



RESEARCHER ID:

SCOPUS ID:

ORCHID: 0000-0001-6741-5540

Position: Principal Research Scientist (Soil science)

1. PERSONAL INFORMATION

- 1.1. NAME: ROBERT ORANGI NYAMBATI
1.2. ADDRESS: P. O. BOX 20412-00200 NAIROBI, KENYA
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1.5. NATIONALITY: KENYAN
1.6. GENDER: MALE

2. QUALIFICATIONS

2.1 Academic Qualifications

2006-2010 -PhD (D.Phil. Soil Science)-Moi University

1996-1999- (M.Phil. Soil Science)-Moi University

1986-1989 – (B.Sc. Forestry)-Moi University

2.2 Key Competencies Proposal writing skills

Resource Mobilization

Soil Analysis Skills

2.3 Other Courses

Data Management, Data Analysis and Presentation of Results, (KEFRI) (17th -23rd March 2005)

Communication and Publishing, (TCC) (14th-18th Dec 2009)

Strategic Leadership and Change Management (KIM). 21st-25th Nov 2011, 19th -23rd March 2012

Performance Management Training (Career Route), 24th-26th Nov 2014

Senior Management Course (KSG), Strategic leadership (KIM), 27th Nov- 22nd December 2017

3. EMPLOYMENT HISTORY

2019 to Date: Head Climate change, County Linkages at KEFRI

2010-2016: Regional Director, Lake Victoria Eco-region Research Programme

2017-2018: Regional Director, Rift Valley Eco-region Research Programme

2001-2010: Head of Agroforestry Systems/Trees on farm at the Maseno Regional Research Centre.

1999-2000: Extension Methods and Information Manager in the Social Forestry Extension Model Development Project (SOFEM)

1994-1996: Officer in-charge forestry extension in the Social Forestry Training Project (SFTP)

1989-1993: Officer in charge nursery/seed technology in the Social Forestry Training Project (SFTP)

4. ADMINISTRATIVE RESPONSIBILITY

2010 - 2016: Regional Director, Lake Victoria Ecoregion Research Programme

2017- 2018: Regional Director, Rift Valley Ecoregion Research Programme

2019-to Date: Head Climate Change Division-KEFRI

5. PUBLICATIONS

5.1. Journal papers

Kisinyo, P.O., Othieno, C.O., Gudu, S.O., Okalebo, J.R., Opala, P.A., Ngetich, W.K., **Nyambati, R.O.**, Ouma, E.O., Agalo, J.J., Kebeney, S.J., Too, E.J., and Opile, W.R. (2013). Immediate and residual effects of lime and phosphorus fertilizer on soil acidity and maize production in western Kenya. *Expl Agric* 2013: 1-16

Nyambati, R.O. and Opala, P.A. (2014). An agronomic and Economic Evaluation of Integrated use of *Calliandra calothyrsus* and Maize stover and Urea in Western Kenya. *American Journal of Experimental Agriculture* 4(1): 89-89

Opala, P.A, **Nyambati, R.O.** and Kisinyo P.O. (2014). Response of maize to organic and inorganic sources of nutrient in acid soils of Kericho County, Kenya *American Journal of Experimental Agriculture*: 4(6): 713-723, 2014.

Nyambati, R.O. and Opala, P.A. (2014). The Effect of Minjingu Phosphate Rock and Triple Superphosphate on Soil Phosphorus Fractions and Maize Yield in Western Kenya. *ISRN Soil Science* Volume 2014, Article ID 920541, 8 pages

Opala, P.A., Kisinyo P.O. and **Nyambati, R.O.** (2015). Effect of *Tithonia diversifolia*, farm yard manure and urea, and phosphate fertilizer application methods on maize yield in western Kenya. *Journal of Agriculture and Rural Development in the Tropics and Subtropics* Vol. 116 No. 1 (2015) 1–9.

Jesse Owino, Fredrick Lomekuya, Jackline Kemboi, John Malala, Andrew Orina, Ikal Ang'elei, Moses Njeru, Alex Lukwendah, **Robert Nyambati**, Jared Amwatta, Joshua Cheboiwo, Gabriel M. Muturi and Ben Chikamai. Sustainable management of the natural vegetation cover and fish breeding grounds in the western shores of Lake Turkana. *Academia Journal of Environmental Science* 8(6): 096-102, June 2020.

Pauline Bala, Samson Okoth Ojunga, Joyce Okumu, Abdalla Kisiwa, David Langat, and **Robert Nyambati**, (2020). Tree-Based Conflict Management Mechanism among Small Landholders in

Agroforestry Systems of Kenya. East African Journal of Forestry and Agroforestry, Volume 2, Issue 2, 2020

Nyambati, R.O., Odhiambo, D.G, Serrem C.K., Othieno, C.O., Mairura, F.S (2020). Effects of Integrated Use of *Calliandra calothyrsus* and Maize Stover with Urea on Soil Mineral Nitrogen, Striga Infestation and Maize Yields in Western Kenya. Journal of Experimental Agriculture International. **42(1): 1-11.**

Nyambati, R.O., Odhiambo, D.G, Serrem C.K., Othieno, C.O., Mairura, F.S (2020). Effects of Integrated Use of *Calliandra calothyrsus* and Maize Stover with Urea on Maize Yield Components under *Striga* Infestation in Western Kenya. Universal Journal of Agricultural Research 8(5): 165-172.

Nyambati, R.O., Odhiambo, D.G, Serrem C.K., Othieno, C.O. (2020). Economic Evaluation of Organic and Inorganic Sources of Nitrogen under Striga Infestation in Western Kenya. Journal of Experimental Agriculture International 42(9): 226-234.

5.2 Books

5.3 Book Chapter

5.4 Technical Notes /Protocols/Guidelines

Nyambati R.O., and Hirao, S. (1991). Nursery manual for ASAls

Nyambati, R.O., Ariho, A., Ainomugisha, A., and Werishet, A. (2013) Collective Marketing for Smallholder Farmers. Facilitator's Manual.

Nyambati, R. O. (2013) Striga: management options in Lake Victoria Basin

Nyambati R. O. 2015 Soil fertility in Lake Victoria basin Opportunities and challenges

Nyambati R. O. (2012) Propagation and management of Eucalyptus

5.5 Policy Briefs

6. RESEARCH

6.1. Completed

Effects of Micro-catchment Size on Survival and Growth of Two Semi-Arid land Species. *Croton megalacarpus* and *Cassia spectabilis*.

Root System Development Studies of some Selected ASAL Species in Kutui, Kenya

The Effect of Minjingu Phosphate Rock and Triple Superphosphate on Soil Phosphorus Fractions and Maize Yield in Western Kenya.

Strategies to Minimize Termite Damage to Planted Trees in ASALs

Trials on Propagation and Management of *Melia volkensii*.

Nursery Practices in the Drylands: Case study of Kitui District, Kenya

Soil Fertility Evaluation, Management Strategies and Constraints in Kitui District.

Effects of Eucalyptus on small scale farms sin Western Kenya

Appraisal of Farm Forestry Development around Tinderet Forest.

Effect of organic and inorganic resources of nitrogen on *Striga hermonthica* and grain yield in western Kenya

Scaling up of Integrated Soil Fertility Management Technologies for Improved livelihoods in East and Central Africa (ECA)

Effects of Integrated Use of *Calliandra calothyrsus* and Maize Stover with Urea on Soil Mineral Nitrogen, *Striga* Infestation and Maize Yields in Western Kenya

Economic Evaluation of Organic and Inorganic Sources of Nitrogen under *Striga* Infestation in Western Kenya.

Effects of Integrated Use of *Calliandra calothyrsus* and Maize Stover with Urea on Maize Yield Components under *Striga* Infestation in Western Kenya.

Effect of integrated soil fertility management on maize yield and *Striga* infestation in western Kenya

Effects of *Striga hermonthica* on components of different maize varieties in western Kenya

The Status of Fruit Trees Farming among Small Scale Farmers: *A Case Study of Busia, Bungoma and Siaya Counties of Kenya*

Bamboo biomass feasibility study on propagation, plantation setting and establishment processing plant/industry in bungoma, busia and siaya counties

6.2 Ongoing research

Validating Sustainable Land Management Technologies for Enhanced Carbon Sequestration and Improved Smallholder Farmer's Livelihoods

6.3 Mentorship and supervision

Ogucha, Naomi Nyambuteri. (A148/20168/2010): Effects of NP fertilizers and manure application on maize yields, and soil nitrogen mineralization in Machakos county eastern Kenya MSC- Kenyatta University (2014)

Jacinta Ndunge Munyao (REG NO. SC/00475/011): Antimicrobial activity of plant extracts from sausage tree (*Kigelia africana*) (Department of Botany, Maseno University (2015)

Atiang' Willis Odhiambo. An Evaluation of Integrated Soil Fertility Management options on Maize Yields in Gem Sub-County, Siaya County (MSc Student Great Lake University).

Riziki Umazi Mwadalu Improving soil properties and growth of *Casuarina equisetifolia* through use of *Prosopis juliflora* biochar, manure and inorganic fertilizer in Kilifi County, Kenya PhD Student (Kenyatta University)

Bartholomew Okemwa Nyakundi: Natural Resource Management (MSc student Kabianga University)

7. INNOVATIONS AND PATENTS (Intellectual Property)

8. CONFERENCES/SEMINARS/WORKSHOPS

8.1. Presentation of Papers at Academic and Professional Conferences

Nyandiga, C.O. and **Nyambati, R.O. (1993)** Effects of Micro-catchment Size on Survival and Growth of Two Semi-Arid land Species. *Croton megalacarpus* and *Cassia spectabilis*. A paper presented at the Fourth National Workshop on Land and Water Management (16th – 19th Feb, 1993). Sigona, Nairobi.

Mouk, B.O., and **Nyambati, R.O. (1997)**. Root System Development Studies of some Selected ASAL Species (Proceedings of KEFRI/JICA Conference on Social Forestry and Tree Planting Technology in Semi-Arid Lands at Muguga, Kenya (September 29-Oct. 2, 1997)

Kyalo, E., Minami, T., and **Nyambati, R.O. (1997)** Development of Tools and Techniques to Improve Seed Germination. (Proceedings of Social Forestry and Tree Planting Technology in Semi-Arid Lands at SFTP, Muguga, Kenya (September 29-Oct. 2, 1997.)

Nyambati, R.O. and Mutua, G. (1997) Nursery Practices for ASALs of Kenya. Proceedings of the Social Forestry Extension Seminar for the promotion of Tree Planting in Arid and Semi-Arid areas of Kenya). 27th-29th Sept. Muguga, Kenya.

Nyambati, R.O. and Mutua, G. (1999) (i) Termite control by traditional methods. Proceedings of the Social Forestry Extension Seminar for the promotion of Tree Planting in Arid and Semi-Arid areas of Kenya). 27th-30th Sept. 1999). Muguga, Kenya.

Nyambati, R.O. and Mutua, G. (1999) Strategies to Minimize Termite Damage to Planted Trees. Proceedings of the Social Forestry Extension Seminar for the promotion of Tree Planting in Arid and Semi-Arid areas of Kenya. (27th-30th Sept. 1999) Muguga – Kenya.

Mouk, B., **Nyambati, R.O.** and Lugadiru, J. (1999) Trials on Propagation and Management of *Melia volkensii*. Proceedings of the Social Forestry Extension Seminar for the promotion of Tree Planting in Arid and Semi-Arid areas of Kenya). (27th-30th Sept. 1999) Muguga, Kenya.

Nyambati, R.O., Kyalo, E., and Hayashi, N. (1999) Nursery Practices in the Drylands. Proceedings of the Social Forestry Extension Seminar for the promotion of Tree Planting in Arid and Semi-Arid areas of Kenya. (27th-30th Sept. 1999) Muguga, Kenya.

Nyambati, R.O. (2000). Soil Phosphorus Fractions as Influenced by Phosphorus and Nitrogen Sources on Two Sites in western Kenya. A paper presented at the 18th Annual General Conference of the Social Science Society of East Africa (3rd – 8th Dec. 2000). Mombasa, Kenya.

Nyambati, R.O. (2001). Soil Fertility Evaluation, Management Strategies and Constraints in Kitui District. Proceedings of the Social Forestry Extension Seminar for the promotion of Tree Planting in Arid and Semi-Arid areas of Kenya. (22th-27th Sept. 2001). Muguga, Kenya.

Nyambati, R., Koech, C., and Muok, G. (2006) Appraisal of Farm Forestry Development around Tinderet Forest. A paper presented at the 3rd KEFRI Scientific Conference, 6-9th November, 2006. Muguga, Kenya.

Nyambati, R.O., Okalebo, J.R, Othieno, C.O, P.C. Smithson and Bashir Jama (2008). Soil Phosphorus Fractions and Maize yield as Influenced by Phosphorus and Nitrogen Sources on Two Soil types in Western Kenya. Paper presented at the 4th Annual International Conference Moi University. 29th July -1st August 2008. Eldoret, Kenya.

Nyambati, R.O., Okalebo, J.R, Othieno, C.O., Serem, C., Imo, M. (2008). Comparative short term effects of different quality organic resources and urea on maize productivity soil types in Western Kenya: Paper presented at the 4th Annual International Conference Moi University. 29th July -1st August 2008. Eldoret, Kenya.

Nyambati, R.O., Okalebo, J.R, Othieno, C.O., Serem, C., Imo, M. (2008). Soil Nitrogen Nitrogen ammendment Effects on Nitrogen Uptake and Grain yield of Maize under two soil types in Western Kenya. Paper presented at the 4th KEFRI Scientific Conference, 6-9th October, 2008. Muguga, Kenya.

P.A. Opala, J.R. Okalebo, C.O. Othieno and **R.O. Nyambati**. Comparative effects of organic and inorganic phosphorus sources on maize yields at two acidic sites in western Kenya. Joint proceedings of the 27th Soil Science Society of East Africa and the 6th African Soil Science Society.

8.2. Participation in Workshops/Conferences

Fourth National Workshop on Land and Water Management (16th – 19th Feb, 1993). Sigona, Nairobi.

Social Forestry and Tree Planting Technology in Semi-Arid Lands at Muguga, Kenya (September 29-Oct. 2, 1997)

Social Forestry Extension Seminar for the promotion of Tree Planting in Arid and Semi-Arid areas of Kenya). 27th-30th Sept. 1999). Muguga, Kenya.

18th Annual General Conference of the Social Science Society of East Africa (3rd – 8th Dec. 2000). Mombasa, Kenya.

19th Annual General Conference of the Social Science Society of East Africa Kampala Uganda (2003)

Social Forestry Extension Seminar for the promotion of Tree Planting in Arid and Semi-Arid areas of Kenya. (22th-27th Sept. 2001). Muguga, Kenya.

3rd KEFRI Scientific Conference, 6-9th November, 2006. Muguga, Kenya.

Fourth Annual International Conference Moi University. 29th July -1st August 2008. Eldoret, Kenya.

4th KEFRI Scientific Conference, 6-9th October, 2008. Muguga, Kenya.

The 27th Soil Science Society of East Africa and the 6th African Soil Science Society (Nakuru-Kenya)

6th KEFRI Scientific Conference, 6-9th October, 2018. Muguga, Kenya.

8.3 Convening/Coordinating Conferences

9. PROFESSIONAL ENGAGEMENT

- 9.1. Training
- 9.2. Consultancies
- 9.3. Collaboration with external organizations

10. EXTERNAL AND INTERNAL RESEARCH GRANTS

Include research grants won

Scaling up of Integrated Soil Fertility Management Technologies for Improved livelihoods in East and Central Africa (ECA) Region 2012-14 (**ASARECA/ World Bank**).

Water Tower Protection and Climate Change Mitigation and Adaptation Programme (2015-2020) (**EUROPEAN UNION**)

Scaling-up Sustainable Land Management and Agro-biodiversity Conservation to Reduce Environmental Degradation in Small-scale Agriculture in Western Kenya. (2017-2021) **KALRO/ GEF**)

Validating Sustainable Land Management Technologies for Enhanced Carbon Sequestration and Improved Smallholder Farmer's Livelihoods. (**World Bank-2020-2022**)

11. LOCAL, REGIONAL & INTERNATIONAL APPOINTMENTS

11.1. Local

Regional Coordinator: Strengthening the Protected Area Network within the Eastern Montane Forest Hotspot of Kenya (2011-2014)

Principal Investigator: Scaling up of Integrated Soil Fertility Management Technologies for Improved livelihoods in East and Central Africa (ECA) Region (2012-2014)

Regional Coordinator: Water Tower Protection and Climate Change Mitigation and Adaptation Programme (2015-2018)

Appointment as a member of the Sector Skills Advisory Committee for Soil Management (TVET) Curriculum Development (2018)

Appointment as Pillar Member for Developing National Agroforestry Strategy (2020)

Appointment as a member of the secretariat for the 10% Forestry Cover in Kenya (2020)

Member of the Technical Working Group towards Implementation of Tree Nursery Certification Standards for Kenya (2020)

11.2. Regional

11.3. International

12. AWARDS AND RECOGNITION

13. CONTRIBUTION TO KEFRI's ADVANCEMENT

Spearheading the implementation of Eco-Regional activities in the 4th and 4th Strategic plans

Resource Mobilization for technology development in Soil Fertility Management and Climate change

Strengthen linkages with stakeholders at the Regional Levels (LVBERP and RVERP)
Technology development in Tree nursery management, farm forestry and Integrated soil Fertility Management

14. MEMBERSHIP TO PROFESSIONAL BODIES

Forestry Society of Kenya (FSK)

Soil Science Society of East Africa (SSSEA)

15. REFEREES

Prof. John Robert Okalebo

Soil Science Department

University of Eldoret

Box 1125

Eldoret, Kenya

Prof. Caleb.O. Othieno

Soil Science Department

University of Eldoret

Box 1125

Eldoret, Kenya

Prof. Duncan G. Odhiambo

Department of Applied Plant Science, Maseno University,

Private Bag,

Maseno, Kenya