

Curriculum Vitae for Dr. Jacob Bulenga Lisuma



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Personal Details:

1 **Full Name:** Jacob Bulenga Lisuma (PhD)

2 **Institutional Affiliation and Address:**

TORITA – Tobacco Research Institute of Tanzania, Tumbi Area, Urambo Road, Tabora. P.O Box 431 Tabora, Tanzania

NM-AIST – Nelson Mandela African Institution of Science and Technology, Tengeru Arusha, P.O Box 447 Arusha, Tanzania

Permanent Home Address:

P.O Box 176
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Passport Number:

TAE462238 Issued Date: 18.03.2022; Expiry Date: 17.03.32:

National Identity Number:

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3 **Occupation:** Research Director at TORITA, Tumbi Tabora

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4 **Sex:** Male

5 **Marital Status:** Married

6 **Academic and Professional Qualification:**

6.1:ORCID:<https://orcid.org/0000-0002-6928-2371>

6.1.1:ResearcherID:AAS-7441-2021

6.1.2:SKYPE:jbulenga35

6.1.3:TWITTER:@JacobJbulenga

6.2 Academic qualification

PhD in Life Sciences (Sustainable Agriculture), The Nelson Mandela African Institution of Science and Technology (NM-AIST), Arusha, Tanzania, 2020

M.Sc., Soil Science and Land Management, Sokoine University of Agriculture, Morogoro, Tanzania, 2003

B.Sc., Agronomy, Sokoine University of Agriculture, Morogoro, Tanzania, 1999

Certificate in Labour Inspection Policies in Relation to Child Labour in Agriculture, ILO International Training Center, Turin Italy, 2008

Certificate in Information Technology in Agriculture, National Engineering Research Centre on Information Technology in Agriculture (NERCITA), Beijing, China, 2007

6.3 Summary Profile

Dr. Jacob Bulenga Lisuma (PhD) is currently working as a Research Director at the Tobacco Research Institute of Tanzania (TORITA) under the Ministry of Agriculture in Tanzania since 2011. He is an expert in research and published manuscripts on the safe use of agrochemicals, agronomy, soil fertility, linking soil fertility with bacteria, bacteria DNA extraction, nutrient adsorption, dynamics of nicotine in soils, etc. In addition, Dr. Lisuma has specialized in Life Sciences – Sustainable Agriculture (genomics), focusing interaction of soil fertility, rhizosphere and diversity of bacterial strains based on the 16S region. Further has been involved in writing efficacy of safe use of agrochemicals reports and editing the agrochemicals reports for over ten years.

He has undertaken several international and local agricultural projects, including ILO/IPEC, South to South Cooperation Project (ABC)/Brazil-Tanzania, Vi Agroforestry, Soil Conservation and Agroforestry Project in Arusha (SCAPA) Tanzania, Rural Market Development Program (RMDP)

Morogoro, Tanzania, and worked for too many agricultural firms/companies. In addition, Dr. Lisuma supervises postgraduate students, examines dissertations/theses, reviews manuscripts, is a member of various agricultural boards such as the Tobacco Research Institute of Tanzania (TORITA), Tanzania Agricultural Research Institute (TARI), and supports technical expertise to the Tanzania Fertilizer Regulatory Authority (TFRA), Editorial Board Member of Journal of Modern Agriculture and Biotechnology (JMAB) etc.

6.3.1 Key Qualifications for Senior Managerial Position

Dr. Lisuma is currently working as a Research Director at the Tobacco Research Institute of Tanzania (TORITA) since the beginning of the year 2011 in executing duties related to management, agricultural policy, research on fertilizers evaluation, efficacies of agrichemicals, soil fertility, monitoring and evaluation of research projects fundraising and financial control. Furthermore, Dr. Lisuma is a Secretary to the TORITA Board of Directors, representing the Institute's Performance to the Board of Directors on the best strategies to conduct research based on stakeholders' requests. Dr. Lisuma is also a member of the Technical Committee under the Tanzania Tobacco Council. The Technical Committee advises Councilors on technical matters related to research findings, outsourcing inputs for tobacco production, market global requirements, organizing tobacco marketing under the minor costs, reviewing the Cost of Production, and pre-setting the annual tobacco price. In addition, Dr. Lisuma has been the first Board Member of the Tanzania Agricultural Research Institute (TARI) starting 14th May 2017 to 10th May 2021.

Dr. Lisuma has worked as the National Program Coordinator for the ILO in Tanzania, coordinating ILO activities with those of other international donors and agencies and the Government of Tanzania (GoT) programs. Experienced in project design, planning, and implementation, he is also conversant with various information systems used to monitor and evaluate agriculture and child labour programs, including the GoT CLMS. An effective advocate for agriculture and child labour policies and standards, Dr. Lisuma is also a well-rounded manager, able to oversee field activities and build capacity among the community and other organizations to ensure the sustainability of programs and policies. He has worked extensively on farm family well-being programs and other programs to support poor rural families and combat hazardous child labour in the agriculture sector. In addition, he is a soil scientist and agronomist who has worked as a local extension officer and understands the needs of agricultural communities, including environmental conservation, soil science, and land evaluation. He has hands-on training and capacity-

building experience and understands how to develop community programs to promote agribusiness skills.

Dr. Jacob Bulenga Lisuma is a Tanzanian national with over 25 years of agricultural experience, emphasizing commercial/food crops and Rural Marketing Development under corporate social responsibilities. Furthermore, Dr. Jacob Bulenga Lisuma has over ten years of experience in a senior position in government service after acquiring four years at ILO (United Nations Organization).

6.4 Professional Experiences

2011- Present: Research Director – TORITA

Ensure effective and efficient implementation of the Research activities, approve research proposals and funds release, monitor and evaluate the research activities, update the Minister of Agriculture on the research activities under implementation, and assist the Minister of Agriculture, Livestock and Fisheries on annual budget preparation. Monitoring and evaluation of the research projects, administering finance and administration procedures. Coordinating the international and national affairs related to research activities and advising the TORITA Board of Directors on the institute's right direction in the research activities. Member of the Technical Committee Team, under the Tobacco Council, with primary duties of advising Councilors on the various research matters, inputs purchase and marketing strategies for the excellent quality crop.

2008-2011: National Program Officer UTSP II ILO/IPEC

Ensure effective and efficient implementation of the Project through timely planning, provision of inputs, effective backstopping, timely and efficient delivery of outputs, monitoring, evaluation, and reporting on programme activities in conformity with ILO-IPEC policies and strategies programming guidelines, and administrative and financial procedures. Prepare and update individual and Project work plans and establish and maintain information systems that track the Project's technical activities and relevant economic and social issues. Under the guidance of the ILO Director, cooperate closely with government stakeholders, employers' and workers' organizations, NGOs, and other donors to plan and implement activities related to combatting child labour.

Provide technical assistance and guidance to the national steering and advisory committees and promote ILO child labour policies, International Labour Standards, and international treaties. Prepare

periodic and ad hoc reports on programme status. Identify opportunities for initiatives/projects/programmes and negotiate and liaise with donors in consultation with the ILO Office and IPEC management. Support start-up activities for new projects and programmes and provide technical and political support to IPEC project coordinators responsible for IPEC projects/programmes in the country. Promote and strengthen capacity-building efforts among constituents to ensure the smooth handing over of the project activities to the community, especially the Urambo District Council.

Enhance and promote initiatives related to project exit strategies, including establishing a framework for addressing child labour issues in the tobacco sector in Urambo and elsewhere in Tanzania.

2003-2008: Production and Social Development Country Program

Coordinator – ATTT

Coordinated farm family well-being programmes in collaboration with rural NGOs that incorporated natural resource sustainability, safe use of agrochemicals, enhancing soil fertility, AIDS/HIV prevention, and support for low-income families. Implemented Philip Morris International strategies to combat hazardous child labour in tobacco growing areas. Designed leaflets and an annual calendar to promote awareness of child labour and prepared a policy manual on good agricultural practices related to soil fertility, crop husbandry and safe use of agrochemicals. Timely preparation for the technical, financial, and progress reports. Coordinated soil and water sampling to tobacco growing regions. Represent the Association to the Government concerning matters related to the agricultural environment.

2002–2003 Coordinator, Rural Market Development Program (RMDP), Morogoro, Tanzania

Coordinated logistics for developing marketing of perishable and non perishable crops. Sharing with rural farmers on the dates of crop marketing, means of transportation of the purchased crops to the main storage places.

1999–2000 Village Extensionist, Vi Agroforestry Project, Musoma, Tanzania

Provided training and demonstrations of agroforestry farming systems. Facilitated meetings and trained collaborators, including extensionists and farmers. Collected and analyzed data on the established alley.

1993–1995 Soil Conservation Technician Trainee, Soil Conservation and Agroforestry Project Arusha (SCAPA), Arusha, Tanzania

Trained farmers to utilize their agricultural land efficiently through laying contours along steep slopes and on good agroforestry practices.

7 Research projects undertaken as PI

National Evaluation of Polyhalite Fertilizer in Tanzania, 2014-2017

ILO/IPEC - Urambo Tobacco Sector Program II (UTSP) Child labour Elimination in Tobacco Growing Areas of Urambo, Tabora, 2008-2011

ATTT Corporate Social Responsibilities (CSR) and agroforestry in Tanzania tobacco growing areas, 2003-2010

DANIDA Evaluation of fertility status on Volcanic Ash Soils in Mpangala, Makete Iringa, 2000-2002

8 On going Research projects involved as PI and collaborator

Influence of Timing Fertilizer Application on Tobacco Leaf Yield and Quality, 2019-2022: TZS 15,850,000

Solar-assisted Heat Pump Drying Technology for Industrial and Agricultural Applications in Tanzania: TORITA-NMAIST: TZS 120,000,000

REE_Use: Rethinking Minjingu Phosphates (Donau University Krems-Australia; Tanzania Atomic Energy Commission-TAEC, Tobacco Research Institute of Tanzania – TORITA: 2020-2024): Euro 46,000

9 Collaborative National research projects undertaken

Tobacco Production Baseline Survey in Serengeti, Tarime and Rorya Districts, Mara Region. 2010-2012

Establishing rocket tobacco curing barns technology for wood saving, 2004-2007

Establishing fertilizer and agrochemicals recommendations in Tanzania tobacco sector, 2002-2003

10 Publications [<https://orcid.org/0000-0002-6928-2371>]

Lisuma, J.B. and Mbwambo, A.F. 2024. The Effects of Blended N₁₀P₁₈K₂₄ Fertilizer on Agronomic Performance Tobacco (*Nicotiana tabacum* L) Plant and Quality of Flue Cured Tobacco Leaf. Tanzania Journal of Agricultural Sciences, Vol. 22 No. 2. 300-308. Available online <https://www.ajol.info/index.php/tjags>

Mwalongo, D.A.; Haneklaus, N.H.; Lisuma, J.B.; Mpumi, N.; Amasi, A.I.; Mwimanzi, J.M.; Chuma, F.M.; Kivevele, T.T.; Mtei, K.M. Uranium Dissemination with Phosphate Fertilizers Globally: A Systematic Review with Focus on East Africa. *Sustainability* 2024, 16, 1496. <https://doi.org/10.3390/su16041496>

Lisuma, J.B., Semoka, J.M. and Mbwambo, A.F., 2023. Effect of Timing Fertilizer Application on leaf yield and quality of tobacco. *Heliyon*. <https://doi.org/10.1016/j.heliyon.2023.e19670>

Mwalongo, D.A., Haneklaus, N.H., Carvalho, F.P., Lisuma, J.B., Kivevele, T.T. and Mtei, K.M., 2023. Influence of phosphate fertilizers on the radioactivity of agricultural soils and tobacco plants in Kenya, Tanzania, and Uganda. *Environmental Science and Pollution Research*, pp.1-20. <https://doi.org/10.1007/s11356-023-27543-8>

Mwalongo, D.A., Haneklaus, N.H., Lisuma, J.B., Kivevele, T.T. and Mtei, K.M., 2022. Uranium in phosphate rocks and mineral fertilizers applied to agricultural soils in East Africa. *Environmental Science and Pollution Research*, pp.1-9.

Lisuma, J.B., Muna, E.I., Mbwambo, A.F., Pessa, A.E., Mbaao, K.S., Malley, Z.J., 2022. Suitability of Blended Minjingu Fertilisers for Flue Cured Tobacco Production in Tanzania's Sandy Soils. *J Mod Agric Biotechnol*, 2022; 1(3): 13. DOI: 10.53964/jmab.2022013

Mlay, D.P., Lisuma, J.B., 2022. Assessing the Potential of Irrigating Against Rainfed *Manihot Esculenta* Crantz Under Different Levels of NPK Fertilizers on Storage Root Yields in Tanzania Lake Victoria Zone. *J Mod Agric Biotechnol*, 1(2).

Lisuma, J.B., Philip, A.J., Ndakidemi, P.A. and Mbega, E.R., 2022. Assessing residue effects of tobacco nicotine on the yields, nutrient concentrations and nicotine uptake of a subsequent maize crop. *Field Crops Research*, 277, p.108401.

Lisuma JB, Mrema EJ, Mbwambo AF. Assessing The Effects of Fertilizer Applied to Soils with Different Soil Organic Carbon on Sorghum (*Sorghum Bicolor* L.) Moench, Yields. *J Mod Agric Biotechnol* 2022; 1(1):4. DOI: 10.53964/jmab.2022004.

Lisuma, J.B., Mbwambo, A.F., Erick, Z.A., Pessa, A.E., Joel, A.P. and Maerere, E.S., 2021. Efficacy of emamectin benzoate (3.4 ME) in the control of caterpillar (*Spodoptera litura* F) in tobacco (*Nicotiana tabacum* L) crop in Tanzania. *Tanzania Journal of Agricultural Sciences*, Vol. 20 No. 2. 309-316.

Lisuma, J.B.; Mbega, E.R.; Ndakidemi, P.A. 2021. The Effects of Cultivating Tobacco and Supplying Nitrogenous Fertilizers on

Micronutrients Extractability in Loamy Sand and Sandy Soils. *Plants* 2021, 10,1597. <https://doi.org/10.3390/plants10081597>

Lisuma, J.B., Zuberi, Z., Ndakidemi, P.A. and Mbega, E.R., 2020. Linking rhizosphere bacterial diversity and soil fertility in tobacco plants under different soil types and cropping pattern in Tanzania: A pilot study. *Heliyon*, 6(7), p.e04278.

Lisuma, J, Mbega, E. and Ndakidemi, P., 2020. Influence of Tobacco Plant on Macronutrient Levels in Sandy Soils. *Agronomy* 2020, 10(3), 418; <https://doi.org/10.3390/agronomy10030418>

Lisuma, J.B., Mbega, E.R. and Ndakidemi, P.A., 2019. Dynamics of nicotine across the soil–tobacco plant interface is dependent on agro-ecology, nitrogen source, and rooting depth. *Rhizosphere*, p.100175. <https://doi.org/10.1016/j.rhisph.2019.100175>

Lisuma, J.B., Mbega, E.R. and Ndakidemi, P.A., 2020. Nicotine release at the tobacco rhizosphere and their adsorption capacities in different Soil Textures. *Rhizosphere*, p.100210.<https://doi.org/10.1016/j.rhisph.2020.100210>

Lisuma, J.B., E.R. Mbega and P.A. Ndakidemi, 2019. Influence of nicotine released in soils to the growth of subsequent maize crop, soil bacteria and fungi. *Intl. J. Agric. Biol.*, 22: 1–12. DOI: 10.17957/IJAB/15.1026

Kuboja, N.M; Kalala, A.M; Lisuma, J.B and Mrutu, M. 2012. Tobacco Production Baseline Survey in Serengeti, Tarime and Rorya Districts, Mara Region. *Journal of Agricultural Science and Technology B* 2 (2012):471-481

ILO-IPEC, Dar es Salaam. 2009. Child labour series 1-3 booklets: Corporate Social Responsibility for Farmers – Understanding the Concept of Child Labour; National Policies, Legislation and Strategies; and Child Labour, Commercial Agriculture and Role of Tobacco.

Lisuma, J. and Mrema, J.P. 1999. The Effects of Farm Yard Manure on the Soil pH, Cation Exchange Capacities, Exchangeable Bases on Acid Soils from the Sokoine University of Agriculture (SUA) Farm, Morogoro, Tanzania. pp 199-205. In Proceedings of the Fourth Annual Research Conference of the Faculty of Agriculture: SUA, Morogoro, Tanzania Nov 17–19, 1999.

Lisuma, J.B; Semoka, J.M. R and Semu, E. 2006. Maize Yield Response and Nutrient Uptake after Micronutrient Application on a Volcanic Soil. *Agronomy Journal*, 98(2): 402-406. doi:10.2134/agronj2005.0191

Lisuma, J., Pavuluri, K., Mlay, D., Ahodo, K., Meakin, R. and Kuboja, N., 2017, October. Response of Tobacco to New Fertilizer Blends Containing Polyhalite in Comparison to Conventional Blends in Tanzania. In *ASA, CSSA and SSSA International Annual Meetings*. ASA-CSSA-SSSA

Lisuma, J., 2020. Effects of Tobacco Nicotine on Maize Yield and Soil Bacteria in Tabora Western Tanzania (Doctoral dissertation, NM-AIST)

Lisuma, J., 2003. Identification and Correction of Some Micronutrient Constraints in a Volcanic Soil from Mpangala Village, Makete District for Optimisation of Maize Yields (MSc dissertation, SUA)

Lisuma, J., 1999. The Effects of Farmyard Manure (FYM) on the Soil pH, Cation Exchange Capacities (CEC), and Exchangeable Bases on Acid Soils from the Sokoine University of Agriculture (SUA) Farm, Morogoro, Tanzania (BSc Special Project, SUA)

Research Keywords: Soil Science/Fertility in volcanic soils, Land Management, Soil Biota/Genomics, Allelopathy on Tobacco-Maize interactions

10.1 Articles submitted to the Journals

- i. Rare Earth Elements and Uranium in Minjingu Phosphate Fertilizer Products: Plant Food for Thought. Nils H. Haneklaus^{1,2*}, Dennis A. Mwalongo^{1,3}, Jacob B. Lisuma⁴, Aloyce Amasi^{1,3}, Jerome Mwimanzi^{1,3}, Tomislav Bituh⁵, Jakub Nowak⁶, Urszula Ryszko⁷, Piotr Rusek⁷, Ali Maged⁸, Khaoula Qamouche⁹, Hilda D. Kyomuhimbo¹⁰, Hendrik Brink¹⁰, Raghav S. Soni¹¹, Ashwin W. Patwardhan¹¹, Pushpito K. Ghosh¹¹, Thomas T. Kivevere¹, Kelvin M. Mtei¹, Stanisław Waclawek¹². Review Article submitted to Elsevier - Resources, Conservation and Recycling Journal (15 November 2023)

¹*Nelson Mandela African Institution of Science and Technology (NM-AIST), School for Materials, Energy, Water, Environmental Science and Engineering, P.O. Box 447, Arusha, Tanzania*

²*Universität für Weiterbildung Krems, Td-Lab Sustainable Mineral Resources, Dr.-Karl-Dorrek-Straße 30, 3500 Krems an der Donau, Austria*

³*Tanzania Atomic Energy Commission (TAEC), Directorate of Nuclear Technology and Technical Services, P. O. Box 743, Arusha, Tanzania*

⁴*Tobacco Research Institute of Tanzania (TORITA), P.O. Box 431, Tabora, Tanzania*

⁵*Institute for Medical Research and Occupational Health, Zagreb, Croatia*

⁶*AGH University of Science and Technology, Faculty of Physics and Applied Computer Science, Mickiewicza 30 Av., 30-059 Kraków, Poland*

⁷*Łukasiewicz Research Network–New Chemical Syntheses Institute, al. Tysiąclecia Państwa Polskiego 13a, 24-110 Puławy, Poland*

⁸*Suez University, Faculty of Science, Geology Department, P.O. Box 43518, El Salam City, Suez Governorate, Egypt*

⁹*Mohammed V University, Faculty of Science, Physics Department, Nuclear Reactor, Nuclear Security and Environment Group, Energy Centre, Rabat 10000, Morocco*

¹⁰*University of Pretoria, Department of Chemical Engineering, South Africa*

¹¹*Institute of Chemical Technology, Department of Chemical Engineering, Mumbai, 400019, India*

¹²*Technical University of Liberec, Centre for Nanomaterials, Advanced Technologies and Innovation, Studentská 1402/2, 461 17 Liberec 1, Czech Republic*

- ii. Deciphering soil bacterial diversity dynamics in sandy loam soils under varying fertilizer-derived uranium concentrations. Dennis A. Mwalongo^{1,2}, Jacob B. Lisuma³, Nils H. Haneklaus^{2,4*}, Ali Maged, Fernando P. Carvalho⁶, Nelson Mpumi², Aloyce A. Mdimi, Jerome M. Mwimanzi, Furaha M. Chuma, Thomas T. Kivevele², Kelvin M. Mtei². Research Article submitted to Elsevier - Environmental Pollution Journal (11 January 2024). Manuscript # ENVPOL-D-24-00338

¹ *Tanzania Atomic Energy Commission, Directorate of Nuclear Technology and Technical Services, P. O. Box 743, Arusha, Tanzania*

² *Nelson Mandela African Institution of Science and Technology (NM-AIST), School for Materials, Energy, Water, Environmental Science and Engineering P.O. Box 447, Arusha, Tanzania*

³*Tobacco Research Institute of Tanzania (TORITA), P.O. Box 431, Tabora, Tanzania*

⁴*Transdisciplinarity Laboratory Sustainable Mineral Resources, Universität für Weiterbildung Krems, Austria*

⁵*Department of Science and Laboratory Technology, Dar es Salaam Institute of Technology (DIT), P.O Box 2958, Dar es Salaam, Tanzania*

⁶*Laboratório de Protecção e Segurança Radiológica, Instituto Superior Técnico/Campus Tecnológico Nuclear, Universidade de Lisboa, Lisboa, Portugal. ORCID Nr 0000-0002-6639-6138*

11 Major Meetings, Seminars, Conferences and Workshops Attended

Participated in webinar working group organized by Food and Agriculture Organization (FAO) through International Network on Soil Pollution (INSOP) on remediation of polluted soils: January 17, 2024 at 14:00 – 16:00 CET.

Participated in the stakeholders meeting at Sokoine University of Agriculture (SUA) Morogoro in reviewing existing and developing new

curricula to ensure relevance and alignment with the job market under the Higher Education for Economic Transformation (HEET) project, in partnership with the Government of the Republic of Tanzania and the World Bank. Stakeholders meeting held on January 4, 2024, at Sokoine University of Agriculture Edward Moringe Campus, Institute of Continuing Education (ICE), Giraffe Hal.

Participated in webinar working group meeting organized by Food and Agriculture Organization (FAO) between International Network on Soil Pollution (INSOP) and Food Quality working group meeting on farmers training and soil pollution indicators in the One Health approach: 14 December 2023 at 12:00 – 14:00 CET, Zoom platform

Participated in webinar working group meeting organized by Food and Agriculture Organization (FAO) between International Network on Soil Pollution (INSOP) and Global Soil Laboratory Network (GLOSOLAN) and INSOILFER on SOPs for pesticides and soil pollutant threshold values: 16 November 2023 at 12:00 – 14:00 CET, Zoom platform

Attended and participated Agronomy & Leaf Integrity and Phytopathology & Genetics Conference (AP2023) at The Pyramid Grand Oasis Hotel in Cancun, Mexico, organized by Cooperation Centre for Scientific Research Relative to Tobacco (CORESTA) 15-19 October 2023

Participated in webinar meeting organized by Food and Agriculture Organization (FAO) of the United Nations on Global Symposium on Soils and Water; a source of life: 02-05 October- 2023 at 14:00 – 17:00 EAT, Zoom platform

Attended and participated Training of Strategic Leadership and creating High Performance Team organized by Uongozi Institute at St. Gasper Hotel, Dodoma 09-11 March 2023

Participated in webinar joint meeting between International Network on Soil Pollution (INSOP) and International Network on Fertilizer Analysis (INFA) on Fertilizer Quality Assessment Agenda: 28 February 2023 at 11:00 – 13:00 CET, Zoom platform

Participated in webinar 3RD Meeting of the International Network on Fertilizer Analysis (INFA) on 24 – 25 October 2022 at 03 - 06 pm EAT

Claim Comprehension and intention Study for JUUL E-cigarette Products: Findings and CROM-Related Measurement on 24 May 2022 starting at 3:00 – 4:30 EAT

Participated to the launching of the International Network on Soil Pollution (INSOP) on 22 April 2022 starting at 12:00 – 15:00 CET

Participated to the Global Survey on Soil Biodiversity as part of the International Network on Soil Biodiversity (NETSOB) activities, aiming to provide essential information that will lay the groundwork for the establishment of a Global Soil Biodiversity Observatory (GLOSOB). Date 15 March 2022 Starting at 11:26:47 AM to 1:20:08 PM

COMESA Business Council (CBC) Agro-Industry Workgroup Meeting - 14th July 2021, Webinar online.

Tobacco Workgroup Meeting, “Business perspectives on addressing illicit trade in tobacco products for the COMESA region” Dec 2, 2020 Webinar online.

2021 International Conference on Agricultural and Food Science (5th ICAFS 2021) - October 28-30, 2021, Webinar online. Presenting paper on “Nicotine release at the tobacco rhizosphere and their adsorption capacities in different soil textures”.

Tobacco Workgroup Meeting, “Business perspectives on addressing illicit trade in tobacco products for the COMESA region” at Harare, Pretoria on 02nd Dec 2020

Research and Development Institutions on research ethics and national research management procedures (COSTECH), at ICE, Morogoro, Tanzania on 01st November 2019.

Identifying and Prioritizing Policies for Engaging African Smallholder Farmers in Agricultural Trade with China” (ESRF), at Morena Hotel, Dodoma, Tanzania on 29th – 30th August 2019.

Promoting Climate Finance Opportunities to Support Climate Smart Agriculture (CSA) through National Determined Contributions (NDCs), (TARI) at Fantassy Village Hotel, Dodoma, Tanzania on 20-21 May 2019.

Socio-Economic impact of the Tobacco farming activities in Eastern and Southern Africa, (COMESA) on 7-8th November 2018 at Protea Marriot – Cairo Hotel, Plot 11A, Cairo road, Lusaka, Zambia

Managing Global Resources for a Secure Future’ organized by the American Society of Agronomy, Crop Science Society of America and Soil Science Society of America (ASA, CSSA, SSSA) from 22-25 October 2017 in Tampa, FL USA.

Managing Human Resources and Modalities to Increase Delivery Rate for ILO IPEC Staff. July 12-16, 2010. International Training Centre, Turin, Italy.

ILO IPEC Staff Training and Strategy. April 19-23, 2010. International Training Centre, Turin, Italy.

ILO IPEC Planning Workshop for the Design of Project Documents Related to South-South Cooperation Initiative to Combat Child Labour in Africa (Angola, Mozambique, Guinea Bissau, Cape Verde, Sao Tome and Principe, Tanzania and Ghana) May 24-25, 2010. San Marco Hotel, Brasilia, Brazil.

Information, Training and Knowledge Management Workshop “Delivering The Global Job Pact and Managing For The Results as One ILO” For Chief Technical Advisors and National Project Coordinators in Africa. Feb 15-17, 2010 Nairobi Safari Club Hotel, Nairobi, Kenya.

ECLT- Geneva Partners (Asia & Africa) Workshop on Child Labour Elimination in Agriculture. Dec 01-05, 2008, Cartigny Hotel, Geneva, Switzerland.

Scientific Conference on Environmental sustainability (NEMC). Sept 28-30, 2004. White Sands Hotel, Dar es Salaam, Tanzania.

12 Major training courses attended

Guiding Principles used to establish the National Post-doctoral research Framework. Kibaha, Pwani Tanzania: 06-10 March 2016

Opportunities for Boosting Productivity Through Proper Use of Fertilizer in Africa – Omnia Group (PTY) Ltd Salsoburg, Johannesburg South Africa: 12-19.12.2015

Financing Agriculture and Agribusiness in Tanzania: Challenges & Opportunities: 24-25.11.2014

Invention of Renewable Energy Source – Nyanza Province, Suna-Migori, Kenya: 22-29.08, 2012

Improving Agriculture Through ‘GIS’ – Protea Hotels, Lusaka, Zambia: 20-30.05.2012

13. Grants awarded

TZS 102,400,000 for Evaluation of Polyhalite Fertilizer in Tanzania project, 2014-2017

TZS 73,346,540 for Soil Fertility Evaluation in western and northern tobacco growing regions, 2015-2016

TZS 60,500,650 for Tobacco Production Baseline Survey in Serengeti, Tarime and Rorya Districts, Mara Region, 2011-2012

TZS 4,500,000 for Evaluation of Volcanic Ash Soils Fertility status in Mpangala, Makete Iringa, 2000-2003

TZS 2,850,250 for Evaluation of Farm Yard Manure on the soil pH, Cation Exchange Capacities, Exchangeable Bases on Acid Soils from the Sokoine University of Agriculture (SUA) Farm, Morogoro, 1998-1999.

14. International exposure related to the professional work:

- Based on the major profession experiences at work Dr. Lisuma visited the following countries Uganda, Kenya, Rwanda, Malawi, Zambia, Zimbabwe, South Africa, Dubai, Bangkok, China, Italy, Switzerland, Mexico, United States of America and Brazil
- Participated to the Global Survey on Soil Biodiversity as part of the International Network on Soil Biodiversity (NETSOB) activities, aiming to provide essential information that will lay the groundwork for the establishment of a Global Soil Biodiversity Observatory (GLOSOB). Date 15 March 2022 Starting at 11:26:47 AM to 1:20:08 PM
- Participated to the launching of the International Network on Soil Pollution (INSOP) on 22 April 2022 starting at 12:00 – 15:00 CET
- Guest Editor on **Special Issue Topic "Interaction of Metabolites Released to the Rhizosphere and Soil Nutrients Absorption by Plant Roots"** to the *Journal of Modern Agriculture and Biotechnology* Special Issue (ISSN 2788-810X) <https://www.innovationforever.com/news-detail/1501834321812688897>.
- Participated and presented research findings on ‘Uranium in phosphate rocks and mineral fertilizers applied in agricultural soils in East Africa: problems and potential solutions’ to the INSOP-INFA Joint Meeting on Fertilizer Quality Assessment Agenda 12:00-12:15 CET: 28 February 2023. Organized by FAO.
- Participated to the online meeting on **INSOP-INFA workshop on development of SOPs for cadmium in mineral fertilizers** Organized by FAO, 14:00-16:00 EAT, 01 June 2023.

15. Supervision/assistance of students:

More than 250 students were attached to TORITA for either field practical training or field research work. Most students were under the head of departments belonging to ‘Research’ and ‘Training and Technology Transfer’ departments. However, some students, based on their nature of field practical or research work as well recommendations from their institutes, were supervised by Dr. Lisuma as listed below;

Name	Course	University/Collage	Year	Area of research
Mr. Alumbwage Lwoga	Dip	TPSC, Tabora	2012	Basic Tech – IT
Ms. Elizabeth Lukwasi	Dip	TPSC, Tabora	2012	Basic Tech – IT
Mr. Erick Antony	BSc	SUA, Morogoro	2012	Agribusiness
Ms. Hogra Kitundu	Dip	LGT, Dodoma	2013	Agriculture
Ms. Rosemary Kimario	Dip	MATI, Tabora	2014	Agriculture
Mr. Abdul Marijan	Cert	MATI, Tabora	2015	Crops
Mr. Elly Maerere	Dip	MATI, Tabora	2016	Crops

Mr. Herbert Ndomba	PhD	Stellenbosch, SA	2015-16	Tobacco effect
Ms. Theophista Mangora	PhD	UDSM, Dsm	2021-22	Sust of tobacco
Mr. Robin Roussos	MSc	NC, State Univ USA	2021-22	Tobacco Agronomy

16. External Examiner:

Dr. Lisuma has been external examiner to the following universities

University	Student's name	Reg. number	Dissertation/Thesis & date	Research title
NM-AIST	Domitius M. Katatwile	M.059/T.18	MSc (March 26-April 06, 2021)	Impact of Tobacco Curing on the Environment and Socio-Economic Aspects in the Urambo District
NM-AIST	Dennis Mwalongo	P015/T.19	PhD Thesis Env Sci & Eng (2019-2024)	Investigation of Uranium Derived from Application of Phosphate Fertilizer in East Africa
NM-AIST	Faith H. Nguleni	P019/T22	PhD Dissert ICSE	Enhancing identification of virginia flue-cured tobacco leaf grade marks through deep learning and transfer learning approach with mobile application integration
NM-AIST	Seuri S. Kilakoi	P035/T22	PhD Sust Energy in Sc & Eng	Simulation and experimental performance evaluation of an innovative photovoltaic and thermal (PV-T) dryer for drying tobacco

17. Manuscript reviewer:

Dr. Lisuma has reviewed manuscript from various journals as listed below

Journal name	Title of the Manuscript	Date
Tanzania Journal of Agricultural Sciences (TAJAS)	Effect of Crop Age and Storage Duration on Regeneration Potential of Sweetpotato Vines in Drier Areas of Tanzania (TAJAS-558)	April 2021

Tanzania Journal of Agricultural Sciences (TAJAS)	Perceived Ineffectiveness of Insecticides Used to Control Cotton Pests in the Western Cotton Growing Areas of Tanzania (TAJAS-622)	May 2021
Journal of Soil Science and Plant Nutrition (JSSP), Springer	Bacterial community structure in tobacco rhizosphere soil at different altitudes (JSSP-D-21-00691)	June 2021
Agronomy Research (AR),	Rooting and Adaptation of Solanum tuberosum L. under Ex Vitro Conditions after Exposure to Different Sucrose Concentrations in the In Vitro Nutrient Medium (AR-2021-230)	July 2021
Asian Plant Research Journal (APRJ)	Performance of Tef [<i>Eragrostis tef</i> (Zucc.) Trotter] varieties influenced by blended NPSZnB fertilizer rates in Haro Limmu district (APRJ-72809)	Aug 2021
International Journal of Vegetable Science (IJV)	Influence of fertilization on growth and yield of Onion under semi-arid conditions (WIJV-2021-0052)	Aug 2021
Agronomy Research (AR)	Phosphate solubilization potential of indigenous rhizosphere fungi and shelf-life studies of their biofertilizer formulations (AR-2021-261)	Sep 2021
Journal of Modern Agriculture and Biotechnology (JMAB)	Efficacy of Different Solvents on the Extraction Process of Antioxidant and Potential Compounds in Alpinia Galanga L. from Indonesia	Dec 2021
International Journal of Environmental Science and Technology (IJEST)	Features of technology need for climate change and influencing factors: Evidence from 51 developing countries JEST-D-21-03963	Dec 2021
Agronomy (MDPI)	Effects of Different Organic Fertilizers on Sweet Potato Growth and Rhizosphere Soil Properties in Newly Reclaimed Land (Agronomy 1750607)	May 2022
Agronomy Research (AR)	Effectiveness of shading and split fertilizer application on increasing growth of purple pakchoy (<i>Brassica rapa</i> var. <i>Chinensis</i>) in urban ecosystem AR-2022-88	June 2022
Life (MDPI)	Diversity of bacteria present in various agarwood species, based on Illumina sequencing technology Life 1797344	July 2022
Agronomy (MDPI)	Effects of Deep Tillage and Nitrogen Reduction on Growth and Economic Benefit of Tobacco. Agronomy 1824769	Aug 2022
Qeios	Barriers to quitting smoking – a survey among 1000 adult cigarette smokers in	Aug 2022

	Germany	
Sustainability (MDPI)	Potassium determined sugar beet yield and sugar content 1903433	Sep 2022
Agronomy (MDPI)	Effects of different organic materials returning to field on eukaryotic microorganism diversity in semi-arid area of North China. Agronomy 1988241	Oct 2022
Agronomy Research (AR)	Assessment of the relation between the adaptive potential of oilseed radish varieties (<i>Raphanus sativus</i> l. var. <i>oleiformis</i> Pers.) and chlorophyll fluorescence induction parameters AR-2022-145	Oct 2022
Soilsystems (MDPI)	Soil diagnostic horizons and land use relationships: an analysis in the context of Jenny's equation. Soilsystems 2018051	Nov 2022
Land (MDPI)	Influence of slope-aspect and land use on soil erodibility factor and fractal dimension of soil particles size as indexes of land degradation 2222645	Feb 2023
Journal of Modern Agriculture and Biotechnology (JMAB)	Genetic analysis of maize hybrids using line \times tester method	May 2023
Journal of Modern Agriculture and Biotechnology (JMAB)	The effect of the application method of iron, zinc and manganese low-use elements on the yield and quality of barley grain. JMAB20230105	May 2023
Forests (MDPI)	Seedling growth dynamics of four widely grown timber species of Southern China under varying N forms and applications. 2437220	June 2023
Sustainability (MDPI)	Manuscript Title: Potassium determined sugar beet yield and sugar content. 1903433	Sep 2023
Agronomy Research (AR)	Ecological principles of managing cyst-forming nematode populations in modern agroecosystems. AR-2023-185	Oct 2023
Agronomy Research (AR)	Taxonomic structure of the soil and rhizosphere microbiome of agricultural crops by the action of biofertilizers recycle spent mushroom substrate. AR-2023-189	Nov 2023
Agronomy (MDPI)	Effects of Organic Fermentation Substitution for Chemical Fermentation on Microbial Diversity and Community Structure of Pineapple Rhizosphere Soil. 2751665	Nov 2023

Agriculture (MDPI)	Effect of Foliar Fertilization with Micronutrients on Nodulation and Physiological Properties of Common Soybean Plants. 2765277	Jan 2024
Agronomy (MDPI)	Tobacco/Salvia Miltiorrhiza Intercropping system improves the soil quality and Increase Total production value. 2843955	Feb 2024
International Journal of Environmental Research (IJER)	Biogenic Selenium synthesis by extracellular extracts of bacterial isolates from coastal soils: Mechanism optimization, characterization and application. IJER-D-23-01379	Mar 2024

18. Membership to the Board of Directors:

Dr. Lisuma has been invited, served to several boards with a vital role as indicated below;

Board's name	Membership	Role	Duration
Association of Tanzania Tobacco Traders (ATTT)	Member	Representing CSR matters	April 2004 - March 2007
Tanzania Tobacco Co-operative Apex (TTCA)	Special invitee	To provide technical aspect on performance of the active ingredient's chemicals and list of approved agrochemicals companies	2012-2014
Tanzania Fertilizer Regulatory Authority (TFRA)	Special invitee	To provide technical aspect on Minjingu fertilizer performance in tobacco	Dec 2018
Tobacco Research Institute of Tanzania (TORITA)	Member	Secretary	July 2019 - June 2022
Tanzania Agricultural Research Institute (TARI)	Member	Auditing, Monitoring and Evaluation Committee (AMEC) member	May 2018- May 2021

19. Membership to the Editorial Board of Journals:

Dr. Lisuma is appointed as Editorial Board of Journal of Modern Agriculture and Biotechnology (JMAB) with effective from August 2021 to July 2024.

20. International Health Compliance:

Dr. Jacob Bulenga Lisuma fully vaccinated on June 24, 2022 at Benjamini Mkapa Referral Hospital in Dodoma City with IVD00004269608 and ID no. TAE462238

21. Referees:

Prof. Patrick Ndakidemi

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I declare that all information provided above are correct

Signed by:



Dr. Jacob B. Lisuma

Date: 20.03.2024