



ORCHID: 0000-0002-3591-9696

Position: *Research Scientist* (soil scientist)

1. PERSONAL INFORMATION

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| 1.1. NAME | Mary Wairimu Gathara |
| 1.2. ADDRESS | P.O. Box 20412-00200 Kefri-Nairobi |
| 1.3. PHONE | 0712809563 |
| 1.4. EMAIL ADDRESS | mwgathara@gmail.com or mgathara@kefri.org |
| 1.5. NATIONALITY | Kenyan |
| 1.6. GENDER | Female |

2. QUALIFICATIONS

2.1. Academic Qualifications

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|-------------|---|
| 2012 – 2015 | MSc (Environmental Science), Egerton University, Kenya |
| 2010 – 2011 | Premasters (environmental Science), Egerton University, Kenya |
| 2007 – 2009 | Higher National Diploma (crop protection), Kenya Polytechnic, Kenya |
| 1990 – 1993 | Ordinary Diploma (Environmental science), Kenya Polytechnic, Kenya |

2.2. Other Courses

17th-19th April, 2018: 5th KEFRI Scientific Conference” Contribution of Forestry Research to Sustainable Development”.

June, 2016: United Nations/ Kenya Conference on space Technology and Applications for Wildlife Management and Protecting Biodiversity

September, 2014: Rapid Carbon Stock Appraisal and Development of PIN+PDD

June, 2012: Participated in IUFRO international congress in Kenya

3. EMPLOYMENT HISTORY

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| May 2019 – Date | Research Scientist II, Kenya Forestry Research Institute, Headquarters. |
| 2012 – 2019 | Technologist I, Kenya Forestry Research Institute, Headquarters. |
| 1996 – 2012 | Technologist II, Kenya Forestry Research Institute, Headquarters. |

1988 – 1996

Technician, Kenya Forestry Research Institute, Headquarters.

4. ADMINISTRATIVE RESPONSIBILITY

July 2020: Head Soils Section Lab, Kenya Forestry Research Institute (KEFRI), P.O Box 20412 - 00200 Nairobi, Kenya.

5. PUBLICATIONS

5.1. Journal papers

- S. Mwalusepo, E.S. Massave, T. Johansson, E. Abdel-Rahman, **M.Gathara**, E. Njuguna, P.A.Calatayud, O.J.James, T. Landmann and B.P. Le Ru (2018). Modelling the Distribution of Maize Stem Borers at Local Scale in East African Mountain Gradients Using Climatic and Edaphic Variables. *African Entomology Journal*, 26 (2): 458 – 470
- C. Wekesa, E.K.Maranga, B. K. Kirui, G.M. Muturi & **M. Gathara** (2018). Interactions between Nature Tree Species and Environmental Variables along Forest Edge-Interior Gradient in Fragmented Forest Patches of Taita Hills, Kenya. *Forest Ecology and Management Journal* 409 (2018) 789-798.
- R. Mwandalu and **M. Gathara** (2017). Biodiversity Status of Arabuko Forest, Kenya. Edaphic Characterisation of Arabuko Sokoke Forest.
- Calatayud P., Njuguna E., Mwalusepo S., **Gathara M.**, Okuku G., Kibe A., Musyoka B., Williamson D., Ong'amo G., Juma G., Johansson T., Subrumanian S., Gatebe E. and Le Ru B. (2016). Can Climate Change Driven Change Influence Silicon Assimilation by Cereals and Hence Distribution of Lepidopteran Stem Borers in East Africa. *Journal of Agriculture Ecosystem and Environment* 224 (2016) 95-103
- Njuguna E., **Gathara M.**, Nadir S., Mwalusepo S., Williamson D., Etienne P., Kimani J., Landmann T., Juma G., Ong'amo G., Gatebe E., Le Ru B. and Calatayud P. (2015). Characteristics of soil in Selected maize growing sites along altitudinal gradients in East African Highland. *Journal of Data in Brief* 5(2015) 138-144
- **Gathara M.**, Makenzi P., Kimondo J. and Muturi G. (2014). Prediction of *Osyris lanceolata* (Hochst&Steud.) site suitability using indicator species and edaphic factors in humid highland and dry lowland forests in Kenya. *Journal of Horticulture and Forestry*. 6(11)

5.2. Books

- Agronomic Evaluation of Nutrient Status for favorable growth commercial Aloes Around Arabuko-sokoke Forest (Malindi District)
- **MSc. Research Project:** Biophysical Environmental Factors influencing the Distribution of *Osyris lanceolata* (Hochst&Steud): Case Study of Gachuthi and Kibwezi Forest in Kenya.

5.3. Technical Notes /Protocols/Guidelines

- www.chiesa.org. Climate Change Impacts on Ecosystem Services and Food Security in Eastern Africa. Increasing knowledge, Building Capacity and Developing Adaptation Strategies. Collaboration of (icipe, IRD and Ministry of Foreign Affairs of Finland)

6. RESEARCH

6.1. Completed

Develop Technologies for sustainable management of wetlands and riparian ecosystem - Case study – Phytoremediation of polluted Ondiri Swamp and River Njiru

6.2. Ongoing research

1. Component lead investigator in the NRF funded project “Propagation of Sandalwood for Livelihoods Support, Adaptation to Climate Change and Conservation of its Genepool, 2017-2020”
2. Integrated collaborative research on climate change, water resources and food security in upper Ewaso Nyiro river basin for sustainable management and enhanced ecosystem health Ewaso Nyiro River basin Collaborative Research Project - Soil characterization- and mapping.
3. Co-lead investigator- Determine phytoremediation potential of trees /plants for rehabilitation of polluted ecosystems in Kenya.

7. PROFESSIONAL ENGAGEMENT

7.1. Training

Training attachees and interns from various Universities and colleges in Kenya Forestry Research Institute.

7.2. Consultancies

INBAR Project, October 2020- Bamboo Species-Site Suitability Matching in Kenya

8. AWARDS AND RECOGNITION

- Certificate- Climate Change, Rapid Forest Carbon Stock Appraisal and Development of PIN and PDD for Carbon Financing
- Certificate of Participation - Quality Assurance in Laboratory Testing
- Member in Community Participation in Forest Management.
- Member in Kenya Professional Women in Agriculture and Environment (KEPWAE) – Awarded merit certificate for participating in construction of energy saving jikos.
- Certificate of participation – introduction to computer basics, Microsoft Excel, Data management, Field Experimental Methods and Data Collection in Forestry.
- Certificate of participation - Laboratory management course

- Certificate of Recognition – Ngong Household Energy Project- Training and Implementation
- Certificate – Sida – Makerere Regional Training Programme in Environmental Journalism and Communication for Eastern Africa, held at Daystar University, Kenya

9. MEMBERSHIP TO PROFESSIONAL BODIES

1. Forestry Society of Kenya (FSK)

10. REFEREES

1. Dr. James Kimondo, Deputy Director Forest Plantation Improvement, KEFRI Email address: jmkimondo59@yahoo.co.uk
2. Dr. Paul Makenzi, Lecturer, Department of Environmental Science, Egerton University, P. O. Box 536, Egerton Email address: pmakenzi@yahoo.com