CURRICULUM VITAE



ORCID ID NO. 0000-0002-8517-4952

PERSONAL INFORMATION

Family name: Mullah	Middle name: Amwatta	First name: Jared
Date of Birth: 29 th December, '60	Citizenship: Kenyan	Sex: Male

PROFESSION

Forest Ecology

MAJOR INTEREST

- i. Development and promotion of technologies for management of invasive plant species
- ii. Supporting development and promotion of technologies for ecosystem rehabilitation and restoration
- iii. Climate change adaptation and mitigation through innovative use of natural resources (water, soils, forestry)

Current Research Activities

- a) Inventory of invasive plant species in Mt. Kenya and Aberdare Ecosystems,
- b) Development of climate smart indigenous chicken feeds by incorporating *Moringa oleifera* as protein source (KENYA CLIMATE SMART AGRICULTURE PROJECT-Development, Validation And Promotion Of Climate Smart Indigenous Chicken (IC) Technologies For Improved Productivity),
- c) Developing a research strategy for management of forest invasive plant species in Kenya, and
- d) Developing and refocusing research and development in Forest Ecology in Kenya

PERMANENT ADDRESS

P.O Box 484-40101	Mobile: +254 722846869, +254750139365
Ahero, Kenya	Email: <u>cjmullah@gmail.com</u>

EDUCATION AND ACADEMIC BACKGROUND

- 2007- 2011: Doctor of Philosophy (Ph.D.) Forest Ecology. Thesis title: <u>Disturbance</u>, <u>Regeneration and invasion: Implications for Recovery of Degraded Montane</u> <u>Forests in Kenya</u>. Department of Ecology and Natural Resource Management, Norwegian University of Life sciences, Ås- Norway.
- 1990- 1992: Master of Science (MSc) in Natural Resource Management and Sustainable Agriculture. Department of International Environment and Development Studies (Nogragric), Agricultural University of Norway, Ås-Norway:

1984-1987. Bachelor of Science (BSc.) in Forestry, Moi University, Eldoret, Kenya.

EMPLOYMENT RECORD AND PROFESSIONAL EXPERIENCE

October 2020-to date. Chief Research Scientist/Head of Forest Ecology, KEFRI HQTs

Overall responsibility

To manage, coordinate and provide strategic leadership for development and validation of technologies in Forest Ecology. The key sub thematic areas are;

- a) Forest rehabilitation and restoration of natural forests and woodlands,
- b) Management and conservation of forest biodiversity,
- c) Management of invasive species,
- d) Sustainable management of forests and woodlands,
- e) Wetlands and riparian ecosystem management,
- f) Development of technologies for mitigation and adaptation to climate change, and
- g) Development of technologies for soil and water management.
- January 2017– October, 2020: Chief Research Scientist/Regional Director, Lake Victoria Basin Eco-Region Research Program and Leader of implementation team, Kenya's Water Tower Protection and Climate Change Mitigation and Adaptation (WaTER) Programme in Mt. Elgon Forest, EU funded up to €1,949,944.70.

Overall Responsibility

Coordination and administration of research and development activities in the region

Specific responsibilities

- To negotiate and sign performance contracts
- To implement the agreed performance targets
- To ensure that other research and dissemination activities are implemented according to work plans
- To promote participatory and multidisciplinary research
- To ensure prudent management of the LVBERP region resources
- To enter into performance contracts with Scientists and other staff
- To facilitate and guide research and development activities in the region
- To submit to Director quarterly reports and annual report on agreed performance indicators
- To guide and prepare scientists and other staff for desired changes in research styles, attitude and research ethics
- To respond to requests by Scientists, Deputy Directors, Senior Deputy Director (Finance and Administration) and Director promptly
- To participate in promotion of linkages with users of research findings and other stakeholders
- To provide advisory services
- Guiding implementation of WaTER Towers project activities in Mt Elgon Forest Ecosystem
- To perform any other duties that may be agreed upon from time to time with Director

April 2014–December 2016. Regional Director, Rift Valley Eco-Region Research Program and Leader of implementation team, Kenya's Water Tower Protection and Climate Change Mitigation and Adaptation (WaTER) Programme in Cherangany Forest, EU funded up to €1,949,944.70.

Overall Responsibility

Coordination and administration of research and development activities in the region and lead investigator in WaTER Towers project implementation in Cherangany Hills Forest.

Specific responsibilities

- To negotiate and sign performance contracts
- To implement the agreed performance targets
- To ensure that other research and dissemination activities are implemented according work plans
- To promote participatory and multidisciplinary research
- To ensure prudent management of the RVERP resources
- To enter into performance contracts with Scientists and other staff
- To facilitate and guide research and development activities in the region
- To submit to SDD/RD quarterly reports and annual report on agreed performance indicators.
- To guide and prepare scientists and other staff for desired changes in research styles, attitude and research ethics
- To respond to requests by Scientists, Deputy Directors, Senior Deputy Director (Finance and Administration) and SDD/RD promptly
- To participate in promotion of linkages with users of research findings and other stakeholders
- To provide advisory services
- Guiding implementation of WaTER Towers project activities in Cherangany Hills Forest
- To perform any other duties that may be agreed upon from time to time with SDD/RD

November 2011–March 2014: Principal Research Scientist in RVERP-Londiani

Duties

- a) To implement the performance targets as set out in agreed performance contract
- b) To promote the participatory and multidisciplinary research

- c) To prepare quarterly and annual reports on agreed performance indicators
- d) To participate in promotion of linkages with users of research findings and other stakeholders
- e) To provide advisory services
- f) To perform any other duties that may be agreed upon from time to time with CD and National Programme Coordinator

Special assignment

I was appointed leader of a team to prepare <u>'A forest restoration/rehabilitation guidelines for</u> <u>forest managers and stakeholders in Kenya</u>'. Developing Kenya's national forestry programme: KEFRI input to the NFP and REDD+. January –June 2013

August 2007–November 2011: Norwegian University of Life Sciences (UMB), P. O Box 5003, NO-1432 Ås, Norway. Norwegian state Educational Fund (Lånekassen) Research Fellow

Overall Responsibility

To initiate and conduct ecological research in ecology and natural resources management relating to the Ph.D. research (Forest Ecology)

Specific responsibilities

- a) Develop methodologies, literature review, data collection and analysis related to the PhD research (i.e. Disturbance, Regeneration and invasion: Implications for Recovery of Degraded Montane Forests in Kenya), and
- b) Dissemination of research results that influence choice of potential restoration species, management of invasive plant species and use of passive restoration options in the management of watershed forests in Kenya.
- June 2005- July 2009: Senior Research Scientist and leader of Bridging restoration and multifunctionality in degraded forest landscape of Eastern Africa and Indian Ocean islands (FOREAIM), Work Package II. A four year programme with a total budget of € 2 268 894.

Overall Responsibility

Assessment of forest ecosystem degradation, community structure and species recovery for development of restoration options for Mau forest

Specific responsibilities

- To assess the effects of degradation of forest ecosystems on vegetation structure and composition in Mau Forest
- To examine on-going rehabilitation situations (old natural and planted fallows, existing plantations and secondary forests) and their impacts on vegetation structure and composition
- To assess trends in vegetation growth and biodiversity dynamics during the four year project, synchronic approaches will be used: they will assess tree functional groups, "vital ecosystem attributes" related to vegetation structure (ά diversity, seed banks, perennial and annual plant richness etc.) for perennial and annual plants on plots representative of differing stages of ecosystem redevelopment.
- To establish 40 plots in each site in two stages of vegetation in degrading zones and two states of vegetation in rehabilitating zones.
- To study population dynamics of the most economically promising species, to evaluate their potential to survive and produce wood and non-wood forest products in the regenerating secondary forests.
- To assess vegetation composition and plantation structure to evaluate any catalytic effect of species in plantation in stimulating colonization by other woody species
- Preparation of quarterly and annual work plans, cost estimates and performance reports
- July 2001–June 2005: Deputy Centre Director and TIVA Pilot Project Manager, JICA-KEFRI, Social Forestry Extension Model Development Project (SOFEM) 1997-2004 Kitui, Kenya

Duties

- Planning and implementation, of farm forestry in the semi-arid areas
- Developing demonstration plots on dry land farm forestry best practices
- Tracking project progress, writing reports, and presenting findings
- Ensuring project findings are alignment with corporate objectives, project guidelines and dry land farm forestry best practices

June1999–July 2001: Project lead Scientists: A survey of the distribution, impact of local use and regeneration of *Hyphaene compressa* (doumpalm) in the dry lands of Kenya. SIDA/SARECC funded through RPSUD research GRANT totaling \$ 20,000, NMK, Kenya.

Overall Responsibility

To promote and create awareness for sustainable use and conservation of doulpalm as a key resource in the ASALs of Kenya

Specific responsibilities

- a) To assess the distribution and ecological status of doumplam in the dry lands of Kenya
- b) Based on the results develop effective conservation and management interventions for all stakeholders

September 1996–March 1999: Research Scientist in Charge of Turbo National Research Station and Lead Scientist in implementation of Promotion of Sustainable Forest Management (PSFM) project in Turbo (1993-1998).

Duties

- a. Preparation of annual work plans and budgets for the station activities
- b. Establish both on station and on farm experimental trials
- c. Manage financial, human and physical assets of the station
- d. Preparation of timely and accurate quarterly and annual reports for the Project Manager and Director KEFRI.
- e. Supervision of station data collection and submission to the Project manager.
- f. Participation in all technical committee meetings at KEFRI HQTs

November 1992–July 1996: Research Scientist in Charge of Turkana Regional Research Station.

Duties

- a. Preparation of annual work plans and budgets for the station activities
- b. Supervise, maintenance of plots and seasonal data collection, data base maintenance and updating
- c. Dissemination of research results and influence on choices of tree species for ASALs afforestation and woodland management
- d. Manage financial, human and physical assets of the station

- e. Preparation of timely and accurate quarterly and annual reports for the Station activities
- f. Supervision of station data collection and submission to the Head of ASALs Division.
- g. Participation in all technical committee meetings in Turkana District

August 1990–August 1992: Master of Science, Agricultural University of Norway, NORAD Student stipends

Responsibilities

- a. Participate in course work and related academic activities in the University
- b. Conduct review, develop methodologies, data collection and analyses related to study.
- c. To write and submit a thesis for partial fulfillment of the MSc. requirements

February 1888–August 1990: Assistant Research Scientist and in charge of Care-Kenya/KEFRI Agroforestry Demonstration and Research Trials in Western Kenya.

Duties

- a. Management of CARE/KEFRI agroforestry trials in Siaya District
- b. Supervise application of research treatments, maintenance of plots and seasonal data collection, data base maintenance and updating
- c. Dissemination of research results and influence on farm tree planting adoption with emphasis on role of multipurpose tree species in land improvement and income generation
- d. To write and submit monthly/annual progress reports (narrative and financial) on funded agroforestry activities

July1987–February 1988: Assistant Research Officer (ARO) in Agroforestry Research and Development at KEFRI Muguga.

Duties

i. Assisting in data collection and analysis on agroforestry trials in Machakos and Siaya

- ii. Contribution to establishment of agroforestry research/demonstration plots in the field
- iii. To write and submit monthly/quarterly/annual progress reports on all agroforestry activates
- iv. Perform any other duties assigned by the head of Agroforestry

KEY PUBLICATIONS AND PAPERS PRESENTED

Published papers

- SO Ojung'a, JO Nyakinda, E Okuto and JA Mullah. 2020. Extensions of Lefkovitch matrix for modeling invasive *Cestrum aurantiacum* population Dynamics. Mathematical Theory and Modeling, ISSN 2224-5804 (Paper) Vol.10, No.7, 2020.
- SO Ojung'a, JO Nyakinda, E Okuto and **JA Mullah**. 2020. Sensitivity analyses of population projection matrix of *Cestrum aurantiacum*. International Journal of Statistics and Applied Mathematics 2020; 5(6): 43-47.
- Jesse Owino, Fredrick Lomekuya, Jackline Kemboi, John Malala, Andrew Orina, Ikal Ang'elei, Moses Njeru, Alex Lukwendah, Robert Nyambati, **Jared Amwatta Mullah**, Joshua Cheboiwo, Gabriel M. Muturi and Ben Chikamai. 2020. Sustainable management of the natural vegetation cover and fish breeding grounds in the western shores of Lake Turkana. Academia Journal of Environmetal Science 8(6): 096-102.
- S. O. Ojung'a, J. O. Nyakinda, E. Okuto, J. A. Mullah. 2019. Invasive Species Population Status Modeling Using Stage Based Matrix: Mount Elgon Ecosystem. Mathematical Theory and Modeling DOI: 10.7176/MTM Vol.9, No.2, 2019.
- Rono,D. K, Sirmah, P. K., Hitimana, J., and Mullah, C.J.A. 2018. Variation in regeneration density and population structure of *Prunus africana across human disturbance gradient in* South West Mau Forest, Kenya. International Journal of Natural Resource Ecology and Management 3(1): 1-8.
- Mullah, C. J. A., Klanderud K., Totland Ø. and Odee D. (2014). Community invasibility and invasion by exotic *Fraxinus pennsyvanica* trees in a degraded tropical forest, Kenya. *Biological Invasions* 16:2747-2755.
- Mullah C. J. A., Klanderud K., Totland Ø. and Kigomo B. (2013).Relationships between the density of two potential restoration trees and plant species abundance and richness in a degraded afromontane forest of Kenya. *African Journal of Ecology* 52:77-78.

- Mullah C. J. A., Totland, Ø. and Klanderud, K (2011). Recovery of species diversity and composition in abandoned forest settlement area in Kenya. *Restoration Ecology* 20:462-474.
- Mullah C. J. A. (2004). Diversity of use in doum palm (*Hyphaene compressa*) leaves in Kenya. *Palms* 48:184-190.

Conference proceedings

- Mullah, C.J.A. 2019. Technologies for Rehabilitation of Degraded Areas in the Water Towers of Kenya. A paper presented at the 8th Mara River Conference, 14-15th September, 2019, Mugumu, Tanzania.
- Opiyo, J., and **Amwatta, J.A**., 2018. Destruction of watershed forests beyond trees: Effects of anthropogenic disturbance on forest herpetofauna of Cherangany Hills Forest. 5th KEFRI Scientific Conference, 17-19 April, 2018. KEFRI Muguga, Kenya.
- Ojunga, S.O., **Mullah, J.A.**, Nyakinda, J.O., and Ongati, O. 2018. Invasive species population status modeling using stage based matrix -Mount Elgon ecosystem, Kenya. 5th KEFRI Scientific Conference, 17-19 April, 2018. KEFRI Muguga, Kenya.
- Leley, N., Amwatta, J.A., Macharia, M., Ngonga, B., and Atieno, J. 2018. Characterization of plant species diversity and abundance to inform rehabilitation of Cherangany Hills Forest. Kibabii University 3rd International Conference, 12-14 June, 2018. Bungoma, Kenya.
- Mullah, C. J. A. and Kigomo B.O. 2015. Kenya's highland forests: status, management, challenges, opportunities and restoration experiences. Eds Scott: Conference on Afromontane Woodlands – current status, challenges, and ways forward for Conservation, DCG Proceedings No. 26, 2015, Oslo, Norway.
- Mullah, C. J. A. Mbinga, J. M. and Omondi, W. 2013. Understanding tree regeneration following restoration with native tree plantations in degraded montane forests of Kenya. 5th World Conference on Ecological Restoration, 6-11th, October 2013, Madison, Wisconsin, USA.
- Mullah, C. J. A. Klanderud, K. Totland, Ø. and Kigomo, B. 2011. Relationship between two potential restoration trees and species abundance and richness in a degraded afromontane forest of Kenya .4th World Restoration Ecology Conference, 21-15th, Merida, Mexico.
- Mullah, C. J. A. Totland, Ø and Klanderud, K. 2008. Patterns of plant succession in abandoned forest fallows in Kenya. Sustainable Forest Management in Africa Symposium: African

Solutions to African Problems in Natural Forest Management, 3–7 November 2008, Stellenbosch, South Africa.

- Gachathi, F.N and **Mullah, C. J. A**. 2005. Endau Hilltop Forests: its contribution to the local community. 6th Open Meeting of Human Dimensions of Global Environmental Change Research Community, 9th -13 October 2005, University of Bonn, Germany.
- Amwatta Mullah C. J. and Ongugo P.O. (2001). Extracting high value tree species distribution using remotely sensed data, multi-disciplinary survey and GIS techniques in Mt. Elgon Forest, Kenya. 5th African GIS Conference and Exhibition 5th–9th November 2001. UNEP, Nairobi Kenya.

Technical reports, guides and Theses

- Mullah, C.J.A., Ngonga, B and Bii, W. 2021. The impact of livestock grazing on the forest structure, ground flora and regeneration of disturbed areas in Mau forest. Technical Note Kenya Forestry Research Institute (in press).
- Mullah, C.J.A, Ngonga, B and Ojunga, S.O. 2021. Management and control of *Cestrum aurantiacum* in Kenya. A guide for forest managers and stakeholders in rehabilitation of invaded areas in natural forest and agricultural landscapes. Kenya Forestry Research Institute (in press).
- John Otuoma and **Jared Amwatta**. 2018. Training manual for forest managers, community-base organizations and other stake holders on Natural forest Rehabilitation Techniques. Kenya's Water Towers Protection and Climate Change Mitigation and Adaptation Programme. KEFRI Muguga.
- Jared Amwatta Mullah and John Otuoma. 2018. Guidelines for rehabilitating degraded Water Tower Ecosystems in Kenya. Kenya's Water Towers Protection and Climate Change Mitigation and Adaptation Programme. January 2018, KERFI Muguga.
- Mullah, C. J. A. 2015. Field day report on Management of Cestrum invasion in Lekiricha Village, Elgeyo Marakwet County. KEFRI Newsletter Issue No. 12 Jan-March. 2015, Kenya Forestry Research Institute (KEFRI).
- Nyongesa, S and **Mullah .C.J.A**. (2015) Cestrum Field Day in Kimithon Mt Elgon Forest. KEFRI Newsletter Issue No. 1 5 Oct-Dec. 2015, Kenya Forestry Research Institute (KEFRI).
- Mullah, C. J. A. Owuor, B. and Angaine, P. (2006). Doum palm guide-propagation and management. . Intensified Social Forestry Project in Semi-arid Areas (ISFP) Technical guides Series No.2. IBSN: 9966-7110-4-X.

- Mullah, C. J. A. 2007. Distribution, Uses and Conservation status of Indigenous Dry land palms of Kenya. KEFRI News Bulletin. pp 19.
- Amwatta Mullah, C. J. Kyalo, E. Okamoto, E. and Auka, S. 2003. Seed handling, tree establishment and Management in the ASALs. SOFEM Technical Guideline for Extension Officers, Kitui, Kenya.
- Amwatta Mullah, C. J. Wanjiku, J. Oballa, P.O. and Langat, D. 2005. Tree management practices by farmers in Kenya: The current status and knowledge gaps. Guideline for extension workers in Kenya. pp22
- Amwatta Mullah, C. J. and Omollo, E. O. 2005. Socio-economic importance of doumpalm (Hyphaene compressa) in Turkwel Riverine Ecosystem. Indigenous Vegetation Project (IVP) Technical Report. pp 42.
- Amwatta Mullah C. J. and Orwe A.O. 2005. Large cuttings: a jump start for Itula (*Commifora baluensis*) planting in Ukambani. Kitui Regional Centre Newsletter Vol.1 Issue 1, April, 2005.
- Amwatta Mullah C. J. 1999. The disappearing doumpalm: a tree that meets contingencies for the Turkana people of Kenya. Dry land Biodiversity Newsletter N0.3, 1999.
- Mullah, C. J. A. 2011. PhD Thesis title: Disturbance, Regeneration and Invasion: Implications for Recovery of degraded montane forest in Kenya. Department of Ecology and Natural Resource Management, Norwegian University of Life sciences, Norway, ISBN: 978-82-757-1014-5.
- Mullah, C. J. A. 1992. MSc Thesis title: Adoption and adaption of Agroforestry Technologies: Socio-economic and Technical in western Kenya. Department of International Environment and Development Studies (Nogragric), Agricultural University of Norway, Norway.

Book chapters

- Mullah, C. J. A. and Omollo, E. O. 2006. Socio economic importance of doumpalm (Hyphaene compressa) in Turkaka riverine Ecosystems. United Nations development Program and Government of Kenya, Nairobi, Kenya. ISBN: 9966-776-02-8.
- Eriksen, S. Lind, J. Owuor, B. Gachathi, F. N. Mauta, W. and **Mullah, C.J. A**. 2004. The impact of conflict on household vulnerability to climate stress: evidence from Turkana and Kitui Districts in Kenya. In: Brockington, D and M Sheridan (eds.), Trees rain and politics. Trees rain and politics. Oxford University.

Additional Professional/consultancy Experience

- Mullah, C. J.A. Opiyo, J Bii, W. and Ojunga, S. (2017). Management of Invasive woody Species in Cherangany Ecosystem. Kenya's Water Towers Protection and Climate Change Mitigation and Adaptation (WaTER) Programme.
- Mullah, C. J. A. 2013. Management of invasive woody species in the degraded natural forest. Paper presented at Training Course for Forest Extension Officers at Kenya Forestry College, 8 April–29 May 2013, Kenya Forestry College, Londiani.
- Kari, K. Ørjan, T. and Mullah, C. J. A. 2007. Avskogging i øst Afrika og Madagaskar: Suksesjon, samfunnsstruktur, og artskomposisjon i et restauraringsperspektiv. Årsmelding INA, 20-23
- Amwatta Mullah, C. J. 2004. Conservation of Dry land palms of Kenya: needs and prospects. KEFRI, Kenya
- Amwatta Mullah, C. J. and Sigu, G. O. 2004. Mapping land use in Ganda, Goshi and Jilore locations of Malindi District, Kenya. A consultant Report for farm Forestry and Natural Resources Conservation Project around Arabuko-Sokoke-Goshi, Coast Province of Kenya. pp 18.

Papers presents

- Amwatta Mullah C.J. and Owuor B.O. 2005. Training workshop report on promotion of doum palm planting, management and marketing in Tharaka District, 12th -14th April 2005, Chiakariga Tharaka, Kenya. Pp34.
- Gachathi F. N. and Amwatta Mullah C. J. 2005. Endau Hilltop Forest: Its contributions to the local communities. Dissemination Workshop on Climatic adaptations as a livelihood struggle: Conflict and vulnerability among dry land populations in Kenya. KEFRI Kitui. 14th February 2005.
- Amwatta Mullah C. J. 2004. Appropriate tree establishment and management techniques for the dry lands. 10th Regional Course for Promotion of Social Forestry in Africa, 20th Sept-22nd Oct 2004, KEFRI Muguga, Kenya.
- Eriksen, S. J., Lind, B., Owuor, F., Gachathi, W., Mauta and Mullah, J. A. 2004. Conflict, vulnerability and adaptation around Endau Hilltop, Kitui, District. Vulnerability to climate stress: Local and Regional Perspectives, 27-28 January, World Agroforestry Centre Nairobi, 27-28 January, 2004
- Amwatta Mullah C. J. 2004. Appropriate tree establishment and management techniques. Special Regional Social Forestry Course Program. 12th Jan-19th Feb. 2004. KFERI Muguga Kenya.

- Amwatta Mullah C. J. 2004. Appropriate tree establishment and management techniques for the dry lands. 10th Regional Course for Promotion of Social Forestry in Africa, 20th Sept-22nd Oct 2004, KEFRI Muguga, Kenya.
- Amwatta Mullah C. J. 2004. Diversity of use of doumpalm (*Hyphaene compressa*) leaves in Kenya. RPSUD Regional Workshop 14th -17th November 2004, Nakuru, Kenya.
- Amwatta Mullah C. J. 2003. Research efforts in Propagation of *Melia volkensii*: A synthesis of the advances in propagation in Kitui, Kenya. Trees on-farm Network (TOFNET) stakeholders' workshop and Steering Committee meeting, 19th -22nd Nov.2003, ICRAF Headquarters, Nairobi, Kenya.
- Amwatta Mullah C. J. 2003. Distribution, impact of local use and regeneration of doum palm (*Hyphaene compressa*) in the dry lands of Kenya. Regional Workshop on Sustainable Biodiversity Management for reduced community vulnerability to Drought. 30th Sept -4th Oct. 2003. Lake Bogoria Kenya.
- Amwatta Mullah C. J. 2003. GIS application in Forestry Research: Experience of KEFRI. GIS application Awareness Creation Workshop, 17th -19th Nov.2003, CETRAD, Nanyuki, Kenya.
- Amwatta Mullah C. J. 2003. Doumpalm (*Hyphaene compressa*): A high value tree in the dry lands of Kenya. Poster. Scientific Writing Workshop, 7th -8th August 2003 NMK, Kenya.
- Amwatta Mullah C. J. 2002. The role of wild palms in dry lands agro forestry: The case of doum palm (*Hyphaene compressa*) in Kitui District. Regional Seminar on dry land Agro forestry in Eastern Africa, 20th -25th May, 2002, Mwingi, Kenya
- Amwatta Mullah, C. J. 1993. Preliminary assessment of the status of doumpalm (*Hyphaene compressa*) resources in Turkana District. A report to the LWF/UNHCR, Kakuma, Kenya. pp 24.

Other professional engagements

- 1) Appointed the KEFRI focal point for Forest Invasive Species Network for Africa (FISNA)-2020
- I contributed a list of useful dry land trees and shrubs in 'Maundu, P. and Tengnas, B. (Eds), 2005. Useful trees and shrubs for Kenya'. Technical Handbook No. 35. World Agroforestry Centre, Nairobi, Kenya.
- 3) Part-time lecturer external examiner, Department of Agroforestry and Rural development –University of Kabianga-Kenya (20013-16) Units taught

FOR 811R: Tree Physiology and Forest Ecology

AFF11F: Dryland Agroforestry

FOR 816E: Arid lands Forestry

Supervision of Post Graduate Students,

Ojunga, O.S. 2019-2022. Ph.D. thesis title: Extension of stage based projection matrices and its applications to population modelling of *Cestrum aurantiacum* in Mt Elgon Ecosystem. School of Biological, Mathematical and Actuarial Sciences. Jaramogi Oginga Odinga University of Science and Technology (JOOUST).

Oyugi, J. 2014. MSc thesis title: Mycorrhizal status and relative abundance of *Prunus africana*, *Hagenia abbysinica* and *Dombeya torrida* in Moist Afromontane (Southwest Mau) Forest. School of Natural Resource and Environmental Management. University of Kabianga.

Rono.K.D. 2015. MSc thesis title: Forest anthropogenic disturbance indicators and population structure of *Zanthoxylum gillettii* (De Wild Waterman) and *Prunus africana* (Hook. f.) Kalkman in South West Mau, Kenya. School Of Natural Resource and Environmental Management. University of Kabianga.

Guest lecture- Guest lecturer at Institutt for sociologi og samfunnsgeografi. University I Oslo. Undervisningsplan (SGO 2301-Vår 2008).04.03.2008-06.11.2008. Masters Course on Biodiversity and Nature Conservation.

SUCCESFULL FUND RAISING EFFORTS

I was part of the project team awarded £ 1,49,944.70 by European Union (KE/FED/024-208) on 'Kenya's Water Tower Protection and Climate Change Mitigation and Adaptation (WaTER) Programme in Mt. Elgon and Cherangany Forests. KEFRI was leader of Component IV of the project with overall aim to contribute to poverty reduction and sustainable livelihoods by applying scientific principles to inform design of community level actions and national policy decisions on rehabilitation and conservation in Cherangany and Mt. Elgon water towers.

I was part of project team awarded Ksh. 22,000,000 by World Bank on' Development, Validation And Promotion of Climate Smart Indigenous Chicken (IC) Technologies For Improved Productivity- KENYA CLIMATE SMART AGRICULTURE PROJECT (KCSAP CGS/CRGs-AD-2019).KEFRI was awarded Ksh. 2,91,650 to validate use of *Moringa oleifera* as source of protein for Chicken feed formulation.

RPSUD fellowship: I was awarded \$20,000 by the Research Programme on Sustainable Use of Dryland Biodiversity (RPSUD), to conduct a survey of the distribution, impact of local use and

regeneration of Hyphaene compressa (doumpalm) in the dry lands of Kenya. SIDA/SARECC RPSUD (1997-2001).

ADDITIONAL SKILLS AND INTERESTS

A. Computer literate in

- (i) Microsoft word for windows
- (ii) Excel for windows
- (iii) Power point

B. Membership in professional networks

- a. Society for Ecological Restoration
- b. International Palms Society
- c. Kenya Forestry Society
- d. International Association of Tropical Foresters
- e. Forest Invasive Species Network for Africa (FISNA)

C: Social activities

(a) Patron – Nyalunya youth football club

(b) Active member and sponsor of youth activities in agriculture and agro-processing-Nyakach

LANGUAGES

English-Fluent Kiswahili-Good

REFEREES

Dr. Gilbert Obwoyere	Prof. Kari Klanderud
Senior Lecturer	Senior Lecturer
Egerton University	Norwegian University of Life Sciences
Faculty of Environment and Resource Mgt	Faculty of Environmental Sciences and Natural
	Resource Management
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Dr. Gerald Eilu	Dr. Joseph Hitimana
Makerere University	Ag. Dean /Lecturer
Faculty of Forestry and Nature	University of Kabianga
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Signature.....

Date

January 2021