

Curriculum Vitae

MSc. Yves Theoneste Murindangabo, PhD.

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Personal information

- Date of birth: June 20, 1988
- Place of birth: Rwanda
- Citizenship: Rwandan

Education

Degree	Field	Institution	Year
Ph.D.	Agroecology	University of South Bohemia, Czech Republic	2024
M.Sc.	Agriculture	Kyungpook National University, Republic of Korea	2019
B.Sc. (Hons.)	Agronomy	University of Rwanda, Rwanda	2014

Professional Experience

Employer	Position	Dates
Institute of Soil Biology and Biogeochemistry, Biology Centre, Czech Academy of Sciences	Postdoctoral researcher	1/1/2025- To date
Charles University	Researcher	1/1/2025- To date
Institute of Soil Biology and Biogeochemistry, Biology Centre, Czech Academy of Sciences	Research and Development	1/4/2024 -30/12/2024
Government of Rwanda, Gicumbi District	Director of Agriculture and Natural Resources Unit	2015 - 2020
University of Technology and Arts, Byumba, Rwanda	Adjunct Assistant Lecturer	2019 - 2020
Obnov Less Company, Ceske Budejovice	Forest Maintenance and Restoration	2020-2023
Laterite Rwanda LTD	Surveyor	2014 - 2015
PROXIFRESH RWANDA Ltd	Farm Manager	2014

Scientific Activities

Research and Teaching Experience

- University of Technology and Arts, Byumba, Rwanda (Soil, forestry and agroforestry- 2019-2020)
- University of South Bohemia in České Budějovice, Department of Agroecosystems (Soil, plant nutrition, agrotechnology 2020-2024)

Conferences

- Over the Horizon for mutual acquiescence, University of South Bohemia in Ceske Budejovice, 2023, 2024, Czech Republic
- European Geosciences Union (EGU) General Assembly 2025, Vienna – Austria

Stays abroad

- 2022: Laboratory of Soil Science, the Institute of Organic Farming, University of Natural Resources and Life Sciences, Vienna, Austria (2 months)
- 2023: Laboratory of Soil Science, Agriculture and Forest University, Chitwan, Nepal (2 months)

Major Projects

- LIFE-IP: N2K Revisited, project number LIFE17 IPE/CZ/000005 - supported by the European Union through the LIFE Programme under the Integrated LIFE Project for the Natura 2000 Network in the Czech Republic (2019-2026): Contributing to advancing effective Natura 2000 site management in the Czech Republic, focusing on biodiversity conservation, ecosystem services assessment, and stakeholder engagement.
- Grant Agency of the University of South Bohemia 059/2019/Z – Environmentally friendly technologies for sustainable agricultural development (2019–2021): I have been a member of this project's team since 2020, working towards the development and implementation of sustainable agricultural practices.

- Grant Agency of the University of South Bohemia 085/2022/Z – Sustainable and innovative plant and animal production: As a member of this project (2022–2024), I have had the opportunity to contribute to and benefit from innovative approaches in sustainable agriculture.
- National Agency for Agricultural Research QK1910046 – Common wheat cultivation in mixed cultures with the aim to optimize the soil nutrition status, erosion protection, stabilization of yield and production quality (2019–2023): I joined this project in 2020, contributing to research efforts aimed at optimizing soil health and improving crop production.
- National Agency for Agricultural Research QK22010255 – Intensification of legumes production in organic farming by biological treatment with the aim of improvement of plant health status (2022–2025): My involvement in this project from 2022 to 2024 has enriched my research and contributed to the advancement of organic farming methods.

Selected Results

Authored over 25 scientific papers, including 18 papers and 1 book chapter indexed in the Web of Science Core Collection, cited 162 times (H-index of 8) and 286 in Google scholar (H-index of 10). Active researcher in soil ecology, carbon dynamics, and biogeochemistry.

Murindangabo, Y.T., et al. 2023. *Synergistic interplay of management practices and environmental factors in shaping grassland soil carbon stocks: Insights into the effects of fertilization, mowing, burning, and grazing*. Journal of Environmental Management, 344: 118325.

Murindangabo, Y.T., et al. 2023. *Comparative analysis of soil organic matter fractions, lability, stability ratios, and carbon management index in various land use types*. Carbon Balance and Management, 18: 7.

Murindangabo, Y.T., et al. 2022. *Grassland management effects on soil carbon stocks across Central Europe*. EGU 2025.

Murindangabo, Y.T., et al. 2023. *Phosphate-amended sewage sludge biochar: Impacts on soil carbon dynamics and plant growth*. Chemosphere, 322: 138178.

Murindangabo, Y.T., Kopecký, M., Perna, K., Hoang, T.N., et al. 2023. *Relevance of entomopathogenic fungi in soil-plant systems*. Plant and Soil, 489: 145–162.

Murindangabo, Y.T., Kopecký, M., Perna, K., Kavková, M., et al. 2023. *Prominent use of lactic acid bacteria in soil-plant systems*. Applied Soil Ecology, 187: 104841.

Kopecký, M., Kolář, L., Perna, K., Murindangabo, Y.T., et al. 2021. *Fractionation of soil organic matter into labile and stable fractions*. Agronomy, 11(12): 2498.

Baloch, S.B., Ali, S., Bernas, J., Murindangabo, Y.T., et al. 2024. *Wood ash application for crop production, amelioration of soil acidity and contaminated environments*. Chemosphere, 357: 141865.

Experience with Applied Research Projects

Yves Theoneste Murindangabo has long-term collaboration with private companies, government agencies, and NGOs to address environmental problems and practical applications of soil ecology. He has made significant contributions to soil science, agroecology, and ecosystem research, focusing on soil organic matter (SOM) dynamics, soil health, and the impacts of anthropogenic activities on soil ecosystems. His work has advanced an understanding of SOM accumulation, composition, and turnover, particularly in the context of land use changes and ecosystem disturbances, providing insights into carbon sequestration and soil health. Murindangabo has investigated the role of SOM in ecosystem resilience during succession and in response to global environmental changes, offering valuable data for predicting soil carbon storage under different land management practices. His research on soil-plant-environment interactions has highlighted the importance of sustainable agriculture in maintaining soil fertility and mitigating climate change impacts.

Methodologically, he has developed expertise in soil sampling, physical and chemical fractionation, and data analysis, contributing to improved models for predicting soil carbon storage and turnover, particularly the fractionation of soil organic matter into labile and stable fractions. His interdisciplinary approach, integrating agroecology, soil science, and ecosystem studies, has bridged gaps between disciplines, offering a holistic understanding of soil-plant-environment interactions and addressing complex environmental challenges such as climate change and land degradation. Specific findings include demonstrating how land use practices influence soil carbon storage, elucidating the role of microbial communities in SOM decomposition, and identifying factors that enhance ecosystem resilience.