

**Curriculum Vitae**  
 Ramadhan Ngatoluwa  
 P.O Box 10619  
 Arusha, Tanzania

1. **Name :** Ramadhan Ngatoluwa
2. **Profession:** Soil Science and Land Management Scientist
3. **Nationality** Tanzanian
4. **Date of birth:** 15.02.1961
5. **Academic Qualification**

Institution	Date Obtained	Degree(s) or Diploma(s) obtained
Sokoine University of Agriculture	1999-2001	M.Sc Soil Science and Land Management
Univ. Guelph, Canada	1988-1993	B.Sc Land Resource Management & Soil Science

6. **Professional Courses Attended**

Institution	Date Obtained	Course attended
University of Ghent, Belgium	1995	The Use of Stable and Radioactive Materials in Soil Fertility and Environmental Studies
International Atomic Energy Agency (IAEA), Vienna Austria	2008	Use of Nuclear and Related Techniques to Measure Storage, Flows and Balance of Water in Cropping Systems.
Stanford University, CA, USA	2009	Economic Tools for Conservation

7. **Employment Records/Responsibilities**

<p><b>Coordinator of Research and Innovation, TARI Selian Centre</b></p> <ul style="list-style-type: none"> <li>● As the head of the Research and Innovation Department my main role was to lead and coordinate research at the Centre as guided by the TARI Strategic Plan.</li> <li>● I provided overall leadership to 35 researchers and 25 research assistants to carry out research programs on cereals and legumes (crop research), natural resource management, and socio-economics and market research.</li> <li>● I coordinated the development of research proposals for funding for various partners.</li> </ul>	2018-2020
<p><b>Acting Director &amp; Zonal Research Coordinator</b> for Northern Zone (Arusha, Kilimanjaro, Manyara and Usambara Mountains)</p> <ul style="list-style-type: none"> <li>● As Acting Director, I provided overall leadership for research administration, guidance and control in the Northern Zone of Tanzania.</li> </ul>	May 2018 –August 2018
<p><b>Zonal Research Coordinator for Northern Zone</b></p> <ul style="list-style-type: none"> <li>● I provided overall leadership to 40 researchers and 20 research assistants to carry out research on cereals and legumes (crop research), natural resource management, socio-economics, and market research.</li> </ul>	Jan 2020-August 2020

<p><b>Head of Department, Natural Resource Management</b></p> <ul style="list-style-type: none"> <li>● As the Head of the Department I was responsible for the coordination of soil and water conservation agenda focusing on promotion of Integrated Soil Fertility Management.</li> <li>● I coordinated a research project on Climate Change and Food Security (CCAFS) in the highly populated highlands of Usambara Mountains in Lushoto District.</li> <li>● I coordinated adoption of Climate Smart Agriculture, through adoption of Conservation Agriculture as a cropping strategy for mitigating Climate change and Variability.</li> </ul>	2011-2020
<p><b>Executive Director, Tanzania Land Conservation Trust (TLCT).</b> As the chief executive officer of TLCT, my core responsibility was to provide overall leadership of the Trust and Manyara Ranch by adhering to the following key areas.</p> <ul style="list-style-type: none"> <li>● To ensure that Manyara Ranch is managed efficiently, professionally, ethically, and in full compliance with TLCT's mission, mandate, and the laws of Tanzania, and in coordination and cooperation with the African Wildlife Fund (AWF).</li> <li>● To ensure that Manyara Ranch is managed in a manner that is compatible with conservation enterprises, such as tourism development.</li> <li>● To develop an annual work plan and annual budget in advance of each fiscal year and develop a funding proposal for AWF for annual activities.</li> <li>● To ensure continuous consultation and work closely with the AWF Heartland Director and the AWF team in Arusha.</li> <li>● To monitor the Manyara Ranch School to ensure that it is not neglected and provide routine and regular reports on the school facilities and operations to AWF.</li> <li>● To provide support to the AWF Enterprise Team as needed in its scoping and development of enterprises for the Ranch and manage the Ranch in coordination with enterprise developments.</li> <li>● To call and coordinate TLCT's board meetings</li> <li>● To ensure the growth and development of the TLCT Board of Trustees.</li> </ul>	2008-2011

### 8. Research Positions held

Principal Agricultural Research Officer, Soil Research & Natural Resource Management Research program	2006-To date
Senior Research Officer, Soil Management & Natural Resource Management Research	1995-2006
Research Officer, Soil Management Research	1993-1995

### 9. Research Project leadership:

Dates	Project, Country, Position and Description of works
2012-2019	<p><b>Project: Climate Change Agriculture &amp; Food Security (CCAFS):</b> Mapping Risks and Opportunities for Targeting Appropriate Crop and Livestock Adaptation Strategies in East Africa</p> <p><b>Activity Title:</b> <b>Evaluation of promising technologies for enhancing farmer capacity to adapt to climate change in the CCAFS Benchmark site in Lushoto</b></p> <ul style="list-style-type: none"> <li>● As in-charge of the Soils and Land Resource component of the project, I provided technical backstopping on soil fertility management and soil and water conservation initiatives in the project area. Through this initiative all farms were protected against soil erosion, tree nurseries were established in ten villages. Community members were trained in natural resource management.</li> <li>● As part of the project I participated in assessing the adoption and impacts of soil and water conservation (SWC) practices by smallholder farmers in Lushoto District in northern Tanzania, using the propensity score-matching approach. The results suggest that policies designed to stimulate adoption of SWC practices should be promoted. Improvements in agricultural extension service, farmer groups/organizations, and agricultural training access may serve as good strategies for promoting the adoption of SWC practices in Tanzania.</li> <li>● Facilitated introduction and initiation of local financial institutions aimed at enabling the community to have access to financial institutions to complement their efforts in managing their natural resources.</li> </ul>
2012-2016	<p><b>Project: Promotion of Integrated Soil Fertility Management (ISFM) in Northern Tanzania</b></p> <p>I coordinated the Integrated Soil Fertility Management project which aims at improving productivity in Arusha, Kilimanjaro, and Manyara regions through the promotion of combined inorganic and organic fertilizers. Reducing the use of inorganic fertilizers was aimed at minimizing the emission of nitrous gas from nitrogen based fertilizers to the atmosphere.</p>
2014-2018	<p><b>Project: Regional Conservation Agriculture:</b></p> <p>As a lead scientist I provided technical leadership and coordinated on-station and in-field research to confirm the Climate Smart benefits expected to arise from the adoption of Conservation Farming (CF) by programme beneficiaries. Conservation Farming (CF) and Conservation Agriculture (CA) are widely acknowledged as technologies that offer all farmers the opportunity to increase their productivity, adapt more effectively to adverse climatic conditions, improve the fertility of their soils, and minimize negative impacts of agriculture on the environment.</p>

Dates	Project, Country, Position and Description of works
2014-2018	<p><b>Project: Sustainable Intensification of Maize-Legume Cropping Systems for Food Security in Eastern and Southern Africa (SIMLESA)</b></p> <ul style="list-style-type: none"> <li>● As the head of the agronomy aspects of the project in Tanzania, I provided research leadership for on On-farm exploratory trials to verify co-identified promising Conservation Agriculture based intensification options in terms of productivity, yield stability/risk, profitability, and sustainability in Arusha, Manyara, and Morogoro regions.</li> <li>● The main objective of the agronomy aspect of this project was to test and adapt productive, CA-based intensification options for sustainable smallholder maize-legume production systems. The project improved productivity, contributed significantly to soil conservation, and improved crop production-livestock interaction in drought prone areas.</li> </ul>

#### 10. Consultancies and short term assignments:

Dates	Employer and Position
2011 - 2016	<p><b>MTL Consulting Company</b> <b><u>DUTIES;</u></b></p> <ul style="list-style-type: none"> <li>● To conduct a soil survey of the Kibo Coal Project and its surroundings, to review and collect information/data on soils with the aim of understanding the soil characteristics and functions. Contributed to ESIA for proposed KIBO MBEYA Coal to power project located in Mbeya Rural.</li> <li>● To conduct soil survey of the Nyanzaga Gold Project and its surroundings, to review and collect information/data on soils with the aim of understanding the soil characteristics and functions.</li> <li>● Characterization, description, and mapping soils of Niobium Mining Project in Mbeya Region. Contributed to the Environmental Impact Assessment of the Panda Hill Mining Site.</li> <li>● Soil assessment around the Geita Gold Mining area: defining project relevant issues, outlining likely impacts of the disturbed areas, and any other considerations that were deemed necessary in executing the project.</li> <li>● Characterization, description and mapping soils of Wigu Hills Rare Earth Metal Mining Site, Morogoro. Contributed to the Environmental Impact Assessment of the Wigu Hills Rare Earth Metal Mining Site.</li> <li>● Survey the soil parameters for the Tulawaka Gold Mine (on the project area), for the environmental impact assessment covering the TSF uplift project areas which were to be disturbed: contributed to the environmental and social impact assessment for uplift at Tulawaka gold mine.</li> </ul>

2007 - 2010	<p><b>Golder Associates Ltd, Canada</b></p> <p><b><u>DUTIES:</u></b></p> <ul style="list-style-type: none"> <li>• Characterization and evaluation of soils and their agriculture suitability for potential resettlement areas from a livelihood perspective. Kabanga Nickel Mining Site, Ngara, Kagera Region.</li> <li>• Characterization, description and mapping of soils within proposed sand pit areas of the Kabanga Nickel Mining Site, Ngara, Kagera. Contributed to the Environmental Impact Assessment of the Kabanga Nickel Mining activities.</li> <li>• Characterization and evaluation of soils and their agriculture suitability for potential resettlement areas from a livelihood perspective.</li> <li>• Soil classification, Land Use Characterization, and Agricultural Suitability Assessment of the Kabanga Nickel Mining site, Ngara, Kagera. Contributed to the Environmental Impact Assessment of the Kabanga Nickel Mining activities.</li> </ul>
2007	<p><b>Zahara tours Ltd.</b></p> <p><b><u>DUTIES:</u></b></p> <ul style="list-style-type: none"> <li>• Preliminary Environmental Impact Assessment (PEIA) of the Highview Hotel, Karatu.</li> </ul>
2006	<p><b>Field Masters Ltd/TCLC</b></p> <p><b><u>DUTIES:</u></b></p> <ul style="list-style-type: none"> <li>• Reconnaissance assessment of soils, land forms, vegetation, and climate for the production of biodiesel crops.</li> </ul>
2006	<p><b>Kabare Real Estate and Land Developers Ltd; Colour Gem Ltd; Belmont Tanzania Ltd; and Genetic Technologies Tanzania Ltd. Arusha, Tanzania</b></p> <p><b><u>DUTIES:</u></b></p> <ul style="list-style-type: none"> <li>• Soil survey report of Kilombero farm, South of Arusha town.</li> </ul>
2005	<p><b><u>Norconsult (Tanzania) Limited</u></b></p> <p><b><u>DUTIES:</u></b></p> <ul style="list-style-type: none"> <li>• Soils and Land Use Characterization of the Buzwagi Mining site, Kahama, Shinyanga. Contributed to the Environmental Impact Assessment of the Buzwagi Mining activities in Kahama.</li> </ul>
2004	<p><b>African Conservation Tillage Network (ACT)</b></p> <p><b><u>DUTIES:</u></b></p> <ul style="list-style-type: none"> <li>• Workshop facilitator</li> </ul>
2003 - 2005	<p><b>ORGUT/LAMP</b></p> <p><b><u>DUTIES:</u></b></p> <ul style="list-style-type: none"> <li>• Provided advisory services in the development of a farmer run soil fertility program to address soil fertility problems in the LAMP project area (Singida, Babati, Kiteto, and Simanjiro districts)</li> <li>• Provided technical services for soil fertility evaluation, soil fertility data analysis, and interpretation for Babati and Singida districts</li> </ul>
2000	<p><b>MS-TCDC-Arusha</b></p> <p><b><u>DUTIES:</u></b></p> <p><b>Program officers Training course:</b></p> <ul style="list-style-type: none"> <li>• Environmental component.</li> </ul>

2000	<b>Local Perspective &amp; ARUP &amp; Partners (UK)</b> <b><u>DUTIES:</u></b> <ul style="list-style-type: none"> <li>• Soils, Land Use, &amp; Agricultural characterization of the Tulawaka (Pangea Minerals) Mining site Biharamuro, Kagera.</li> </ul>
1999	<b>SPK Consultancy, South Africa &amp; WEGS Consultancy Arusha</b> <b><u>DUTIES:</u></b> <ul style="list-style-type: none"> <li>• Soils and Land Use Characterization of the Ashanti Mining site, Geita, Mwanza. Contributed to the Environmental Impact Assessment of the Ashanti Mining activities in Geita.</li> </ul>
1998	<b>WEGS consultants Limited Arusha</b> <b><u>DUTIES:</u></b> <ul style="list-style-type: none"> <li>• Contributed to the Environmental Impact Assessment of the Bulyankulu Gold Mining Project.</li> </ul>
1997	<b>Water Source (Tanzania) Limited &amp; Water and Environment Tanzania Limited</b> <b><u>DUTIES:</u></b> <ul style="list-style-type: none"> <li>• Land Use Advisory Services. Part of the water sources assessment for Simanjiro and Kiteto districts.</li> </ul>
1995 & 1997	<b>Sokoine University of Agriculture</b> <b><u>DUTIES:</u></b> <ul style="list-style-type: none"> <li>• Evaluation of Suitability of Rain Water Harvesting for crop production in Western Pare Lowlands.</li> <li>• Soil Characterization at the Kisangara Rain Water Harvesting (RWH) experiment site. A joint project of Sokoine University of Agriculture (SUA) and the University of Newcastle Upon Tyne, United Kingdom. Funded by ODA. BACAS, and Sokoine University of Agriculture. Funded by ODA.</li> </ul>
1995 - 1996	<b>Norconsult (Tanzania) Limited</b> <b><u>DUTIES:</u></b> <ul style="list-style-type: none"> <li>• Characterization of Land Use in and around Ngorongoro Conservation Area (NCA). Contributed to the Environmental Impact Assessment of the proposed Makuyuni-Musoma Road.</li> <li>• Assisted the study to characterize the economic pattern along the proposed Makuyuni-Lamadi road. Part of the Environmental Impact Assessment of the proposed Makuyuni-Musoma road</li> </ul>

#### 11. Membership of Professional Societies:

- Soil Science Society of East Africa

#### 12. Language skills:

Language	Reading	Speaking	Writing
English	Fluent	Fluent	Fluent
Swahili	Fluent	Fluent	Fluent

#### 13. Specific country experience:

Country	Dates(years):
Tanzania	1993-To date Working experience
Canada	1988-1993 As student

#### 14. Others (selected publications):

- Sariah, J, Florentine, L. Mmbando, F., Makoye, L, Ngatoluwa R, Titti, U. 2020. Enhancing agricultural resilience and sustainability in Eastern and Southern Africa: Key findings and recommendations for Tanzania. SIMLESA Working Paper.
- Rusinamhodzi L, Njeru L, Sariah J, Ngatoluwa R, and Langwen P. (2020) Tillage effect on agronomic efficiency of nitrogen under rain-fed conditions of Tanzania. SIMLESA Working Paper.
- Mmbando, F; Ngatoluwa R, Mbapila, S., Sayula, G., Mollel, S., Mhagama, B., Gregory, T. (2020). The Adoption and Impact of Soil and Water Conservation practices in Lushoto District: A Propensity Score-Matching Approach. Tanzania Agricultural Research Institute (TARI)-Selian Centre
- Rusinamhodzi L, Makoko B, Ngatoluwa R,. (2016) Short-term agronomic efficiency of nitrogen (N) in contrasting cropping systems in Tanzania. Proceeding of the 2016 International Nitrogen Initiative Conference, "Solutions to improve nitrogen use efficiency for the world", 4-8, Melbourne, Australia. [www.ini2016.com](http://www.ini2016.com)
- Recha, J.W; Radeny, M.A; Kinyangi J; Kimeli, P; Atokos, V; Lyamchai, C; Ngatoluwa R; Sayula G. Climate Smart Villages and progress in Achieving Food Security in Lushoto Tanzania; CCAFS Info Note; CGIAR Research Program on Climate Change and Food Security (CCAFS): Copenhagen, Denmark, 2015; Available online: <https://ccafs.cgiar.org/resources/publications/climate-smart-villages-and-progress-achieving-food-security> (access on 19 February 2022)
- Lyamchai, R. Ngatoluwa, T.E. Mmbaga, N.F. Massawe, N. Lema, D.C Catacutan & J. Tanui (2007). Natural Resource Management Policy and Institutional Environment in Tanzania: A Basis for Developing a Landcare Program. World Agroforestry Centre. ICRAF Working Paper no: 44 Call no: WP0098-08
- L. Lunze, P.M Kimani, R. Ngatoluwa, B. Rabary, G.O Rachier, M.M. Ungen, V. Luganza and E.E. Awad elkarim (2007). Bean Improvement for Low Soil Fertility Adaptation in Eastern and Central Africa. Advances in Integrated Soil Fertility Management in Sub-Sahara Africa: Challenges and Opportunities. Springer Netherlands.
- Ngatoluwa, R.T. (2004) Development of a farmer run Soil Fertility Program to tackle soil fertility problems in Singida, Simanjiro, Kiteto and Babati Districts. LAMP/ORGUT Report 80-319.
- Mrema J.P., Mowo J.G., Sheto M.C., Kajiru J.G., Ngatoluwa R, and Rwehumbiza F.B. (2003). Local indicator for soil fertility evaluation. Report prepared for the NRSP Project R8115, SWMRG (Soil Water Management Research Group), Sokoine University of Agriculture, Morogoro Tanzania. Report R13.
- Rwehumbiza, F.B., Mowo, J.G. and Ngatoluwa, R., 2003. Soil fertility management options. Report prepared for the NRSP Project R8115, SWMRG (Soil Water Management Research Group), Sokoine University of Agriculture, Morogoro Tanzania. Report R13.
- Ngatoluwa, R.T. (2003) Natural Resources Planning and Management. Rapid Rural Appraisal For Ng'aibara village, Karatu district.
- Ngatoluwa, R.T. Mansoor H. A.; and Lyamchai, C.J. (2001). Impact of Soil Conservation Measures on Soil Quality. National Soil Tillage Workshop, Arusha Tanzania.

Mansoor H.A.; D. Ringo; R.T. Ngatoluwa, and P. Ndakidemi, (2001). Integrated Soil Fertility Management experiences in the small scale mechanized farming. Case study in Ekenywa and Mungushi villages. In: H. Mansoor et al. (eds) The proceedings of the Integrated Soil Fertility Management in the Northern Zone of Tanzania, Held in Arusha Tanzania.

Ngatoluwa, R.T. (2001). Impact of Soil Conservation Measures on Properties and Productivity of Volcanic Soils on the Slopes of Mount Meru. M.Sc. Thesis. Sokoine University of Agriculture.

Ngatoluwa, R.T. (2001). Impact of Soil Conservation Measure on Soil Moisture Content of Volcanic Soils on the Slopes of Mount Meru. Working Paper. Selian Agricultural Research Institute.

Mansoor, H.A.; R.V. Ndoni; D.G. Tanner; P. Ndakidemi and R.T. Ngatoluwa, (2000). On-farm Evaluation of the Response of Four Wheat Varieties to Nitrogen Fertiliser in Karatu District in Northern Tanzania. In the proceedings of the Eleventh Regional Wheat Workshop for Eastern, Central and Southern Africa, held at CIMMYT, Addis Ababa, Ethiopia.

Ngatoluwa R.T.; H.A. Mansoor and A.S. Nyaki, (1995). Soil Characterisation at the Kisangara Rainwater Harvesting (RWH) experiment site. A joint project of Sokoine University of Agriculture (SUA) and University of Newcastle Upon Tyne, United Kingdom. Funded by DFID.

Ngatoluwa, R.T H.A. Mansoor; B.D.Majanga and J.A. Mckeague, (1987). Conservation Measures in Vertisols Under Large-scale Wheat Farming in Northern Tanzania. In Management of Vertisols under Semi-Arid Conditions. IBSRAM Proceedings # 6

## 15. REFEREES:

<p>Dr. Joseph Ndunguru; Director of Research and Innovation Tanzania Agricultural Research Institute (TARI) Cell: +255 764 554 458 Email: <a href="mailto:jndunguru2003@yahoo.co.uk">jndunguru2003@yahoo.co.uk</a></p>	<p>Dr. Geoffrey Mkamilo; Director General, Tanzania Agricultural Research Institute (TARI) Cell: +255 627 774 455 Email: <a href="mailto:geoffrey.mkamilo@gmail.com">geoffrey.mkamilo@gmail.com</a></p>
<p>Mel Zwierink RPF, P.Ag.CPESC Reclamation Environmental Specialist Stantec 200-325 25 Street SE Calgary AB T2A 7H8 Telephones: 403 441 5155 (D) 403 470 1420 (M) <a href="mailto:Melvin.Zwierink@stantec.com">Melvin.Zwierink@stantec.com</a></p>	