Health Coverage using lessons from WHO AFRO region: The case of Zambia’s National Health Insurance Scheme. World Health Organisation for African Region. Currently working on reviewers’ comments.

2. Mr James Nilesh Mulenga - Gendered Impacts of Corona Virus on Small and Medium Enterprises and COVID 19 Pandemic Impact and its Implication on SME operations in Hospitality (K70 000 by MU); currently writing the report.
3. Mr. Nixon Chisonga - Profiling Land Tenure, Social Dynamics, Economic and Biophysical Circumstances of The Community of Mujimanzovu's Chiefdom in Lunga Luswishi Game Management Area in Mushindano District, North Western Province (K50 000 MU); Currently doing data analysis.

8.7 Future Research

1. James Mulenga - Socioeconomic Implications of Climate Change on sustainable development
2. George Phiri- Assessment of socioeconomic impact of Poverty on Vulnerable Communities and Enhanced Social protection of rural based women and girls.

CHAPTER NINE

MULTIDISCIPLINARY JOURNAL (MUMDJ), CONFERENCE AND QUALITY ASSURANCE

9.1 Mulungushi University Multidisciplinary Journal (MUMDJ)

The long awaited inaugural Mulungushi University Multidisciplinary online Journal (MUDJ) was finally launched on 3rd December 2020 at Radisson Blu Hotel by the Minister of Higher Education, Hon. Dr. Eng. Brian Mushimba who was represented by Director of University Education in the Ministry of Higher Education, Mr. Charles Mulenga. The MUMDJ is a bi annual journal which will be publishing articles in June and December respectively. During the launch of the online journal, 6 inaugural articles were launched by Director, Mr. Charles Mulenga with support by the Ag. University Librarian Mr. Paul Zulu and Ag. Deputy Vice Chancellor Prof. Douglas Kunda.

9.2 Mulungushi University Inaugural Conference 3-4 December, 2020

The University hosted its inaugural academic conference to commemorate 50 year of the Mulungushi economic reforms which were declared in 1968 at the Mulungushi Rock of Authority, the site where the university is located today. The theme for the conference was “the *Impact of Socio-Economic reforms on Sustainable Development in Zambia: Quo Vadis*”. The conference was held on 3-4th December, 2021 at Radisson Blu Hotel in Lusaka. It was a blended conference with 34 papers presented. A total of 80 participants including authors attended both online and virtually.

9.3 Quality Assurance

The Directorate through the quality assurance office ensures the university adheres to provision of quality academic learning through development learning programmes in line with the Higher Education Authority (HEA) guidelines.

9.3.1 Programme Accreditation

As a University we endeavour to ensure that all programmes being offered by the university are accredited with the relevant authorities within the country. Out of the total ninety-two (94) programmes offered by MU, eighty five (85) programmes have so far been submitted to HEA out of which a total of forty six (46) programmes have so far been accredited and thirty seven (37) have been submitted through HEA to Zambia Qualification Authority (ZAQA) to be recognised and registered as Qualification offered by MU.

9.3.2 Quality Assurance Policy

During the period under review, the university through a team Kwaleyela) developed the draft quality assurance policy (QAP) which is going through the University approval channels and will be approved

within the first quarter. This policy will be developed with the view of establishing the quality assurance directorate that will spear head the quality related activities cutting across academic and non-academic.