22ND RUFORUM ANNUAL GENERAL MEETING ZAMBIA2026
30 Nov-04 Dec.

RUFORUM
Capacity Building in Agriculture



ZAMBIA'S **SCIENTIFIC CONFERENCE:**

Nurture and mentorship of emerging scientists

ORAL PRESENTATION PROGRAMME

16-17 November 2026

OVERVIEW

THE PROGRAMME AND ITS LINKS TO THE AGM THEMATIC AREAS

This conference is designed to nurture and mentor the participants. Every session is led by a session chair and rapporteur. The sessions respond directly to the four thematic areas of the 22nd RUFORUM AGM, as summarised below. Most presentations address Theme 2, reflecting Zambia's national priority on resilient and productive agriculture. Themes 1, 3 and 4 are addressed through dedicated sessions and through the mentorship design of the conference. The sessions link to the four thematic areas of the 22nd RUFORUM AGM as follows:

AGM thematic area	Programme sessions
Theme 1: Enhance Africa's human capital to drive the continent's development	Session 4: Antimicrobial Residues, Nutrition and Public Health
Theme 2: Building a resilient and productive economy	Sessions 1, 2, 3, 5, 6, 7, and 8
Theme 3: Harnessing African universities and partner opportunities for mission delivery	Session 6: Digital Agriculture, Agricultural Economics and Clean Energy Session 8: Mining, Water and Environmental Health
Theme 4: Capacity sharing to train the next generation	Sessions 1, 2, 3, 4, 5, 6, 7, and 8

DAY ONE:

MONDAY 16 NOVEMBER 2026, 08:00–17:00 CAT

Webinar A

Registration Link: https://bit.ly/4kbc0yi

Official Opening Speeches

Time (CAT)	Presenter / Responsible
08:00–08:30	• Dr. Florence Nakayiwa, Deputy Executive Secretary, RUFORUM, Uganda • Professor Patricia Katowa Mukwato, Deputy Vice Chancellor – Academic Affairs, Mulungushi University, Zambia • Professor Rachid Serraj, the RUFORUM Technical Committee of the RUFORUM Board, Mohammed VI Polytechnic University (UM6P), Morocco

Webinar Chair: Professor Lydia Chabala, Soil Scientist, University of Zambia, Zambia
Rapporteur: Dr. Dina Mambwe, Crop Scientist, University of Zambia, Zambia

Time (CAT)	Session / Presentation	Presenter / Responsible
08:40–09:00	**Keynote Address:** From Field to Feed: Science for Productive Crop, Livestock and Aquaculture Systems in Zambia	**Keynote Speaker:** Dr. Wiza Ng'ambi, Aquaculture Specialist, University of Zambia, Zambia
Session 1: Crop Improvement and Soil Fertility **Session Mentor:** Dr. Wiza Mphande, Crop Scientist, Mulungushi University **Rapporteur:** Dr. Chindi Kapembwa, Soil and Climate Scientist, Copperbelt University		
09:00–09:15	**Abstract 001-OP:** Resistance Against Aphids (Aphis craccivora Koch.) and Multivariate Analysis of Cowpea Genotypes Based on Agronomic Traits	Aaron Chimbelya Siyunda University of Zambia, Zambia
09:15–09:30	**Abstract 002-OP:** Evaluation of Cowpea (Vigna unguiculata [L.] Walp) Metabolites Responsible for Resistance Against Aphids (Aphis craccivora K.) and Pulse Beetles (Callosobruchus maculatus F.) and Their Heritability	Aaron Chimbelya Siyunda University of Zambia, Zambia
09:30–09:45	**Abstract 003-OP:** Factors Influencing Adoption and Adoption Intensity of Improved Bean Varieties by Smallholder Farmers in Mpika District	Mwewa Lufungulo Zambia College of Agriculture, Zambia
09:45–10:00	**Abstract 004-OP:** Preliminary Screening of Agronomic and Malting Qualities of Advanced Sorghum Breeding Lines in Zambia	Asimbuyu Mwangala Zambia Agriculture Research Institute (ZARI), Zambia
10:00–10:30	Mentor Feedback, Questions and Discussion	Session Mentor
10:30–10:50	Break	
10:50–11:05	**Abstract 005-OP:** Optimising Basal Fertiliser Rates for White Sorghum: Variety-Specific Yield and Nutritional Implications in Zambia	Asimbuyu Mwangala Zambia Agriculture Research Institute (ZARI), Zambia
11:05–11:20	**Abstract 006-OP:** Machine learning enhances transcriptomic discovery of drought response mechanisms in sweet potato	Lebogang Siviya E., Figlan S. University of South Africa (UNISA), South Africa
11:20–11:35	**Abstract 007-OP:** Evaluation of the performance of indigenous rhizobia on nitrogen fixation process in common beans in Kasama and Senga Hill districts	Kauta S. Mshanga Zambia Agriculture Research Institute (ZARI), Zambia
11:35–12:05	Mentor Feedback, Discussion and Session Synthesis	Session Mentor
12:05–13:05	Break	
Session 3: Livestock, Aquaculture and Feed Safety Session Mentor: Dr. Artherton Jere, Aquaculture Expert, Kapasa Makasa University, Zambia Rapporteur: Ms. Eva Nambeya Kaonga, Aquaculture Expert, University of Zambia, Zambia		

13:05–13:20	**Abstract 015-OP:** Growth Performance of Three-Spotted Tilapia (Oreochromis andersonii) Fed Diets Containing Red-Claw Crayfish Meal as a Partial Replacement for Fishmeal	Azory Chipanda Mulungushi University, Zambia
13:20–13:35	**Abstract 016-OP:** Comparative Effects of Commercial and On-Farm Formulated Feeds on Growth Performance and Carcass Yield of Oreochromis andersonii	Natasha Nyendwa Copperbelt University, Zambia
13:35–13:50	**Abstract 017-OP:** Combining Abilities for Carcass Yield Performance in Diallel Crosses of Five Indigenous Chicken Strains under an Improved Production System in Zambia	Mayoba Barbara Moono University of Zambia, Zambia
13:50–14:05	**Abstract 018-OP:** Effects of Orego-Lect Supplementation on Growth Performance of Cobb 500 Broilers in Zambia	Vivian Musonda Mulungushi University, Zambia
14:05–14:35	Mentor Feedback, Questions and Discussion	Session Mentor
14:35–14:55	Break	
14:55–15:10	**Abstract 019-OP:** Mitigating the Effects of Dry Season on Feed Quality Through Improved Livestock Feeding Strategies Among Smallholder Dairy Producers in Southern Zambia	Donald Mudenda Chisowa Kapasa Makasa University, Zambia
15:10–15:25	**Abstract 020-OP:** Farmer Awareness and Occurrence of Total Aflatoxins in Non-Ruminant Feeds in Zambia: Implications for Livestock Productivity, Food Safety and Agricultural Transformation	Rabecca N. K. Lubinda University of Zambia, Zambia
15:25–15:40	**Abstract 021-OP:** Availability of antimicrobial agents in common broiler feed brands on the market in Chilanga and Lusaka Districts of Zambia	Samson Mtonga University of Zambia, Zambia
15:40–16:20	Mentor Feedback, Discussion and Session Synthesis	Session Mentors
16:20–16:50	Key Messages and Mentors' Reflections	Webinar Chair
16:50–17:00	Closing Remarks	Webinar Chair

Webinar B

Registration Link: https://bit.ly/4BlMBbl

Official Opening Speeches

Time (CAT)	Presenter / Responsible
08:00–08:30	• Dr. Runyararo Jolyn Rukarwa, Senior Programme Officer, Human Capital Development, RUFORUM, Uganda • Professor Trywell Kalusopa, Deputy Vice Chancellor (Research and Innovation), University of Zambia, Zambia • Dr. Rufaro Madakadze, Lead, Capacity Building and Technical Support, AGRA

Webinar Chair: Dr. Mirriam Phiri Chiwoya, Soil Scientist, University of Zambia, Zambia
Rapporteur: Dr. Peter Kaluba, Soil Scientist, University of Zambia, Zambia

Time (CAT)	Session / Presentation	Presenter / Responsible
08:40–09:00	**Keynote Address:** Healthy Soils, Healthy People: Emerging Science for Zambia's Food, Nutrition and Health Security	**Keynote Speaker:** Dr. Patrick Chikoti, Deputy Director, Zambia Agriculture Research Institute, Zambia
Session 2: Soil Health, Conservation Agriculture and Land Management **Session Mentor:** Dr. Chewe Nkonde, University of Zambia, Zambia **Rapporteur:** Dr. Donald Zulu, Agroforestry and Agriculture, Copperbelt University, Zambia		
09:00–09:15	**Abstract 008-OP:** Geostatistical Mapping of Spatial Heterogeneity of Soil Physical Properties and Organic Matter Under Conventional and Conservation Tillage in A Semi-Arid Zambian Agro-Ecology	Elizabeth Kabwe Ministry of Agriculture, Zambia
09:15–09:30	**Abstract 009-OP:** Physico-chemical and biological soil changes in a sustainable intensification gradient under smallholder agriculture in Eastern Zambia	Mulundu Mwila Zambia Agriculture Research Institute, Zambia
09:30–09:45	**Abstract 010-OP:** Multi-objective physico-chemical optimization of compost-sand-sawdust substrate for greenhouse and sustainable organic tomato production	Anita Kaleba Mwaanga Zambia Agriculture Research Institute, Zambia
09:45–10:00	**Abstract 011-OP:** Effect of Soil Health Practice Intensity on Food Access and Availability: Panel Study of Zambian Smallholder Farmers	Juliet Mwale University of Zambia, Zambia
10:00–10:30	Mentor Feedback, Questions and Discussion	Session Mentor
10:30–10:50	Break	

10:50–11:05	**Abstract 012-OP:** The Contribution of Conservation Agriculture to Food Security: A Case Study of Good Neighbours Zambia in Shibuyunji District	Danstan Stephen Sichalwe University of Zambia, Zambia
11:05–11:20	**Abstract 013-OP:** A Systematic Review of Behavioural Change Approaches for Sustaining Conservation Agriculture Adoption and Climate Resilience among Smallholder Farmers	Laura Nkhuwa University of Zambia, Zambia
11:20–11:35	**Abstract 014-OP:** Sustainable Agriculture Practices Adoption, Self-reported Land Loss and Household Food Security among Smallholder Farmers in Semi-Arid Setting	Felix Mulyokela Ministry of Agriculture, Zambia
11:35–12:05	Mentor Feedback, Discussion and Session Synthesis	Session Mentor
12:05–13:05	Break	
Session 4: Antimicrobial Residues, Nutrition and Public Health **Session Mentor:** Dr. Ntombi Mudenda, Small Animal Medicine and AMR Expert, University of Zambia, Zambia **Rapporteur:** Ms. Sylvia Harrison Ng'andu, Animal Scientist, University of Zambia, Zambia		
13:05–13:20	**Abstract 022-OP:** A Comparative Evaluation of Antimicrobial Residue Levels in Broiler Chickens from the Copperbelt and Lusaka Provinces of Zambia Based on Farmer Field School Participation	Mahongo Selwa University of Zambia, Zambia
13:20–13:35	**Abstract 023-OP**: Understanding the Drivers of the Reduction in Childhood Stunting in Zambia: A Decomposition Analysis, 2001–2024	Million Phiri University of Zambia, Zambia
13:35–13:50	**Abstract 024-OP:** Linking Smallholder Production Diversity to Child Dietary Diversity: Evidence from Rural Households in Monze District, Zambia	Mwale Lilungwe Rusangu University, Zambia
13:50–14:05	**Abstract 025-OP:** Dietary Diversity and Academic Performance among Primary School Pupils at Kalingalinga Primary School in Lusaka, Zambia	Vanessa Malumo University of Zambia, Zambia
14:05–14:35	Mentor Feedback, Questions and Discussion	Session Mentor
14:35–14:55	Break	
14:55–15:10	**Abstract 026-OP:** Sugar-Sweetened Beverage Consumption and its Determinants Among People Living with HIV in Zambia: Analysis of the 2023 National NCD/HIV Survey	Sarah Kashimoto University of Zambia, Zambia
15:10–15:25	**Abstract 027-OP:** Revisiting Selenium Supplementation as a Preventive and Restorative Wellness Strategy: Lessons from Zambia's 2004–2007 Public Health Experience	Khama Hachunde Brekha Investments, Selenium Wellness Project, Zambia

15:25–15:40	**Abstract 028-OP:** Socio-Economic Determinants of Adolescent Pregnancy and Implications for Community Health Outcomes in Kapiri Mposhi District	Simon Mbewe Copperbelt University, Zambia
15:40–16:20	Mentor Feedback, Discussion and Session Synthesis	Session Mentor
16:20–16:50	Key Messages and Mentors' Reflections	Webinar Chair
16:50–17:00	Closing Remarks	Webinar Chair

DAY TWO: TUESDAY 17 NOVEMBER 2026, 08:00–17:00 CAT

Webinar A

Registration Link: https://bit.ly/4kbc0yi

Webinar Chair: Professor Gillian Kabwe, Forestry and Environmental Management, Copperbelt University, Zambia

Rapporteur: Dr. Wiza Mphande, Crop Scientist, Mulungushi University, Zambia

Time (CAT)	Session / Presenter	Presenter / Responsible
08:40–09:00	**Keynote Address:** Science for Climate Resilience and Biodiversity: Evidence from Zambia's Emerging Scientists	**Keynote Speaker: Professor Bridget Bwalya,** Natural Resources Management Expert, University of Zambia, Zambia
Session 5: Climate Risk, Adaptation and Food Security **Session Mentor: Dr. Chindi Kapembwa,** Soil and Climate Scientist, Copperbelt University **Rapporteur: Mr. Eugine Kaango,** Agricultural Economist, University of Zambia		
09:00–09:15	**Abstract 029-OP:** Making Drought Measurable: A Quantitative Assessment of Historical Drought Conditions in Zambia	Francisca Nsama University of Zambia, Zambia
09:15–09:30	**Abstract 030-OP:** Bundled Adaptation Strategies and Food System Resilience to Climate Change Impacts: A Cluster Analysis of Smallholder Farmer Portfolios in Semi-Arid Zambia	Chisengele Lewis University of Zambia, Zambia
09:30–09:45	**Abstract 031-OP:** Building Resilient Agrifood Systems through Climate Information Services: Lessons from Smallholder Agribusiness Enterprises in Zambia	Joseph T. Mwale Zambia
09:45–10:00	**Abstract 032-OP:** Strengthening State Resilience to Disasters and Shocks in Zambia: Gaps and Pathways for Effective Disaster Risk Governance	Adrian Phiri Mulungushi University, Zambia
10:00–10:30	Mentor Feedback, Questions and Discussion	Session Mentor
10:30–10:50	Break	

10:50–11:05	**Abstract 033-OP:** Beyond Correlation: A Counterfactual Framework for Attributing Crop Loss to Climate at the Smallholder Farm Scale in Zambia (YieldTrace)	Darry Derrick Kapasa Makasa University, Zambia
11:05–11:20	**Abstract 034-OP:** Adoption of Improved Maize Storage Technologies, Post-Harvest Losses and Household Food Security among Smallholders in Zambia	Felix Mulyokela Ministry of Agriculture, Zambia
11:20–11:35	**Abstract 035-OP:** Impact of Large-Scale Agricultural Investment Interventions on Smallholder Household Food Security: A Case of Amatheon Agri Limited Zambia	Mapalo Kapuka Kabonde University of Zambia, Zambia
11:35–12:05	Mentor Feedback, Discussion and Session Synthesis	Session Mentor
12:05–13:05	Break	
Session 7: Forests, Wildlife and Biodiversity **Session Mentor:** Dr. Paul Simfukwe, Environmental Soil Scientist, Mulungushi University, Zambia **Rapporteur:** Mr. Ignatius Chimbaka, Animal Scientist, University of Zambia, Zambia		
13:05–13:20	**Abstract 043-OP:** Changing fire regimes shape tree resprouting and biodiversity in Miombo woodlands of Zambia	David Chapoloko University of Cape Town
13:20–13:35	**Abstract 044-OP:** Geo-spatial Patterns of Social Norms Associated with Forest-Degrading Behaviours in the Magoye Sub-Basin, Zambia	Simweene Everisto University of Zambia, Zambia
13:35–13:50	**Abstract 045-OP:** Integration of UAS and household surveys informs tree species specific conservation practices in small-scale agricultural landscapes of Zambia's Copperbelt Province	Hastings Shamaoma Copperbelt University, Zambia
13:50–14:20	Mentor Feedback, Questions and Discussion	Session Mentor
14:20–14:40	Break	
14:40–14:55	**Abstract 046-OP:** Effect of Land Use Practices on Human Elephant Conflict in the Rufunsa Game Management Area, Luangwa District, Zambia	Martha Lumbiwe Banda Department of National Parks and Wildlife, Zambia
14:55–15:10	**Abstract 047-OP:** The Plastisphere of Southern Lake Tanganyika: Implications for Biodiversity and Solid-Waste Management in an African Great Lake	Agape Lingunja Kapasa Makasa University, Zambia
15:10–15:25	**Abstract 048-OP:** Assessment of Critical Doses to Plant Species Based on Aggregated Radioecological Data	Ephraim Chiyowela Obninsk Institute (NRNU MEPhI), Russia
15:25–16:20	Mentor Feedback, Discussion and Session Synthesis	Session Mentor
16:20–16:50	Key Messages and Mentors' Reflections	Webinar Chair
16:50–17:00	Closing Remarks	Webinar Chair

Webinar B

Registration Link: https://bit.ly/4BIMBbl

Webinar Chair: Professor Emmanuel Musaba, Associate Professor, Mulungushi University, Zambia

Rapporteur: Mr. Nashon Ngalande, Agricultural and Resource Economics, University of Zambia, Zambia

Time (CAT)	Session / Presentation	Presenter / Responsible
08:40–09:00	Keynote Address: Digital, Clean and Safe: Emerging Science for Zambia's Green, Digital and Mining Transitions	Keynote Speaker: Dr. Jewette Masinja, Metallurgist, University of Zambia, Zambia
Session 6: Digital Agriculture, Agricultural Economics and Clean Energy **Session Mentor:** Dr. Hastings Munyenyembe, Agribusiness Management, Kapasa Makasa University, Zambia **Rapporteur:** Mr. Lameck Nsama, ICT Expert, Kapasa Makasa University, Zambia		
09:00–09:15	**Abstract 036-OP:** Bridging the Fragmented Ecosystem: An Interoperable, Ledger Verified AI Framework for Smallholder Crop Diagnostics and Agrarian Markets in Zambia (LUDA)	Darry Derrick Kapasa Makasa University, Zambia
09:15–09:30	**Abstract 037-OP:** Understanding the Lifeworld of Smallholder Farmers Using Digital Agricultural Technologies in Lukulu North: An Interpretive Framework for Improving Utilisation	Musaka Mulanga Chikobola University of Zambia, Zambia
09:30–09:45	**Abstract 038-OP:** Understanding Smallholder Farmers' Lifeworld Engagement with Digital Agricultural Technologies: A Hermeneutic Phenomenological Study in Zambia	Musaka Mulanga Chikobola University of Zambia, Zambia
09:45–10:00	**Abstract 039-OP:** Comparative analysis of maize production determinants among smallholder farmers across Zambia's agro-ecological zones	Mutale Chambanenge University of Zambia
10:00–10:30	Mentor Feedback, Questions and Discussion	Session Mentor
10:30–10:50	Break	
10:50–11:05	**Abstract 040-OP:** Beyond Charcoal: Assessing Policy and Institutional Readiness for Agricultural-Residue Briquettes in Zambia's Clean-Cooking Transition	Wantula Sivile Chanda Independent Researcher, Zambia
11:05–11:20	**Abstract 041-OP:** Production of Electricity From Municipal Solid Waste	Muyembe Mwenya Youth for Inclusive Growth and Safe Environment, Zambia
11:20–11:35	**Abstract 042-OP:** Design and Performance Evaluation of a Solar-Powered Wastewater Aeration System for Treatment Plants on the Copperbelt, Zambia	Kelvin Sandala University of Zambia, Zambia
11:35–12:05	Mentor Feedback, Discussion and Session Synthesis	Session Mentor
12:05–13:05	Break	

Session 8: Mining, Water and Environmental Health **Session Mentor:** Dr. Lackson Chama, Copperbelt University **Rapporteur:** Mr. Obote Shakashite, Copperbelt University		
13:05–13:20	**Abstract 049-OP:** The operational efficiency of the dry dust scrubber used for emission control at a copper processing plant on the Copperbelt (case study area: Mopani Copper Mines)	Wendy Nyambe Copperbelt University, Zambia
13:20–13:35	**Abstract 050-OP:** Compliance Gaps Between Approved Environmental Management Plans and On-Ground Practices at a Copper Mining Operation in Zambia's Copperbelt Province	Blessings Kapala Copperbelt University, Zambia
13:35–13:50	**Abstract 051-OP:** Heavy Metal Contamination and Human Health Risk Assessment Around Artisanal Mining Sites: A Case Study of Matala, Mumbwa District, Zambia	Chipoya Laureen Copperbelt University, Zambia
13:50–14:20	Mentor Feedback, Questions and Discussion	Session Mentor
14:20–14:40	Break	
14:40–14:55	**Abstract 052-OP:** Characterisation of Wastewater Influents at a Wastewater Treatment Plant in Kitwe, Zambia	Keziah Chibwe Copperbelt University, Zambia
14:55–15:10	**Abstract 053-OP:** Microbial Water Quality at the Point of Use: The Role of Socio-Economic Factors and Water Handling Practices in Kitwe District, Zambia	Sarah Ng'andwe Kapasa Makasa University, Zambia
15:10–15:25	**Abstract 054-OP:** Exploring the contribution of multinational mining firms to SDGs through the ESG Framework, and Challenges Faced	Chama Francis Copperbelt University, Zambia
15:25–16:20	Mentor Feedback, Discussion and Session Synthesis	Session Mentor
16:20–16:50	Key Messages and Mentors' Reflections	Webinar Chair
16:50–17:00	Closing Remarks	Webinar Chair