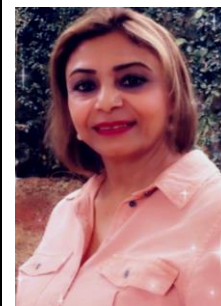


Curriculum Vitae for Najma Dharani (PhD)

1.1 PERSONAL PROFILE



1.1.1 Personal Details

Name : Najma Dharani (PhD.)
PF. No. : 7100
Department : Department of Plant Sciences
Contact Address : Kenyatta University,
P.O. Box 43844-00100, Nairobi,
Kenya
Email : dharani.najma@ku.ac.ke
Nationality : Kenyan
Gender : Female
Marital status : Married
Designation / Position : Senior Lecturer

Area of Specialization

- Plant/Environmental Ecology(Both aquatic & Terrestrial Ecology)
- Ethno-botany (Indigenous Useful Plants of East Africa)
- Conservation Biology (Biodiversity Conservation and Management)

Research Interests

- **Plant/Environmental Ecology:** Impact of Urbanization and Industrialization (Toxic metal pollution) on Biodiversity of different ecosystems (Aquatic & Terrestrial) and their Conservation and Management
- **Ethno Botanical Research**
 - Research on Medicinal Plants to prevent, treat and cure Human, Livestock and Poultry diseases. In addition, Ecology, Domestication, Utilization & Conservation of East African Indigenous Medicinal Plants.
 - Assessment of Ecological Distribution, Diversity, Abundance and Ethno-botanical Surveys of Indigenous Food Plants including their Utilization and Importance in food security, health, nutrition and their role in livelihoods of the various communities in East Africa.
- **Biodiversity Conservation and Management:** Distribution, ecology, morphology, economic and socio-economic and ecological significance and conservation status of East African Flora and Fauna
- **Land-use Dynamics:** Natural Resource Management & Conservation through

Reforestation by growing Indigenous Multipurpose Plant species (for timber, medicinal, vegetables, fodder and fruit/nuts), their cultivation and harvest techniques.

- **Principles of Evergreen and Conservation Agriculture** for sustainable farming Practices used in the East African Region for better land use dynamics, enhancing soil fertility, food security, livelihood and environmental resilience

Research Affiliations

Google Scholar: <https://scholar.google.com/citations?user=XHjE1e8AAAAJ&hl=en>

ORCID ID: <https://orcid.org/0000-0002-0315-131X>

Research Gate: https://www.researchgate.net/profile/N_Dharani

1.1.2 Academic & Professional Qualifications

- **PhD.** (Plant/Environmental Ecology)-2006-University of Nairobi, Kenya
- **M.Sc.** (Plant Morphogenesis)-1988-University of Karachi-Pakistan
- **B.Sc. Hons.** (Botany)-1986-University of Karachi-Pakistan

1.1.3 Other Qualifications & Skills

- Computer Graphic Designing- Graffins College Nairobi
- Computer Application packages - Graffins College Nairobi
- Business Communication Skills from British Council Nairobi
- Book Keeping and Accounts – Level 1 & 2- Pitman's, UK.
- Photography & Videography - from personal trainer

1.1.4 Employment History

- Oct. 17th, 2017 to-date “**Senior Lecturer**”, Kenyatta University, Department of Plant Sciences
- Jan. 16th, 2015 to 31st Aug. 2017 “**Senior Lecturer**”, Pwani University, Department of Environmental Sciences.
- April 5th, 2009 to 15th Jan. 2015 “**Lecturer**”, School of Environmental Sciences, Kenyatta University.
- Oct 12th 2008 to 5th April 2009 “**Lecturer**”, Dar es Salaam University College (DUCE), Department of Biological Sciences, Dar es Salaam, Tanzania.
- June 5th 2005 to Nov. 2019 “**Consultant- Research Scientist**”, World Agroforestry Centre, HQ, Nairobi.
- Dec. 2003 to May 2007 “**Part-time Lecturer**”, Department of Land Use Resource Management and Agriculture Technology (LARMAT), University of Nairobi.
- June 1993 to Dec. 2002 “**Administrator**” at Graffins College, Moi Avenue Nairobi, Kenya.
- Jan. 1990 to Feb. 1992 “**Lecturer in Botany**” at Fatima Jinnah Govt. Girls College, Karachi, Pakistan.

Postgraduate Teaching

Dynamics of Plant Communities; Marine Vegetation; Climate Change and Global Warming; Biodiversity Conservation; Natural Resource Management; Ecology of Agronomic Crops; Land Use Dynamics and Conservation

Undergraduate Teaching

Advanced Plant Ecology; Advanced Environmental Ecology; Biodiversity Conservation & principles; Conservation/Protected areas; Biodiversity and Conservation Biology; East African Flora and Fauna; Endangered Species; Dryland Agroforestry; Plant Taxonomy; Principles of Ethnobotany; Rangeland Ecology; Environmental Biology and Genetics

1.1.5 Achievements

- **Class Evaluation – Lecturer rating by Students**, I have consistently been rated between 90-100% on the average. This reflects my commitment in teaching and mentoring students.
- I have authored, “*Field Guide to common Trees and Shrubs of East Africa*”, it has been a great success. First edition published in 2002, 3rd Edition in 2019. All **seven** books (**Please refer to section 2.2**) that I have authored are used by Students, Researchers, Guides and Plant Enthusiasts.
- Four of my **book launches** between 2010 and 2015 organized by World Agroforestry Centre (ICRAF) Headquarters, Nairobi, hosted by National Museums of Kenya by Kenya Museum Society.
- From 1999 to 2019, I have been Interviewed and featured in Local News papers including **Nation, Standard, Star and East African Newspapers** on the basis of my conservation efforts and community services that have been provided from my published books and personal efforts.

1.2 PUBLICATIONS

1.2.1 Referred Journals

- Wanyera Francis, Mutugi Chira Robert, **Najma Dharani** and Gichuki Nathaniel (2021). Influence of tangible ecosystem goods encroachment on host community well-being: A case of Bwindi Impenetrable National Park, Uganda. African Journal of Environment and Natural Science Research.Vol. 04, Issue 04; Pp. 88-98. ISSN: 2689-9434
- Wanyera Francis, Mutugi Chira Robert, **Najma Dharani** and Gichuki Nathaniel (2021). Ecosystem degradation and its implications on regulating service. African Journal of Environment and Natural Science Research.Vol. 04, Issue 04; Pp. 74-87. ISSN: 2689-9434
- David Amakanga, Benards Okeyo and **Najma Dharani** (2021). The Assessment of Structure and Natural Regeneration Capacity of *Avicennia marina* and *Bruguiera gymnorhiza* Species of Mangroves in Mida Creek Kilifi County, Kenya. Int. J. Plant Anim. Environ. Sci. 11(2): 262-294. (DOI: 10.26502/ijpaes.202106).

- Ogola Kevin Omollo, **Najma Dharani** and Benards Okeyo (2021). Assessment of sequestration potential and biomass accumulation of managed mangrove plantations of Mida Creek, Kilifi County, Kenya. *Int. J. Plant Anim. Environ. Sci.* 11(2): 233-250. (DOI: 10.26502/ijpaes.202104).
- Godfrey Wafula, Mwakio Tole, **Najma Dharani** and Stanley Nadir (2020). Effectiveness of EPZ Wastewater Treatment Plant in reducing Pollutants discharged into River Athi, Kenya. *J. Envir Sci & Engineer.* B9: 261-276. Print: A (ISSN 2162-5298); Online: A (ISSN 2162-5301). Doi: 10.17265/2162-5263/2020.06.004.
- **Najma Dharani** (2020). A review of Phytochemical Constituents and Pharmacological Activities of Ethnomedicinal *Warburgia ugandensis* Sprague ssp. *ugandensis* in East Africa. *Pharma. J. Kenya.* Vol. 24, No.03; Pp 67-71. ISSN: 2411-6386.
- Hussein A. Aden and **Najma Dharani** (2019). Investigation of the Distribution and Abundance of Butterfly in the Nature Reserve of Arabuko Sokoke Forest Reserve, Kilifi County, Kenya. *Int J Plant Anim Environ Sci* 2019; 9 (4): 222-236. (DOI: 10.26502/ijpaes.008)
- Wanyera Francis, Kinyamario J., **Najma Dharani** and Robert M. Chira (2018). Ecotourism and local community activities on ecosystem changes in and around Volcanoes National Park, Rwanda. *Int. J.of Plt, Ani and Env. Sci. (IJPAES)*, Vol. 8, No. 3. ISSN-2231-4490 (DOI: 10.21276/Ijpaes).
- Wanyera Francis, Kinyamario J., **Najma Dharani** and Robert M. Chira (2018). Population dynamics and land-use changes around protected areas. A case of Bwindi Impenetrable National Park, Uganda. *Int. J.of Plt, Ani and Env. Sci. (IJPAES)*, Vol. 8, No. 3. ISSN-2231-4490 (DOI: 10.21276/Ijpaes).
- Carol J Rotich and **Najma Dharani** (2018). Species Distribution, Diversity and Conservation of Indigenous Medicinal Plants in Selected Areas of Baringo County, Kenya. *J. Chem. Bio. Phy. Sci.* Vol. 8, No. 3; 000-000. [DOI:10.24214/jcbps.B.8.3.000000.].
- **Najma Dharani** (2017). Review on Sea purslane (*Sesuvium portulacastrum* (L.) L.) - Halophyte, a promising Food and Medicinal plant of Kenyan Coast. *Pharma. J. Kenya.* Vol. 24, No 6. ISSN 2411-6386
- **Najma Dharani** (2017). Traditional Ethnomedicinal uses and phytochemical compounds of *Carissa spinarum* L. in East Africa: a review. *Pharm Journal - Published by Kenyatta University PharmacyStudents Association (KUPHSA).* Kenyatta University Press (KUP). PHARM J. Vol. 2, Issue, 1.
- **Najma Dharani** (2017). Traditional Ethnomedicinal uses, phytochemistry and pharmacological properties of *Balanites aegyptiaca* (L.) Del. in East Africa: a review. *Pharm Journal - Published by Kenyatta University PharmacyStudents Association (KUPHSA).* Kenyatta University Press (KUP). PHARM J. Vol. 2, Issue, 1.
- **Najma Dharani** (2016). A Review of Traditional Uses and Phytochemical Constituents of Indigenous *Syzygium* Species in East Africa. *Pharma. J. Kenya.* Vol. 22, No 4. ISSN 2411-6386.
- **Najma Dharani** (2016). A Review of Traditional Medicinal Uses and Phytochemical Constituents of Exotic *Syzygium* Species in East Africa. *Pharma. J. Kenya.* Vol. 22, No 4. ISSN 2411-6386.
- Demissew T. and **Najma Dharani** (2016). Assessment of the Ecological Distribution, Species Diversity and abundance of Medicinal Plants in Central Kajiado, Kajiado County, Kenya. *Int. J.of Plt, Ani and Env. Sci. IJPAES*, Volume-6, Issue-3, ISSN-2231-4490.

- Demissew Tsigemelak, **Najma Dharani**, Jenasio I Kinyamario, Samuel Kiboi (2016). The Utilization of Medicinal Plants by the Masaai community in arid lands of Kajiado County, Kenya. Int. J.of Plt, Ani and Env. Sci. IJPAES, Volume-6, Issue-3, ISSN-2231-4490.
- Christopher M. Ndolo, **Najma Dharani**, Katja K (2016). Socio-economic and Biophysical factors affecting tree richness and diversity in Machakos County, Eastern Kenya. Int. J.of Plt, Ani and Env. Sci. IJPAES, Volume-6, Issue-3, ISSN-2231-4490.
- Ermais A., **Najma Dharani**, Mathews P. (2012). The indigenous knowledge of the Maasai Ethnoveterinary diagnostic skills. J. Anim. Ecol., 16(1): 43-48.
- **Najma Dharani**, J. M. Onyari., J. I. Kinyamario., D. M. Maina., K. M. Mavuti (2010). Distribution of Zn and Cd levels in Soils and *Acacia xanthophloea* Benth, from Lake Nakuru National Park, Kenya. Bull. of Env. Cont. Toxi, Springer New York, USA. Vol, 3: 318 – 323.
- **Najma Dharani**, J. I. Kinyamario., Peter W. Wagacha., A. J. Rodrigues (2008). Browsing impact of large herbivores on *Acacia xanthophloea* Benth in Lake Nakuru National Park, Kenya. African Journal of Ecology-Blackwell Publishing Ltd-UK. Vol, 47: 184 – 191.
- **Najma Dharani**, John Onyari, David Maina, Kenneth M. Mavuti (2007). The Distribution of Cu and Pb levels in Soils and *Acacia xanthophloea* Benth, from Lake Nakuru National Park, Kenya. Bull. of Env. Cont. Toxi, Springer New York, USA. Vol, 79: 172 – 177
- **Najma Dharani**, Jenasio. I. Kinyamario, John Onyari (2006). Structure and Composition of *Acacia xanthophloea* woodland in Lake Nakuru National Park, Kenya. African Journal of Ecology-Blackwell Publishing Ltd-UK. Vol, 44: 523 – 530
- **Najma Dharani** (2006). The Debarking of *Acacia xanthophloea* trees in Lake Nakuru National Park, Kenya. SWARA – East African Wildlife Society-Kenya. EAWL, Vol, 29: 42 – 45.
- **Najma Dharani** and Mahmood, A. (1992): Histology of Root nodules in *Trigonella foenum-graecum* L. Pak. J. Ecol, 6: 50 – 67.

1.2.2 University & Tertiary Levels Scholarly Books

- **Najma Dharani** and Abiy Yenesew (2022). Medicinal Plants of East Africa-*An Illustrated Guide*. Draft Second Edition. Submitted to Struik Random House Publishers, Cape Town, South Africa for publishing and printing. Printed version will be available end of June 2022.
- **Najma Dharani**, McMullin S, Stadlmayr B, Kigathi R, Kindt R, Ng'ethe E, Jamnadass R, Kehlenbeck K. (2022). Food trees of Kenya: Volume 1 – Fruit trees and shrubs of Kenya: delivering food, nutrition, livelihood and landscape benefits. Nairobi: World Agroforestry Centre (ICRAF), Nairobi-Kenya.. ISBN: 978-9966-108-51-7. Online version will be available in May 2022.
- **Najma Dharani** (2019). Field Guide to common Trees and Shrubs of East Africa (Revised- 3rd Edition). Struik Random House Publishers, Cape Town, South Africa. ISBN: 978 1 77007 888 8.
- **Dharani N**, Yenesew A, Aynekulu E, Twei B, Jamnadass R (2015). Ethno veterinary Medicine in East Africa. World Agro forestry Centre, (ICRAF), Nairobi-Kenya. ISBN: 978-92-9059-335-5.

- **Najma Dharani (2011).** Field Guide to common Trees and Shrubs of East Africa (Revised-2nd Edition). Struik Random House Publishers, Cape Town, South Africa. ISBN: 978 1 77007 888 8.
- **Dharani N, Rukunga G, Yenesew A, Mbora A, Mwaura L, Dawson I, Jamnadass R (2010).** Common Antimalarial Trees and Shrubs of East Africa –A description of species and a guide to cultivation and conservation through use. World Agro forestry Centre, (ICRAF), Nairobi-Kenya. ISBN: 978 92 9059 238 9.
- **Najma Dharani and Abiy Yenesew (2010).** Medicinal Plants of East Africa-*An Illustrated Guide*. Published by Najma Dharani in association with Drongo publishing, Nairobi-Kenya. ISBN: 978-9966-05-167-8.
- **Najma Dharani (2006).** Field Guide to *Acacias* of East Africa. Struik Random House Publishers, Cape Town, South Africa. ISBN: 9781770071742.
- **Najma Dharani (2002).** Field Guide to common Trees and Shrubs of East Africa (1st Edition). Struik Random House Publishers, Cape Town, South Africa. ISBN: 978 1 77007 888 8.

1.2.3 Other Publications (Book chapters, Motivational book)

- **2012: (1st Edition):** *Guide book to Nairobi City Park*. Contributed plant photographs and a chapter and proof reading of the book
- **2012 (2nd Edition):** *Guide book to Nairobi Arboretum*. Contributed plant photographs and a chapter and proof reading of the book
- **Najma Dharani (2002).** Life’s Little Secrets. A Guide to a Successful Living. Focus Books Publishers, Kenya. ISBN: 9966-882-66-9. (**Motivational book**)
- **2001 (1st Edition):** *Guide book to Nairobi Arboretum*. Contributed plant photographs and a chapter and proof reading of the book

1.2.4 Conferences, Workshops and Seminars Attended

- 9th March 2022. Workshop on zoom: Restoration of degraded lands in Sub-Saharan Ecosystems. Organized by Regreening Africa-EU-CIFOR-ICRAF.
- 4th Nov. 2021. Financing Forest Action: Investing in Forests to Address the Climate Crisis”. UN-REDD Programme-COP 26. Online seminar. https://www.youtube.com/watch?v=eBqto3102Oo&ab_channel=UN-REDDProgramme.
- 22nd October 2021. Stakeholders’ Consultation Workshop on “Diagnostic Study on the Application of Herbal and Traditional Medicine in the Prevention and Therapy of COVID and other Diseases in the East African Community. Pharm-Bio Technology and Traditional Medicine Centre, Mbarara University of Science and Technology. Sarova Stanely Hotel, Nairobi, Kenya.
- 9th to 16th July 2021. Kenya National Landscape Restoration Scaling Virtual Conference. Catalyzing action for landscape restoration. Organized by Regreening Africa (ICRAF).
- 2nd to 3rd June 2021. Restoring Africa’s Drylands. Accelerating action on the ground. Virtual Conference organized by Global Landscapes Forum (GLF) Africa.

- 27th May 2021. Private sector engagement in Kenya's landscape restoration efforts. Webinar seminar. Organized by Regreening Africa (ICRAF-Nairobi).
- 25th March 2021. The Roots of the FMNR Movement in Kenya. Webinar seminar. Organized by Regreening Africa (ICRAF-Nairobi).
- 11th to 12th Feb. 2021. Conservation & Tourism for Improved Livelihoods. Virtual conference organised by Wildlife Clubs of Kenya in collaboration with IUCN Commission on Education and Communication.
- 28th Jan 2021 (2.00 -5.00pm). Face to face-Training on Turn-it-in, Creating Orchid and Google Scholar accounts. Organized by School of pure and Applied Sciences (SPAS) in collaboration with the Chief University Librarian. Kenyatta University.
- 27th Jan 2021. Virtual Learning Experience: Youth Power in Restoration. Youth empowerment for engagement in restoration. Conference organized by Regreening Africa, CIFOR, World Agroforestry Centre.
- 17th Sept. 2020. The Article Publishing Process: An Elsevier Workshop on Zoom. ELSEVIER.
- 8th Sept. 2020. Training on Blended Learning Online Facilitation. Organized zoom workshop by Digital School of Kenyatta University.
<https://zoom.us/j/96850258914?pwd=LzdOYWVqZWJZT1Jnb29PZ1NGalhaQT09>
- 3rd to 17th July 2020 (on zoom): Training of Trainers: How to use Moodle/Camtasia for creating and animating an online training course for Kenyatta University –Plant Sciences Department. <https://training.coleacp.org/course/view.php?id=328>
- 10th June, 2020 (on zoom). Training on On-line module writing Zoom meeting by Dr. Rhoda Gitonga, Digital School-Kenyatta University. [Video slides](#) attached
- 27th February, 2020: Launch of the indigenous vegetables (Multi-stakeholders partnership) at Agriculture Training Centre, Soilo- Nakuru.
- 29th October 2019: Programme for Internationalization of Research and Resource Mobilization for Impact. Kenyatta University- BSSC, Room 14
- 30th to 31st October 2019: Annual Carnivore Conference. Kenya Wildlife Services Headquarters, Nairobi-Kenya
- November 26, 2019: A workshop on SWITCH Africa Green's Green to Grow project: an overview of a revenue generation approach for sustainable consumption and production dissemination in Kenya. Main Conference Hall ICRAF Headquarters, Nairobi, Kenya.
- 17th to 19th April 2018: 2nd National Conservation Agriculture Conference, Kenya. FAO Conference at Safari Park Hotel, Nairobi, KENYA.
- 17TH to 19TH March 2017: Conference on Tourism and Hospitality in Mwingi organized by Kitui County Government. Mwingi-Kitui County.
- 10th- 11th May, 2016: 1st National Conservation Agriculture Conference, Kenya. FAO Conference at Safari Park Hotel, Nairobi
- 31 – 1st April 2015: workshop on the Adoption of Agroforestry and Contribution to the Sustainable Development Outcomes in Kenya. ICRAF- Headquarters, Nairobi-Kenya.
- 21 – 22 Feb 2013: IFAD fruit project inception workshop. JKUIAT-Thika.
- 10 – 13 April 2012: BEATING FAMINE-sustainable food security through land regeneration in a changing climate. ICRAF- Headquarters, Nairobi-Kenya
- 13th - 15th May 2013: International Conference on Forests for Food Security and Nutrition-Enhancing the benefits for rural people. (FAO-ROME, ITALY)
- 27th - 28th June 2013: East Africa Agriculture for Nutrition and Health (A4NH). Workshop Report. Strategy development for trees for nutrition and health: priority

areas, opportunities, challenges and entry points for research, Lord Eroll, Runda, Nairobi-Kenya.

- 11th - 17th October 2012: Tree Diversity Day – 11th Conference of the Parties to the Convention on Biological Diversity, Hyderabad, India.
- 25th - 29th June 2012: Forests and Trees: “SERVING THE PEOPLE OF AFRICA AND THE WORLD”. IUFRO-FORNESSA REGIONAL CONGRESS & ITTO/AFF FOREST POLICY DAY
- 03-07 Sep 2011: Science Forum 2011. ICRAF- Headquarters, Nairobi-Kenya.
- 8 – 11 August 2011: 14th NAPRECA symposium and AAMPS Ethnoveterinary Medicine Symposium. ICIPE – Nairobi, Kenya
- 27th – 29th April 2011: Regional Workshop To Support The Preparation of The State of The World’s Forest Genetic Resources in Africa. FAO, ICRAF and Biodiversity International. ICRAF- Headquarters, Nairobi-Kenya.
- 15th March 2010: Charcoal Seminar. ICRAF- Headquarters, Nairobi-Kenya.
- 17th - 18th March 2011: Inception Workshop. Towards an Evergreen Agriculture in Africa: Scaling-up Conservation Agriculture with Trees for improved Livelihoods and Environmental resilience in Eastern and Southern Africa. ICRAF- Headquarters, Nairobi-Kenya.
- 15 – 17 September 2010: International conference on Biodiversity, Land Use and Climate Change towards a National Conservation framework. ICRAF- Headquarters, Nairobi-Kenya.

1.3 QUALITY TEACHING, LEARNING AND MENTORSHIP

1.3.1 Student Evaluations

- 2019/2020 –SCB 407 (Biodiversity and Conservation Biology) 99.08% (A)
- 2019/2020 –SCB 400 (4th Year Research Projects) 99.08% (A)
- 2019/2020 –SCB 309 (Conservation Areas in Kenya) 85.06% (B)
- 2019/2020 –SBT 861 (Dynamics of Plant Communities) 100% (A)
- 2018/2019 –SCB 309 (Conservation Areas in Kenya) 94.08% (A)
- 2014/2015 –ENS 230 (East African Flora and Fauna) 97% (A)
- 2013/2014 –ENS 241 (Endangered Species) 94% (A)
- 2012/2013 – ENS 132 (Environmental Biology) 88% (B)
- 2012/2013 – ERC 412 (Mountain Ecology) 97% (A)
- 2012/2013 – EFA 519 (Ecology of Agronomic Crops) 100% (A)
- 2012/2013 – ENS 132 (Environmental Biology) 83% (B)
- 2010/2011 – PC Evaluation Results-Ranking of all Dept. Teaching Staff (A)

1.3.2 Ongoing MSc. Students Supervision

- **Rita Mutalya (MG20/PU/36010/16)**. Assessment of The Ecological Distribution, - Species Diversity, Abundance and Utilization of Medicinal Plants in Selected Areas of Kilifi County, Kenya. (MSc. Student- Dept. of Env. Sci. Pwani University –**Data analysis**)
- **Alex Mutinda Musyoki (A145/CTY/22529/2011)**. Assessment Of Pollination And Polyculture Effect On Productivity Of Pulses And Indigenous Vegetables And

Associated Indigenous Knowledge In Muranga County, Kenya (MSc. Student- Dept. of Agriculture, Kenyatta University – **Data collection**)

- **Eric Muthama (A145/CTY/20152/2020)**. To assess the impacts of climate smart agricultural practices on yield and pest population of African Indigenous Vegetables (AIVs) and pulses in Murang'a South, Murang'a County. (MSc. Student- Dept. of Agriculture Kenyatta University –**Data collection**).
- **Tabitha Magero (N50/21206/2014)**. Determination of pollination deficit in coffee plantation at Kilimambogo, Kenya. (MSc. Student- Dept. of Env. Sci. KU-**Thesis submission and paper writing stages**)
- **Linda Sogot (MG20/PU/36049/19)**. Evaluation A study of butterfly species diversity and abundance in the Vipingo quarry Reserveland of Bamburi Cement, Kilifi County-Kenya. (MSc. Student- Dept. of Env. Sci. Pwani University – **Proposal development stage**).

1.3.3 Supervision of Postgraduate Students

1.3.3.1 MASTERS (Completed)

- **Ogola Kevin Omollo (I56/37485/2017)**. Assessment of sequestration potential and biomass accumulation in managed mangrove plantations of Mida Creek, Kilifi County Kenya. (MSc. Dept. of Plant Science, Kenyatta University (**Student graduated on 17th December 2021**)).
- **Godfrey Wabwile Wafula (N50/PUC/2040/12)**. Assessment of the influence of industrial effluent on the performance of Mavoko sewer treatment ponds, Machakos County, Kenya. (MSc. Pwani University, Dept. of Env. Sci. (**Student graduated on 15th July 2021**)).
- **David A. Erasto (MG20/PU/36088/16)**. Assessment of Structure and Natural regeneration of *Avicenia marina* and *Bruguiera gymnorrhiza* species of mangroves in Mida Creek, Kilifi County, Kenya. (MSc. Pwani University, Dept. of Env. Sci. Student defended his thesis on 15th December 2021). (**Student graduated on 15th July 2021**).
- **Hussein Aden (N50/PU/6065/15)**. Investigation of the impact of butterfly farming and harvesting on wild butterfly population in the nature reserve of Arabuko Sokoke Forest. (Pwani University, Dept. of Env. Sci.). (**Student graduated on 15th July 2021**)
- **Mutunga Christopher Ndolo (N50/21206/2010)**. Socio-economic and biophysical factors affecting tree diversity on farms in Mwala, Kangundo and Machakos divisions, Machakos county, Kenya. (KU-Dept. of Environmental Science). (**graduated in August 2017**).
- **Carol Jeruto Rotich (N50/CTY/PT/23013/11)**. Distribution, diversity and integration of traditional knowledge on indigenous medicinal plants and their contribution to primary healthcare and livelihoods of rural communities in Marigat district, Kenya (Kenyatta University-Dept. of Environmental Sciences). (**Student graduated in Dec. 2015**).
- **Demissew T. Gebreyohannes (N50/12313/2009)**. Distribution, Diversity and Integration of Traditional Knowledge on Indigenous Medicinal Plants and their

contribution to primary healthcare and livelihoods of rural communities in Central Kajiado, Kenya (University of Nairobi- Dept. of Botany). **(Student graduated in August 2013).**

- **Raphael Wanjala Wanyonyi (N50/15/427/2008).** Impact of Human Population on Land Degradation in Lugari District, Western Province, Kenya. (KU- Dept. of Environmental Sciences). **(Student graduated in December 2012).**
- **Pamella Wambui Kunyuga (N50/12342/2009).** Assessment of Genetic Diversity of Sorghum bicolor landraces from Tanzania using SSR markers: Implications for conservation (KU-Dept. of Environmental Sciences). **(Student graduated in December 2012).**

1.3.3.2 PhD (Completed)

- **Wanyera John Francis (180/92021/2013).** Climate variability and anthropogenic impacts on ecosystems and eco-tourism in protected areas: a case of Bwindi impenetrable national park, Uganda. Department of Botany-University of Nairobi. **(Student graduated in Dec. 2020).**
- **Kathiai Joseph Karauka (N50/ 85/1360/2009).** Integrated of Trees with Food Crops in Different Agro-ecological Systems: A comparative Analysis of Soil fertility in Kenya. KU- Dept. of Environmental Sciences. **(Student graduated in Dec. 2016).**

1.4 PROFESSIONAL/CONSULTANCY

1.4.1 Editorial Boards & Peer Review

- **Sept. 2019 to date: Coordinator** - Journal of Pure and Applied Sciences (AJPAS) – KU (SPAS journal)
- **Sept. 2019 to date: Editor-in Chief** - Journal of Pure and Applied Sciences (AJPAS) – KU (SPAS journal)
<https://journal.ku.ac.ke/index.php/AJPAS>
<https://journal.ku.ac.ke/index.php/AJPAS/about/submissions>
<http://www.ku.ac.ke/index.php/ku/item/1905-call-for-papers-african-journal-of-pure-and-applied-sciences-ajpas>
<http://spas.ku.ac.ke/>
- **Sept. 2019 to date:** Editorial Board Member, Subject Editor, Proof reader- Journal of Pure and Applied Sciences (AJPAS) – KU (SPAS journal)
- **2009 to 2012:** Manuscript reviewer for -African Journal of Ecology (AJE)

1.4.2 Consulting for Organizations and Institutions

- **August to December 2018:** Report on Preliminary Botanical Survey including Identification, Suitability and availability of Indigenous/Local Plant Species within and around Kampala for the Aga Khan University Hospital site in Nakawa – Kampala
- **29th November to 2nd December 2017:** BOTANICAL SURVEY – Audit & Recommendations of Vegetation and Landscape for Aga Khan Academy-Mombasa
- **5th August 2014 to 15th Nov 2018:** Principal Investigator/Coordinator of the project,

- “Food trees of Kenya (ICRAF, IFAD funded project)
- **October 2015 to October 2016:** Ministry of tourism and Natural resources: Designing of Mutomo Hills Plant Sanctuary (MHPS), Reptile park & Botanic Garden, Kitui County.
- **14th June 2014 to 11th July 2015:** Evergreen Agriculture Curriculum Development for Universities in Eastern and Southern Africa (Funded by ICRAF –East Africa and ANAFE Project)
- **March 2010 to May 2015:** Principal Investigator/Coordinator of the project. Research on Ethno-veterinary medicinal plants to cure livestock and poultry diseases. Funded to World Agroforestry Centre by IFAD, EU and World Bank. (Partners: Ministry of Livestock (GoK), University of Nairobi, ICRAF & Kenyatta University).
- **March 2012:** Mara Base camp Foundation (Contribution to Master Plan for Mara Naboisho Conservancy)
- **January 2011 to December 2013:** Principal Investigator/Coordinator of the project. Evergreen Agriculture in Eastern & Southern Africa (CAWT-SIDA Project funded to ICRAF East Africa Programme, funded by IFAD, EU, World Bank)
- **January 2008 to July 2010:** Principal Investigator/ Coordinator of the project. Anti-malarial Trees and Shrubs of East Africa. Funded to World Agroforestry Centre by IFAD, EU and World Bank (Partners KEMRI, University of Nairobi, GoK, ICRAF & Kenyatta University).

1.4.3 External Examiner (MSc. & PhD. Thesis)

- **Ms Lynn Njeri Njuguna (August 2020).** The impact of the feeding behaviour of elephants on tree species regeneration in Arabuko Sokoke Forest ecosystem in Kilifi County, Kenya. (MSc. Thesis- Department of Environmental Sciences, Pwani University)
- **Ms Rael Nelly Nyanchama (August 2020).** Examining the abundance and nesting behaviour of golden rumped elephant shrews (*Rhynchocyon chrysophygus*) in Arabuko-Sokoke forest, Kilifi County. (MSc. Thesis- Department of Environmental Sciences, Pwani University)
- **Ms Maryanne M. Gitari (July 2019):** Assessment of Leopard (*Panthera pardus*) and Spotted Hyena (*Crocuta crocuta*) diet and prey base along Burguret trail in Mt. Kenya forest, Kenya. (MSc. Thesis- School of Biological Sciences, University of Nairobi)
- **Charles N. Nyamwamu (March 2019):** Abundance and Diversity of Weed species in Farms in Kisii Central sub County, Western Kenya. (MSc. Thesis- School of Biological Sciences, Dept. of Botany, JKUAT)
- **William K. Ruto (October 2018):** Influence of Human Population and Land–Use changes on environmental quality of a Riparian Ecosystem: A case study of Saiwa Swamp, Trans Nzoia County, Kenya. (PhD Thesis- College of Biological and Physical Sciences, University of Nairobi)
- **Bernard Ochieng (July 2018):** Evaluating the population status and foraging ecology of sable antelope (*Hippotragus Niger roosevolti – Heller*) in Shimba Hill National Reserve, Kenya. (MSc. Thesis- Department of Environmental Sciences, Pwani University)
- **Mr. Felix S. Abdalla (June 2014):** Comparative autecology of tree species using leaf and wood traits within nine forests of the Taita Hills. (MSc. Thesis- School of Biological Sciences, University of Nairobi)

- **Mr. Simon F. Nguru (December 2013):** Developing strategies for restoration of a disturbed site in Kakamega forest using *Arbuscular Mycorrhiza* Fungi (AMF) Developing strategies for restoration of a disturbed site in Kakamega forest using *Arbuscular Mycorrhiza* Fungi (AMF). (MSc. Thesis- School of Biological Sciences, University of Nairobi)

1.4.4 Networks /Collaborations

- World Agroforestry Centre (ICRAF, HQ, Nairobi)
- University of Nairobi; Pwani University (Kilifi); Jomo Kenyatta University of Agriculture and Technology (JKUAT); University of Makerere (Kampala); Aga Khan University, Nairobi & Kampala; University of South Africa (UNISA); University of Leicester, UK, Walter University of Science and Technology, South Africa; Maseno University; Bomet University College. United Nations Environmental Programme (UNEP)

1.5 ADMINISTRATIVE AND OTHER RESPONSIBILITIES

1.5.1 School (SPAS) & Departmental of Plant Sciences- Administrative Duties:

- **Sept. 2019 - to-date:** Coordinator, Editor-in Chief, Editorial Board Member, Subject editor and proofreader – African Journal of Pure and Applied Sciences (AJPAS), Kenyatta University
- **2020/2021:** Chairmain-Botanical Gardens & Greenhouse Committee
- **2021:** Examination Moderation Committee Member
- **2019/ 2021:** Board of Postgraduate Studies (BPS committee-Member), Dept. of Plant Sciences, Kenyatta
- **2017-2019:** Examination Moderation Committee (Member), Board of postgraduate Committee Member-Dept.of Plant Sciences, Kenyatta University
- **2017/2018:** Examination Moderation Committee (Member), Board of postgraduate Committee Member-Dept.of Plant Sciences, Kenyatta University

1.5.2 Internal Examiner

- **16th January 2020:** Effects of Organic and Inorganic mulching on weeds, diseases, growth and yield of tomato (*Solanum lycopersicum*) in Bungoma County, Kenya. (MSc thesis-Kenyatta University)

- **Chebet Gladys (February 2019):** Abundance, Survival and Conservation Status of *Prunus africana* (Hook.f) Kalkm. in Western Mau forest, Kenya. (MSc thesis-Kenyatta University)
- **Seif L. Mohamed (June 2017):** Assessment of the Structural variability of Mangrove forests in the Kenyan Coast. (MSc thesis-Pwani University)
- **Kanundu M. Ngumbao (June 2017):** Assessment of potential distribution of small carnivores and their prey in Arabuko Sokoke Game Reserve along the Kenyan Coast. (MSc thesis-Pwani University)
- **Edwin Nyamba Mwashinga (September 2016):** Effects of land –based activities and sources on fresh Water reseources: A case study of selected heavy metal contamination in river Mkurumudzi, Kwale County. (MSc thesis-Pwani University)
- **Agnes Samba Kiunga (July 2016):** Phytoremediation of Kipevu waste water using Vetiver Grass. (MSc thesis-Pwani University)
- **Sheila Mumbi Asweli Wamugi (July 2016):** Evaluation of Effects of Climate Change and Adaption Strategies in Small Holder Farming Systems. (MSc thesis-Pwani University)
- **Abdul Majeed Omar Said (March 2016):** Assessment of the structure and biomass accumulation in mangrove forest of Kilifi Creek, Kenya. (MSc thesis-Pwani University)
- **Esther W. Mugi (January 2014):** Integrating indigenou and conventional knowledge-based climate forecasts for farmers enhanced adaption to climate variability in Tharaka-Nithi and Kitui counties. (MSc thesis-Kenyatta University)
- **Mr Ngumi David Muigai (November 2011):** Germination and growth performance of selected provenances of *Osyris lanceolata* in Kenya. (MSc thesis-Kenyatta University)
- **Mr Samuel Jacob Muthuri Kirera (November 2011):** Analysis of some physical soil properties on water availability in Ngaciuma-Kinyaritha sub-catchment, Upper Tana Basin, Kenya. (MSc thesis-Kenyatta University)

1.5.3 Kenyatta University Examination Board and Senate Member for Msc And Phd Defences

- **Beatrice Muthoni Guchu (MSc. 30th July 2020 – Defence on zoom).** *In Vitro* Antioxidant Activities of Methanolic Extracts of *Caesalpinia volkensii*, *Acacia hockii* and *Vernonia lasiopus* (Board Member)
- **Mr Samuel G. Onyoyo (MSc. 4th February 2020):** Efficacy of selected Kenyan plants used in Traditional Medicine for the treatment of Malaria and Fever (Board Member)
- **Ms Margaret Wawuda Mwakima (PhD. April 2013):** Determinants of the biodiversity conservation-tourism nexus in the buffer zone of Amboseli Biosphere Reserve, Kenya. (Board Member)
- **Ms Regina Nthambi Maingi (MSc. October 2010):** Opportunities and Challenges of scaling up *Jatropha curcas* L. for environmental management and enhanced livelihoods in Kibwezi, Kenya. (Senate Member)

1.5.4 Teaching Workload

- 1) Teaching workload 2020-2021 1st Semester
- 2) Teaching workload 2020-2021 2nd Semester (Preparing Online modules)
- 3) Teaching workload 2019-2020 2nd Semester.
- 4) Teaching workload 2019- 2020 1st Semester
- 5) Teaching workload 2018-2019 2nd Semester.
- 6) Teaching workload 2018-2019 1st Semester

1.6 COMMUNITY ENGAGEMENTS AND OTHER CONTRIBUTIONS

1.6.1 Ongoing Research

February 2019 to date: My current research is on the following topic;
“Assessment of Ecological Distribution, Diversity, Abundance and Ethno-botanical Surveys of Indigenous Food Plants including their Utilization and Importance in food security, health, nutrition and livelihoods of various communities in East Africa”.

1.6.2 Research Funding

- **Jan.29th 2021:** Rebecca Karanja, **Najma Dharani**, Everlyn Kakai: **KU-Vice Chancellors' Research and Innovation Grant, 2020-2021.** Proposal-“Strengthening Productivity of African indigenous vegetables and Pulses through Climate smart practices, enhanced pollination and value addition for Improved resilience and Food Security (A case study of Murangá South Sub-County)” have been selected for funding.
- **Najma Dharani**, Katja K., Ramni Jamnadass: **(Aug. 2014 to November 2019):** Food trees of Kenya–Vol. 1 Fruit Trees and shrub (ICRAF, IFAD funded project). Currently working on publication of the book.
- **Najma Dharani**, Abiy Yenesew, Ramni Jamnadass: **(March 2010 to May 2015):** Research on Ethno-veterinary medicinal plants to cure livestock and poultry diseases Funded to World Agroforestry Centre by IFAD, EU and World Bank. (Partners: Ministry of Livestock (GoK), University of Nairobi, ICRAF & Kenyatta University). (Book has been published).
- **Najma Dharani**, Jeremais Mowo, and Dennis Garrity: **(January 2011 to December 2013):** Evergreen Agriculture in Eastern & Southern Africa. CAWT-SIDA Project funded to ICRAF East Africa Programme, funded by IFAD, EU, World Bank.
- **Najma Dharani**, Rukunga G., Abiy yenesew, Mbora Anne, Mwaura Lucy, Dawson Ian, Jamnadass Ramni: **(January 2008 to July 2010):** Research on Anti-malarial Trees and Shrubs of East Africa. Funded to World Agroforestry Centre by IFAD, EU and World Bank. (Partners KEMRI, University of Nairobi, GoK, ICRAF & Kenyatta University). (Book has been published).

1.6.3 Community Outreach

- **23rd July 2021-**Kenya Professional Safari Guides Association (KPSGA). Paid Exam fees for 10 guides who sat for examination.

- **20th May 2021:** Donation of books (Reference books for Plant Sciences) to Chief University Librarian, Kenyatta University, Main campus.
- **23rd Nov. 2020:** Organized a day trip to Nairobi Arboretum for my 4th Year, BSc. Conservation Biology students (KU) for Tree/Nature walk and team building.
- **21st Feb. 2020:** Organized for my 4th Year, BSc. Biodiversity & Conservation Biology students, a half day clean up and weeding exercise at Nairobi City Park in conjunction with Friends of Nairobi City Park (FoNCP) and Nairobi City Council. After the clean up, students were given guided Nature walk at Nairobi City Park. <http://friendsofcitypark.org/city-park-visit-by-kenyatta-university-students/>
- **Feb. to Nov. 2018:** Actively participated in Rehabilitation programme (Indigenous Tree Planting) for Nairobi City Park. Also participated in MASTER PLAN for Nairobi city Park Rehabilitation document joint effort of Friends of Nairobi City Park (FoNCP), Nairobi City Council and Nairobi County Government.
- **March 2010 to October 2019:**
 - Discussions and conducted workshop in the field with small scale farmers in Kenya, Uganda, Malawi, Zambia, Ethiopia, Rwanda Tanzania on Principles of Evergreen Agriculture and Conservation Agriculture for high yield food crop productivity and Environmental Resilience. Also have discussions with farmers on significance and uses and domestication and conservation of indigenous vegetables, fruits and seeds/nuts.
 - I have also been conducting workshops and giving lectures/discussions to Pastoral communities (farmers, secondary school teachers and students) in East Africa on the importance of medicinal plants and their uses to cure human and livestock diseases and domestication of medicinal plants; importance of flora & fauna, consequences of deforestation, land degradation etc. Conduct practical workshop in the field---teaching nursery practices, provide them with seeds, seedlings, bags to plant seedlings, sustainable wild seed harvesting, seedling management and importance of the natural resource management.
- **May 2016 to June 2017:** Conducted 4 beach clean-up exercises at Mida Creek-Kilifi County with Pwani University (BSc.and MSc. students together with Mida Creek community groups). We collected tons of trash from the beach.
- **2012: (1st Edition):** *Guide book to Nairobi City Park*. Contributed plant photographs for the guide book on City Park and proof reading of the book .
- **2012 (2nd Edition):** *Guide book to Nairobi Arboretum*. Contributed a chapter for the guide book on Nairobi Arboretum Plants with photographs and proof reading of the book.
- **2011 to date:** Provided linkages with funding institutions for M.Sc. & PhD Environmental Sciences and Plant Sciences (KU, Pwani and University of Nairobi) students for tuition payment and giving them field Research financial (100%) support during their second year of research for MSc students and two years field Research financial (100%) support for PhD students. So far five students have been benefited. Currently 2 MSc. students have been funded. Also have been giving financial support to some 4th year students every year for their field research.
- **2006 to 2012:** Komba (Wildlife Club of Kenya Magazine for Secondary School Children). Contributing articles on Medicinal and other useful plants for high school children's magazine.
- **1998 to 2002:** Participated in MASTER PLAN for Nairobi Arboretum (Rehabilitation document) to be build Educational centre, recreational activities,

events, biodiversity conservation-joint effort of Friends of Nairobi Arboretum (FONA), Kenya Forest Service and Nairobi City Council.

- **2001 (1st Edition):** *Guide book to Nairobi Arboretum*. Contributed a chapter for the guide book on Nairobi Arboretum Plants with photographs and proof reading of the book.

1.6.4 Professional Affiliation and Portfolios

- World Agroforestry Centre (ICRAF-HQ)
- United Nations Environmental Programme (UNEP)
- International Union for Conservation of Nature (IUCN)

1.6.5 Affiliation to the National Professional Environmental Protection Bodies

- FONA – (Friends of Nairobi Arboretum)- Member
- NATURE KENYA- National Museums of Kenya (connecting nature & people)-Member
- FONAP – (Friends of Nairobi National Park) Member
- FoCP - (Friends of City Park) - Member
- Kenya Museum Society (KMS) – Member

1.6.6 Recognitions Awards and Honours

- 8th March 2011: Letter of Appreciation by Vice Chancellor, Kenyatta University
- May 2002: Awarded, His Highness Prince Aga Khan Awards for Excellence category, “*Science, Media and Technology*” (1st Runner up) for the year 2002.
- 9th July 1990: Awarded, Merit Citation for MSc. Degree (First class, 3rd position, out of 57 students) by Vice Chancellor, University of Karachi-Pakistan)
- 9th Dec 1990: Awarded, Merit Certificate for MSc. Degree (First class, 3rd position out of 57 students) by Aga Khan Education services- Pakistan.

1.7 REFEREES

- **Professor Anthony Rodrigues**
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- **Dr. Dennis Garrity**
Former Director General (ICRAF)
Current: UN Drylands Ambassador
Senior Fellow, World Agroforestry Centre
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