

CV FOR JOHN NGUGI KIGOMO



RESEARCHER ID: KEFRI/6721

SCOPUS ID :

ORCHID:

Position: Senior Research Scientist (Forest Resource Assessment)

1. PERSONAL INFORMATION

- | | |
|--------------------|---|
| 1.1. NAME | John Ngugi Kigomo |
| 1.2. ADDRESS | 20412-00200, Nairobi, Kenya |
| 1.3. PHONE | +254 735393821 |
| 1.4. EMAIL ADDRESS | kigomo2@yahoo.com ; jnkigomo@kefri.org |
| 1.5. NATIONALITY | Kenyan |
| 1.6. GENDER | Male |

2. QUALIFICATIONS

2.1. Academic Qualifications

- 2019 to Present:** PhD-Student- Natural Resource Management, Egerton University, Kenya
2009 to 2011 : Masters of Science-Forest Mensuration, Ehime University, Japan
2000 to 2003 : B Sc. in Natural Resource Management, Egerton University, Kenya

2.2. Key Competencies

- Proficiency in statistical soft wares (Genestat, Minitab and R)
Proficiency in Microsoft office suite
Good skills in application of GIS and GPS in forestry
Research project planning and implementation

2.3. Other Courses

- 21 September to 8 November, 2020:** Forest Landscape Restoration. Online Training Programme in Yale School of the Environment, USA.

- 24-27 August 2020:** Restoration Opportunity Assessment Methodology(ROAM) Training Sponsored by The Global Environment Facility through FAO held at Nyeri, Kenya

3-7 February 2020: African Regional Data Cube and Monitoring of Environment Organized by Kenya Meteorological Department at Institute of Meteorological Training and Research, Nairobi, Kenya

26 to 29 August 2019: Mapathon-Land use data collection tool using Collect Earth at Regional Centre for Mapping of Resources for Development (RCMRD), Nairobi

12-20 May 2018: Training on Synthetic Aperture Radar (SAR) Remote Sensing held in Centre of Landscape and Climate Research, University of Leicester, UK

23 -27 April 2019: Modelling climate and Application to the Forestry Sector in Eastern and Sourthen Africa, Mombasa Kenya

1-18 November 2015: Advanced training workshop on ecosystem monitoring and management for developing countries, Chinese Academy of Sciences, Beijing, China

8-28 September 2015: Training workshop on tropical forest sustainable development for developing countries held in State Academy of Forestry Administration, Beijing, China

25 November to 5 December 2014: Training on mapping to support land use planning for REDD+ using QGIS held in Kenya Forest Service (KFS), Nairobi, Kenya

18 February to 1 March 2013: International course on climate change adaptation in agriculture and natural resource management, Makerere University, Uganda

23-27 January 2012: Refresher scientific writing course in Kenya Forestry Research Institute, Muguga

30 July to 10 August 2012: Capacity building in forest inventory and remote sensing held in Kenya Forest Service under PASCO Project, Japan

5 July to 7 August 2010: Capacity development in forest carbon budget and climate change in Ehime University (Japan) and Parankaraya University (Indonesia)

13 October to 2 November 2008: Capacity Building in project cycle management, strategic planning and proposal writing held in EAST College Embu Kenya

3-20 August 2008: Participatory GIS for Development Studies in Helsinki University Finland

3. EMPLOYMENT HISTORY

2020- Present: Senior Research Scientist, Kenya Forestry Research Institute (KEFRI), Central Highlands Eco-Region Research Programme - Muguga

2015- 2020: Research Scientist I, Kenya Forestry Research Institute (KEFRI), Central Highlands Eco-Region Research Programme – Muguga

2010- 2015: Research Scientist II, Kenya Forestry Research Institute (KEFRI), Central Highlands Eco-Region Research Programme-Muguga

2004 to 2010: Assistant Research Scientist: Kenya Forestry Research Institute, Turkana Regional Sub-Centre

4. ADMINSTRATIVE RESPONSIBILITY

2004- 2009: Officer –In – Charge, Turkana Regional Sub-Centre

5. PUBLICATIONS

5.1. Journal papers

Poletti C., Dioszegi G., Nyongesa K.W., Vacik H., Barbuani M., and **Kigomo J.N.** (2019) Characterization of Forest Fires to Support Monitoring and Management of Mount Kenya Forest, Mountain Research and Development (MRD), Vol 39, No 3

Zhao Y., Feng D, Jayaraman D. , Belay D. , Sebrala H. , **Ngugi J.**, Maina E., Akombo R. , Otuoma J., Mutyaba J., Kissa S. , Qig S. , Assefa F., Oduor M.N., Ndawula A.K., Li Y., Gong P., (2018). Bamboo mapping of Ethiopia, Kenya and Uganda for the year 2016 using multi-temporal Landsat imagery International Journal of Applied Earth Observation and Geo-information 66, 116–125

Kigomo J.N., Kuria M.N., Gatama S. and Waweru E.M. (2018) Evaluation of land and vegetation degradation indicators in Kiang'ombe landscape, Mbeere North, Kenya, Journal of Research in Forestry, Wildlife & Environment Vol. 10(1), 74-84.

Kigomo J.N., Muturi G.M., Gachathi F.N., Kimani S.M., Kuria M.N and Macharia E. (2015) Vegetation composition and dynamics along degradation gradient of Kiang'ombe hill forest in the drylands of Kenya, Journal of Horticulture and Forestry, Vol. 7(7) 168-178.

Kinyanjui, M. J., **Kigomo, N. J.**, Wambui, K. M., Kariuki, N. J., Charles, N., Macharia, N. J., Odidi, O. W., Fredrick, A., Omamo, O. A., & Katumbi, N. M. (2015). Comparing tree heights among montane forest blocks of Kenya using LiDAR data from GLAS. *Open Journal of Forestry*, 5, 80-89

Kigomo J.N. and Muturi G. M. (2013) Impacts of enclosures in rehabilitation of degraded rangelands of Turkana County, Kenya, *Journal of Ecology and the Natural Environment*, Vol. 5(7): 165-171

Kigomo J.N., Sweda T. and Tsuzuki H. (2013) Improved model for estimation of leaf area index using airborne laser profiling, *Journal of Horticulture and Forestry*, Vol. 5(4) 53-60.

5.2. Books

5.3. Book Chapter

Wekesa C., **Ngugi J.**, Mulwa D. and Leley N. (2019). Floristic composition and structure of Buda Forest, In *Biodiversity Status of Buda Forest, Kenya*, In: Kamondo et al (eds.) *Biodiversity status of Buda Forest, Kenya*

Kigomo J.N., Ndungu S.M, Macharia E. and Waweru S. (2015). Management of *Prosopis* species to enhance natural regeneration in Northern Kenya In: Khalif et al. (eds.); *Sustainable land management in the drylands of Kenya*

Kigomo J.N. and Muturi G.M. (2014) Capacity building in woodland rehabilitation and conservation of degraded areas In: Muturi et al. (eds.); *Rehabilitation and conservation of degraded woodlands surrounding Kakuma refugee camp*.

Esilaba E.O., Okoti, M., Nyariki D.M., Keya G.A. Miriti J.M., **Kigomo J.N.**, Olukoye G., Wekesa L., Ego W., Muturi G.M. and Cheruiyot H.K. (2011). The Desert Margins Programme approaches in up scaling best bet technologies in arid and semi-arid lands in Kenya. In Bationo et al. (eds.) *Innovations as key to green revolution in Africa*.

5.4. Technical Notes /Protocols/Guidelines

Ndambiri J., **Ngugi J.**, Maina E. and Mutwiri F. (2020) **Technical Manual for Forest Biomass Mapping in Kenya**, Kenya Forest Service, Nairobi, Kenya.

Ndambiri J., **Ngugi J.** and Maina E. (2020) Monitoring of Woodland Biomass in Kenya; **Technical Guide for Establishing Permanent Sample Plots and Monitoring Above Ground Biomass in Kenya's Woodlands**, Kenya Forest Service, Nairobi, Kenya.

Mbae N. Muchiri, **John Ngugi**, Mwangi Kinyanjui, Kirongo Balozi, Fredrick Ojuang, Peter Nduati, Willis Atie, Pekka Hyvönen, Helena Haakana, Jukka Alm, András Balázs, Heikki Parikka (2016) **Field Manual for Biophysical Forest Resources Assessment in Kenya**. Prepared through The Project “Improving Capacity in Forest Resources Assessment in Kenya (IC-FRA)” implemented 2013–2015.

Pekka Hyvönen, Helena Haakana, Mbae N. Muchiri, Meshack Muga, Balozi K. Bekuta, James M. Kimondo, Daniel M. Mbithi, **John Ngugi**, Peter N. Nduati, Stephen Karega, Mwangi Kinyanjui, Fredrick Ojuang (2016) **Field Manual for Tree Volume and Biomass Modelling**. Prepared through The Project “Improving Capacity in Forest Resources Assessment in Kenya (IC-FRA)” implemented 2013–2015.

5.5. Policy Briefs

John N. Kigomo (2018) Forest Fires and Climate Change: Safety, recovery and general preparedness: Article in Miti Magazine, Issue no. 38; April-June 2018. Published by Better Globe Forestry Limited

6. RESEARCH

6.1. Completed

No.	Title of Project	Role
1.	Desert Margins Programme-GEF Project (2004-2006)	Project Focal Officer-Turkana
2.	Rehabilitation and Conservation of Degraded woodlands surrounding Kakuma Refugee Camp (Turkana) funded by Japanese Forestry Consultants Association (JOFCA) (2007-2009)	Project Implementing Officer
3.	Sustainable Land Management in Agro-pastoral production systems-GEF Project (2013- 2015)	Principal Investigator(KEFRI)-Mbeere North Project Site
4.	Improving Capacity in Forest Resource Assessment funded by Government of Finland(GOF) and Government of Kenya(GOK) (2014-2016)	Team Leader Quality Control/Quality Assurance and Technical officer, tree biomass modelling
5.	System for Land-based Emission Estimation in Kenya(SLEEK) (2014-2015)	Member: Forest Biomass and Yield Studies-Element Working Group

6.	Developing fire danger maps for identifying fire hot spots and improving fire management in Mt. Kenya forest funded by Government of Austria (2015- 2017)	Assistant Project Coordinator and Field Focal Officer
8.	Forest 2020 Project funded by UK space agency 2017-2020	Team Leader- Developing improved methods for forest biomass assessment and monitoring

6.2. Ongoing research

Component Leader, **Forest Landscape Restoration** in Restoration of arid and semi-arid lands (ASAL) of Kenya through bio-enterprise development and other incentives under The Restoration Initiative Project funded by Global Environment Facility(GEF) through FAO (2019-2023)

Principal Investigator in **developing a fire occurrence prediction model for Aberdare Ecosystem** funded by GOK

Co-Investigator: **Establishment of Permanent Sample plots for long-term monitoring and sustainable management of natural forests and woodland resources of Kenya** funded by GOK

6.3. Mentorship and supervision

Supervision: Students on attachment from colleges and universities

Mentorship: Assistant Research Officers and Research Officers

7. INNOVATIONS AND PATENTS (Intellectual Property)

8. CONFERENCES/SEMINARS/WORKSHOPS

8.1. Presentation of Papers at Academic and Professional Conferences

Ngugi J. and Maina E. (2019) Estimation of Forest Biomass from Space for Emerging Business Investments presented during Forest 2020 showcase workshop on use of earth observation technologies in forest monitoring held at AICAD conference Centre, Juja from 11-12 September 2019

Kigomo J. N, Ndung'u S., Macharia E. (2019) Effect of enclosures age on restoration of degraded woodlands surrounding Kakuma refugee camp, Turkana County, Kenya, A paper

presented in XXV IUFRO world conference from 29th September to 5th October 2019 in Curitiba, Brazil.

Kigomo J.N., Kuria M.N., Macharia E. (2018) Towards rehabilitation of degraded woodlands in charcoal producing semi-arid areas of Embu County, Kenya, In: Proceedings of the 5th KEFRI scientific conference, 17-19 April 2018, Nairobi, Kenya

Nyongesa K.W., Birech R., **Kigomo J.N.**, Poletti C., Vacik H. (2016): Wildfire Research and Management Supports Local Communities in Mt. Kenya In: Freyer, B & Tielkes W (Eds), Tropentag 2016 - Solidarity in a competing world — fair use of resources, 254; ISBN: 978-3-7369-9341-9

Kigomo J.N., Kuria M. N., Macharia E. (2016) Land degradation indicators to support rehabilitation and conservation of woodlands in Kiang'ombe Landscape, Embu County. A paper presented at 2nd National conference on Sustainable Land Management; 1-4 June 2016, The Sentrim Elementaita Lodge, Naivasha

Kigomo J.N., Kimani S.M., Mucheke W. (2015) Mapping forest fires under changing land use and climate variability in Aberdare ecosystem, Kenya. A paper at XIV World Forestry Congress in Durban, 7-11 September, 2015, Durban, South Africa

Kigomo J.N., Muturi G.M., Kiama S., Gachathi F., Kuria M. and Macharia E. (2014). Land and vegetation degradation at Kiang'ombe hilltop forest, Embu County, Kenya. A paper presented at 9th Forest Society of Kenya Conference; 18 - 19 September 2014, Kisumu, Kenya

Kigomo J.N., Ndungu S.M, Macharia E. and Waweru S. (2013). Management of Prosopis species to enhance natural regeneration in Northern Kenya. A paper presented at Sustainable Land Management Conference; 25- 29 November 2013, Naivasha, Kenya

Kigomo J.N. (2012) The role of Kenya Forestry Research Institute in REDD+ projects: A paper presented in 3rd GEN Network and 4th Rispescia International Conference, Sustainable Bio-resources for Global welfare in Bali, Indonesia

Kigomo J.N. and Sweda T. (2011) Implications of global climate change to potential forest cover in Africa. In: Proceedings of the 3rd Scientific Conference of the Ecological Society for Eastern Africa, 19-21 May 2010, Multimedia University College, Nairobi.

Kariuki J. G. and **Kigomo J.N.** (2009) Biomass prediction models for *Acacia reficiens* and *Acacia mellifera* in Kakuma, Turkana District. In Proceedings of the 4th KEFRI scientific conference, 6-8 October 2008, Nairobi, Kenya

Kigomo J.N., Luvada A.M., Epodo J. (2009) Experiences of management and utilization of Invasive *Prosopis juliflora* in Turkana District (2009). In: Proceedings of the 4th KEFRI scientific conference, 6-8 October 2008, Nairobi, Kenya

8.2. Participation in Workshops/Conferences

Participation to International conference on monitoring tropical forest deforestation and degradation under Forest2020 project in Edinburgh, Scotland, UK from 8-11 April 2019

8.3. Convening/Coordinating Conferences

Coordination of International web-based video conference ROAM training from 24 to 27 August 2020 in Nyeri, Kenya by BBC Research and Consultants.

Coordination and key facilitator of Stakeholders Validation Workshop on Guidelines for Establishing Permanent Sample Plots for Monitoring Woodlands in Kenya on 29th January 2020

9. PROFESSIONAL ENGAGEMENT

9.1. Training

Training of Master Trainers on assessment of trees on-farm in Nyandarua County under Forest and Farm Facility of FAO at Lake Olbolosat Resort Lodge from 20 to 21 June 2019

9.2. Consultancies

9.3. Collaboration with external organizations

Member of Joint Management Committee(JMC) implementing Memorandum of Understanding (MOU) between KEFRI and Kenya Meteorological Department, County Government of Kiambu and Tsavo Heritage Foundation.

A member of National REDD+ Technical Working Group

10. EXTERNAL AND INTERNAL RESEARCH GRANTS

10.1 Global Environment Facility funding “Restoration of arid and semi-arid lands (ASAL) of Kenya through bio-enterprise development and other incentives under The Restoration Initiative” (USD 4,157,340)

10.2 Commission for Development Research-Austria funded the project “Developing fire danger maps for identifying fire hot spots and improving fire management in Mt. Kenya forest-2015-2017” (30,000 Euros)

11. LOCAL, REGIONAL & INTERNATIONAL APPOINTMENTS

- 11.1. Local
- 11.2. Regional
- 11.3. International

12. AWARDS AND RECOGNITION

Commendation Letter dated 10th December 2020 from Cabinet Secretary, Environment and Forestry on my contribution as a member of Multi-Agency Team on Mapping, Verification and Mapping of mature/over mature forest plantations in Kenya

13. CONTRIBUTION TO KEFRIs ADVANCEMENT

Contributed during development of National Forest Health Research Strategy (2018-2033) and Forestry Research Strategy on Climate Change (2018).

14. MEMBERSHIP TO PROFESSIONAL BODIES

- Forestry Society of Kenya

15. REFEREES

1) Prof. Gilbert Obwoyere

Faculty of Environment and Resource Development
Egerton University
P.O. BOX 536
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2) Mr. Jamleck Ndambiri

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