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**Plenary of the Intergovernmental Science-Policy
Platform on Biodiversity and Ecosystem Services
First session**

Bonn, Germany, 21-26 January 2013

Item 6 of the provisional agenda*

**Nomination and selection of the members
of the Multidisciplinary Expert Panel**

**Compilation of curricula vitae of proposed members from
African States of the Multidisciplinary Expert Panel**

Note by the secretariat

The annex to the present note, prepared by the secretariat of the United Nations Environment Programme, compiles the full curricula vitae of the candidates proposed as members from African States of the Multidisciplinary Expert Panel, as submitted by Members of the Platform. The annex has been reproduced as received, without formal editing.

The candidates are the following:

Sebsebe Demissew, Ethiopia
Alfred Apau Oteng Yeboah, Ghana
Beatrice Nangami Khayota, Kenya
Matiku Paul Musengy'a, Kenya
Agnes Wangui N. Muthumbi, Kenya
Gideon H. N. Nyamasyo, Kenya
Stella Wattimah Simiyu, Kenya
Caroline O. Akachuku, Nigeria
Callistus Akosim, Nigeria
Augustine Ibukunoluwa Ayodele, Nigeria
Patricia Donli, Nigeria
Susi Sumaila Sanusi, Nigeria
Luthando Dziba, South Africa
Albert S. van Jaarsveld, South Africa
Carmel Mbizvo, South Africa
Cecil Machena, Zimbabwe
Rodger Lewis Mpande, Zimbabwe

* IPBES/1/1.



Annex

Compilation of curricula vitae of proposed members from African States of the Multidisciplinary Expert Panel

CURRICULUM VITAE

Name: Sebsebe Demissew

Position: Professor

Nationality: Ethiopian

Date of Birth: 14 June 1953

Sex: Male

Marital Status: Married

ADDRESS

National Herbarium of Ethiopia, Faculty of Life Sciences, College of Natural Sciences, Addis Ababa University, P.O. Box 3434, Addis Ababa, Ethiopia.
Telephone: 251-111-232654; 251-911-247616 (mobile);
Fax: 251-111-236769;
e-mail: s_demissew@yahoo.com; sebsebed@bio.aau.edu.et

EDUCATION

B Sc. in General Biology, Biology Department, Science Faculty, Addis Ababa University, Addis Ababa, Ethiopia, 1977.
M Sc. in Botany with emphasis in ecology and taxonomy from the Biology Department, Science Faculty, Addis Ababa University, Addis Ababa, Ethiopia, 1980.
PhD in Systematic Botany from the Institute of Systematic Botany, Uppsala University, Uppsala, Sweden, 1985.

EMPLOYMENT RECORD

Employer: Addis Ababa University (from 1977 to present);

Position Held:

- Professor of Botany, Since 1998 at the Faculty of Life Sciences
- Associate Professor/ Assistant Professor/ Lecturer/Assistant Lecturer of Biology Department, Science Faculty (1978 to 1998).
- Dean of the Science Faculty (1996-2000)
- Keeper of the National Herbarium and Leader of the Ethiopian Flora Project (1996 to date)
- Member of the University Senate (1996-2000)
- Standing Committee Member of both the Faculty of Life Sciences and College of Natural Sciences Since Oct. 2011.

KEY AREAS OF EXPERIENCE AND PARTICIPATION

- **Biodiversity** - Worked over three decades on the documentation of the Flora of Ethiopia and Eritrea (the Plant diversity both wild and cultivated) including the Indigenous Knowledge on the use of plants by indigenous communities.
- Also participated on Biodiversity studies in other African countries: Usambara in Tanzania; Mefou and Mt. Kupe in Cameroon; Weichaw in Ghana; Cape Region in South Africa and Kibale Forest in Uganda .

- **Environment** – Engaged in understanding the causes and effects of changes in the environment with main focus on the natural resources.
- Participated in consultancy work for environmental study on selection of routes for ETHIOPIA – KENYA POWER INTERCONNECTION PROJECT as part of Tropics-Gama Consultants for the Ethiopian Electric Light & Power Authority, 2011.
- Participated in consultancy work for environmental pre-feasibility study of Beko-Abo hydropower project – for the Ministry of Water Resources as part of the NORPLAN-NORCONSULT in association with Tropics and Shebelle Engineering PLC in 2010.
- Participated in consultancy work for Environmental aspects for the Woreda Integrated Development Programs (WIDP) for Ethiopian Rural Road Authority in Seven Woredas in the Southern Region as part of Addis Anteneh and Associates Consulting Firm between 2007-2009.
- Participated in consultancy work on Biodiversity Survey of Wembera-Guba-Gelego Road as part of NIRAS, in joint venture with Roughton International and Beza Consulting for the Ethiopian Road Authority in 2007.
- Participated in consultancy work in the preparation of the Biodiversity Strategy and Action Plan Document for the Institute of Biodiversity Conservation in 2005.
- Participated in consultancy work on Environmental Impact Assessment of Project on the Tekeze Hydro-power for Ethiopian Water Resources Authority in 1998.
- Participated in consultancy work on the preparation of the National Biosafety for the Environmental Protection Authority in 2002.
- Member of the task force that draft policies and strategies for the conservation and development of the plant genetic resources of Ethiopia 1992-1994.
- Member of a consultant group that prepared a national report for the United Nations Conference on Environment and Development held in Rio, Brazil in 1992.
- Chairman of the National Organizing Committee for the First International Conference on Aids in Ethiopia held in Addis Ababa, between 7-10 Nov. 1999.

Evaluation of Institutions

- Review the South African National Biodiversity Institute in 2004 and to evaluate the implementation of the NBI Corporate Strategic Plan 2000 – 2004, which involved visiting three botanic gardens in South Africa for the South African Government.
- Review the Royal Botanic Gardens Scientific activities 1995-1999 and to evaluate the implementation of the Corporate Strategic Plan 2000 – 2005, which involved visiting all the scientific

units of the Royal Botanic Gardens and Wakerhurst in 1999 for the British Government.

Teaching and Post-graduate Training

- Teaching botany and natural resources for postgraduate programs in Addis Ababa University
- Advised over 50 MSc and 7 PhD students in areas of Biodiversity and Environment.
- Serving as an external examiner for the University of Lesotho since 2007.

MEMBERSHIP OF PROFESSIONAL ASSOCIATIONS

- Member of the Council of the International Association for Plant Taxonomy for the period 2011-2017.
- Fellow & Board Member of the Ethiopian Academy of Sciences, since April 2010.
- Received Honorary Degree of Doctor of Science from the University of Nottingham, UK in July 2010.
- Special professor of Biodiversity in the School of Biosciences, University of Nottingham since June 2010.
- Member of the Royal Danish Academic of Sciences and Letters since 10 April 2008.
- Honorary Research Fellow of the Royal Botanic Gardens, Kew, UK since Dec. 2002.
- Member of the Regional Working Group on Wetlands within Nile Basin initiative 2007-2010
- Member of the Biological Society of Ethiopia since 1990 and served as President 1996-2000.
- Member of the International Association of Plant Taxonomists since 1985.
- Member of the AETFAT (Association pour l'Etude Taxonomique de la Flore d'Afrique Tropicale), since 1984 and the Secretary General, 2000-2003.
- Member of the Natural Products Research Network for Eastern and Central Africa (NAPRECA), since 1984.
- Member of the Mountain Society, since 1987.
- Member of the Ethiopian Wildlife and Natural History Society, since 1987.
- Member of the National Heritage Trust since 1994 and served as Vice President, 1998-2004.
- Member of the International Species Plantarum Steering Committee, since 1999

CONFERENCES AND WORKSHOPS (Since 2000)

- Distinguished Keiser Lectures in Life Sciences from 26-28 October, 2011 at Ohio Northern University (enclosed). This is still posted on the web as [Keiser Lecture 2011 | Ohio Northern University](http://www.onu.edu/academics/college_of_arts_sciences/areas) (http://www.onu.edu/academics/college_of_arts_sciences/areas)
- The 18th International Botanical Congress, Nomenclature Section and meeting of the Council of the International Association of Plant Taxonomy, Melbourne, Australia, 18-24 July 2011.
- The 4th Global Botanic Gardens Congress to discuss achievements in relation to the Global Strategy for Plant Conservation (GSPC) and to consolidate ideas on the way, at the National Botanic Gardens of Ireland in Dublin, Ireland, 14 to 18 June 2010.
- Science and development of government policy post-Global Strategy for Plant Conservation: lessons for the future in Jodrell, Royal Botanic Gardens, Kew; UK, 21 to 22 June 2010.
- Workshop on Access and Benefit Sharing, held in Nairobi, Kenya, 9-12 March 09.
- Biodiversity Conference, Nairobi, Kenya, 10-12 September 2008.
- The Flora of Thailand. Meeting, held in Copenhagen, Denmark, 18-20 Aug. 2008.
- The 4th International Conference: The Comparative Biology of Monocotyledons and the 5th International Symposium: Grass Systematics and Evolution, held in Copenhagen, Denmark, 11-15 Aug. 2008.
- The 18th International AETFAT (Association pour l'Etude Taxonomique de la Flore d'Afrique

- Tropicale) Congress, held in Yaounde, Cameroun, 26 February–2 March 2007.
- Meeting on Environment and Biodiversity, held at the Center for Development Research (ZEF), University of Bonn, Germany, 14–16 March 2005.
 - Workshop on Holistic Foundations for Assessment and Regulation of Genetic Engineering and Genetically Modified Organisms" in Tromsø, Norway, August - September 2005.
 - International Conference on Biosafety, held in Muscat-Oman, 21–23 February 2005.
 - The 7th Convention on Biological Diversity held in Kuala Lumpur Malaysia in 2003.
 - The 17th International AETFAT Congress, held in Addis Ababa, Ethiopia, 21–26 September, 2003 (organizer and chairman).
 - International Symposium, Plant Diversity and Complexity Patterns, held at The Royal Danish Academy of Sciences and Letters, Copenhagen, 25–28 May 2003.
 - Meeting of the Global Biodiversity Information Facility on Outreach and Capacity Building, held in Pretoria, South Africa, 13–16 July 2002.
 - Workshop on the Strategic Plan for the Convention of Biological Diversity, held in Seychelles, 2001.
 - The 6th Convention on Biological Diversity held in the Haig, the Netherlands in 2000.
 - Symposium on the Access and Benefit Sharing in Biological Resources, held in Cartagena, Colombia, 3–12 November, 2000.
 - The 16th International AETFAT congress, held in Brussels, Belgium, 26 August–2 September 2000.

COUNTRIES OF (FIELDWORK) EXPERIENCE

In Africa: Cameroon, Ethiopia, Ghana, Kenya, Malawi, Tanzania, South Africa and Uganda;
 In Asia: Sri Lanka
 In Europe: Denmark, Norway and Sweden
 In the USA: Florida and N. Carolina

LANGUAGES

English: reading, writing and speaking – excellent
 Amharic: reading, writing and speaking – excellent (National language)
 Gurage: reading, writing and speaking – excellent (Local language)
 French: reading - fair; writing and speaking – poor
 Swedish: reading – good; writing and speaking – fair

LIST OF PUBLICATIONS

Books

1. Agegnehu Waasse, Kifle Dagne & **Sebsebe Demissew** (2012). Some Ethiopian species of *Chlorophytum* and *Anthericum* Karyotype Analysis. Lap Lambert Academic Publishing. Pp. 1-79.
2. Friis, I., **Sebsebe Demissew** & van Bruegel, P. (2010). Atlas of the Potential vegetation of Ethiopia. Royal Danish Academy of Sciences and Letters. *Det Kongelige Danske Videnskabernes Selskab. Biol. Skr.* 58: 1-307; 29 plates, 41 figures.
3. **Sebsebe Demissew** & Nordal, I. (2010). Aloes and other Lilies of Ethiopia and Eritrea. 2nd Edition. Shama Books, Addis Ababa. 351 pages.

4. Nigist Asfaw & **Sebsebe Demissew** (2009). Aromatic Plants of Ethiopia. Shama Books, Addis Ababa. 258 pages.
5. **Sebsebe Demissew**, Phillip Cribb & Finn Rasmussen (2004). Field Guide to the Ethiopian Orchids. Royal Botanic Gardens, Kew, Richmond Surrey, UK. 300 pages.
6. **Sebsebe Demissew**, Inger Nordal & Odd Stabbetorp (2003): Flowers of Ethiopia and Eritrea: aloes and other lilies. Shama Books, Addis Ababa. 227 pages.
7. Lillesø, J. B., van Breugel, P., Kindt, R., Bingham, M., **Demissew, S.**, Dudley, C., Friis, I., Gachathi, F., Kalema, J., Mbago, F., Minani, V., Moshi, H., Mulumba, J., Namaganda, M., Ndangalasi, H., Ruffo, C., Jamnadass, R. & Gaudal, L. O. V. (2011). 61 ed. Forest & Landscape, University of Copenhagen. 155 p. (Working Papers; 61). Potential Natural Vegetation of Eastern Africa (Ethiopia, Kenya, Malawi, Rwanda, Tanzania, Uganda and Zambia). Volume 1: The Atlas.
8. Kindt, R., van Breugel, P., Lillesø, J. B., Bingham, M., **Demissew, S.**, Dudley, C., Friis, I., Gachathi, F., Kalema, J., Mbago, F., Minani, V., Moshi, H., Mulumba, J., Namaganda, M., Ndangalasi, H., Ruffo, C., Jamnadass, R. & Gaudal, L. O. V. 2011 62 ed. Forest & Landscape, University of Copenhagen. 232 p. (Working Papers; 62). Potential Natural Vegetation of Eastern Africa (Ethiopia, Kenya, Malawi, Rwanda, Tanzania, Uganda and Zambia). VOLUME 2: Description and Tree Species Composition for Forest Potential Natural Vegetation types.
9. Kindt, R., van Breugel, P., Lillesø, J. B., Bingham, M., **Demissew, S.**, Dudley, C., Friis, I., Gachathi, F., Kalema, J., Mbago, F., Minani, V., Moshi, H., Mulumba, J., Namaganda, M., Ndangalasi, H., Ruffo, C., Jamnadass, R. & Gaudal, L. O. V. 2011 63 ed. Forest & Landscape, University of Copenhagen. 176 p. (Working Paper; 63). Potential Natural Vegetation of Eastern Africa (Ethiopia, Kenya, Malawi, Rwanda, Tanzania, Uganda and Zambia). VOLUME 3: Description and Tree Species Composition for Woodland and Wooded Grassland Potential Natural Vegetation Types.
10. Kindt, R., van Breugel, P., Lillesø, J. B., Bingham, M., **Demissew, S.**, Dudley, C., Friis, I., Gachathi, F., Kalema, J., Mbago, F., Minani, V., Moshi, H., Mulumba, J., Namaganda, M., Ndangalasi, H., Ruffo, C., Jamnadass, R. & Gaudal, L. O. V. 2011 64 ed. Forest & Landscape, University of Copenhagen. 110 p. (Working Papers; 64). Potential Natural Vegetation of Eastern Africa (Ethiopia, Kenya, Malawi, Rwanda, Tanzania, Uganda and Zambia). VOLUME 4: Description and Tree Species Composition for Bushland and Thicket Potential Natural Vegetation Types.
11. Kindt, R., Lillesø, J. B., van Breugel, P., Bingham, M., **Demissew, S.**, Dudley, C., Friis, I., Gachathi, F., Kalema, J., Mbago, F., Minani, V., Moshi, H., Mulumba, J., Namaganda, M., Ndangalasi, H., Ruffo, C., Jamnadass, R. & Gaudal, L. O. V. 2011 65 ed. Forest & Landscape, University of Copenhagen. 131 p. (Working Papers; 65). Potential Natural Vegetation of Eastern Africa (Ethiopia, Kenya, Malawi, Rwanda, Tanzania, Uganda and Zambia). VOLUME 5: Description and Tree Species Composition for Other Potential Natural Vegetation Types (Vegetation Types other than Forests, Woodlands, Wooded Grasslands, Bushlands and Thickets).
12. van Breugel, P., Kindt, R., Lillesø, J. B., Bingham, M., **Demissew, S.**, Dudley, C., Friis, I., Gachathi, F., Kalema, J., Mbago, F., Minani, V., Moshi, H., Mulumba, J., Namaganda, M., Ndangalasi, H., Ruffo, C., Védaste, M., Jamnadass, R. & Gaudal, L. O. V. 2011 68 ed. Forest & Landscape, University of Copenhagen. 139 p. (Working Papers; 68). Potential Natural Vegetation of Eastern Africa (Ethiopia, Kenya,

Malawi, Rwanda, Tanzania, Uganda and Zambia). VOLUME 6: An Overview of The Methods and Material Used to Develop The Map.

13. van Breugel, P., Kindt, R., Lillesø, J. B., Bingham, M., **Demissew, S.**, Dudley, C., Friis, I., Gachathi, F., Kalema, J., Mbago, F., Minani, V., Moshi, H., Mulumba, J., Namaganda, M., Ndangalasi, H., Ruffo, C., Jamnadass, R. & Graudal, L. O. V. 2011 69 ed. Forest & Landscape, University of Copenhagen. 63 p. (Working Papers; 69). Potential Natural Vegetation of Eastern Africa (Ethiopia, Kenya, Malawi, Rwanda, Tanzania, Uganda and Zambia). VOLUME 7: Projected Distributions of Potential Natural Vegetation Types and Two Important Agroforestry Species (*Prunus Africana* and *Warburgia Ugandensis*) for Six Possible Future Climates.

Chapter in Books

14. Gedion Asfaw, Kifle Lemma Woldesemayat & **Sebsebe Demissew** (2007). Ethiopia: Protecting Nature in a developing decentralized country. In: Environmental Governance and Decentralization, Albert Breton, Giorgio Brosio, Silvana Dalmazzone and Giovanna Garrone (eds). Pp: 111-139.

Scientific articles in Peer Reviewed Journals,

1. Wendawek Abebe Mengesha, **Sebsebe Demissew**, M. F. Fay, R. J. Smith, I. Nordal & P. Wilkin (2012). *Genetic diversity and population structure of Guinea yams and their wild relatives in South and South West Ethiopia as revealed by microsatellite markers*. Genet Resour Crop Evol DOI 10.1007/s10722-012-9856-0.
2. Solomon Benor, **Sebsebe Demissew**, Karl Hammer and Frank R. Blattner (2012). Genetic diversity and relationships in *Corchorus olitorius* (Malvaceae s.l.) inferred from molecular and morphological data. Genet. Resour. Crop. Evol. 59:1125-1146. DOI 10.1007/s10722-011-9748-8.
3. Tinsae Bahru, Zemedet Asfaw & Sebsebe Demissew (2012). Indigenous Knowledge on Plant Species of Material Culture (Construction, Traditional Arts & Handicrafts) used by the Afar & Oromo Nations in & Around the Awash National Park, Ethiopia. Global Journal of Human Social Science. Geography & Environmental GeoSciences. Volume 12 Issue 11 Version 1.0 Year 2012. Online ISSN: 2249-460x & Print ISSN: 0975-587X.
4. **Sebsebe Demissew**, Friis, I. Tesfaye Awas, Nordal, I., Wilkin, P., Weber, O. and Bachman, S. (2011). Four new species of Aloe (Aloaceae) from Ethiopia, with notes on the ethics of describing new taxa from foreign countries. Kew Bull. 66 (1): 111-121.
5. Tinsae Bahru, Zemedet Asfaw and **Sebsebe Demissew** (2011). Variation of indigenous botanical knowledge versus social characteristics between the Afar and Oromo nations in and around the semi-arid Awash national park, Ethiopia. Ethiop. J. Appl. Sci. Technol. 2(1): 75 - 90 (2011).
6. Tamene Yohannes, Tesfaye Awas and **Sebsebe Demissew** (2011) Survey and documentation of the potential and actual invasive alien plant species and other biological threats to biodiversity in Awash National Park, Ethiopia. Manag. Biol. Invasions 2: 3-14.
7. **Sebsebe Demissew** (2011). How has Government policy post-Global Strategy for Plant Conservation

- impacted on science? The Ethiopian perspective. *Botanical Journal of the Linnean Society* **166**:310–325. With 1 figure
8. Tesfaye Awas, Zemedu Asfaw, Inger Nordal and **Sebsebe Demissew** (2010). Ethnobotany of Berta and Gumuz people in western Ethiopia. *Biodiversity* **11** (3&4): 45-53.
 9. Solomon Benor, Blattner, F.R., **Sebsebe Demissew** & Hammer, K. (2010). Collection and ethnobotanical investigation of *Corchorus* species in Ethiopia: potential leafy vegetables for dry regions. *Genet Resour Crop Evol* **57**: 293-306.
 10. **Sebsebe Demissew** & Friis, I. (2009). The vegetation of Ethiopia. In: I. Hedberg, I. Friis and E. Person (eds.). *The Flora of Ethiopia and Eritrea*, Vol. 8: 27-32. Addis Ababa, Ethiopia and Uppsala, Sweden.
 11. **Sebsebe Demissew** & R. Mill. (2009). Revision of the genus *Seddera* (Convolvulaceae). *Kew Bull.* **64** (2): 197 – 233.
 12. Deroin, T. & **Sebsebe Demissew** (2009). The genus *Seddera* Hochst. (Convolvulaceae) in Madagascar. *Adansonia sér.* **3**, 31 (1): 207 – 214.
 13. Schmitt, C.B., Denich, M., **Sebsebe Demissew**, Friis, I. & Boehmer, H.J. (2009). Floristic diversity in fragmented Afromontane rainforests: Altitudinal variation and conservation importance. *Applied Vegetation Science* **11**: 1–14, 2009.
 14. Tesfaye Awas, Inger Nordal and **Sebsebe Demissew** (2009). Plant communities of the woodland vegetation of Benishangul Gumuz national regional state, western Ethiopia. *Ethiopian Journal of Natural Resources*. 2009. **11** (2): 169–193.
 15. Feyera Senbeta, Tadesse Woldemariam, Manfred Denich, and **Sebsebe Demissew** (2009). The need for conservation of Afromontane rainforests with the occurrence of wild *Coffea arabica* populations in Ethiopia. In: **Gökçeşu, H., 2009 (Editor), Proceedings of the International Conference on Environment: Survival and Sustainability**. Nicosia (Lefkoşa), Turkish Republic of Northern Cyprus: Educational Foundation of Near East University. 10 volumes, LXXVI, 5498, XIV pages. Pp. 475-486. [ISBN: Volume 2: 978-975-8359-54-7].
 16. Paul Wilkin, A. Muthama Muasya, Hannah Banks, Carol A. Furness, Kai Vollesen, Odile Weber and **Sebsebe Demissew** (2009). A New Species of Yam from Kenya, *Dioscorea kituiensis*: Pollen Morphology, Conservation Status, and Speciation. *Systematic Botany* (2009), **34**(4): pp. 652–659.
 17. Tesfaye H Bekalo, **Sebsebe D Woodmatas** & Zemedu A Woldemariam (2009). An ethnobotanical study of medicinal plants used by local people in the lowlands of Konta Special Woreda, southern nations, nationalities and peoples regional state, Ethiopia. *Journal of Ethnobiology and Ethnomedicine* 2009, **5**:26 doi:10.1186/1746-4269-5-26.
 18. Getachew Tadesse, Tamirat Bekele & **Sebsebe Demissew** (2008). Dryland woody vegetation along an altitudinal gradient on the eastern escarpment of Welo, Ethiopia. *SINET: Ethiop. J. Sci.* **31**(1): **43-54**.
 19. Hermann, C., Cribb, **Sebsebe Demissew** (2007). The Orchid Flora of Benishangul-Gumuz (Western Ethiopia): An Ecological and Phenological Study. *SELBYANA* **28**(2): **123-136**.
 20. Feyera Senbetta, Manfred Denich, Hans Juergn Boehmer, Tadesse Woldemariam, Demel Teketay & **Sebsebe Demissew** (2007). Wild *Coffea arabica* L. in the Afromontane Rainforests of Ethiopia: distribution, Ecology and Conservation. *SINET: Ethiop. J. Sci.* **30**(1): 13-24.
 21. Feyera Senbetta, Tadesse Woldemariam, **Sebsebe Demissew** & Manfred Denich, (2007). Floristic Diversity and Composition of Sheko Forest. *Ethiopian Journ. Of Biological Sciences* **6**(1): 11-42.
 22. Hermann, C., Cribb, **Sebsebe Demissew** (2007). The Orchid Flora of Benishangul-Gumuz (Western

- Ethiopia): An Ecological and Phenological Study. **SELBYANA 28(2):**
23. **Sebsebe Demissew** (2006). *Convolvulaceae: Hildebrandtia, Cladostigma, Seddera*. In: Thulin, M. (ed.). **Flora of Somalia, Vol. 3: 223-231**. Royal Botanic Gardens, Kew.
 24. Feyera Senbetta, Cribb, P. and **Sebsebe Demissew** (2006). *Vanilla imperialis*, a new record of Orchidaceae from Ethiopia. *Kew Bull.* 61: 439-441.
 25. Abate Ayalew, Tamirat Bekele & **Sebsebe Demissew** (2006). The Undifferentiated Afromontane forest of Denkoro in the central Highland of Ethiopia: a floristic and structural Analysis. *SINET: Ethiop. J. Sci.* 29 (1): 45-56.
 26. Feyera Senbetta, Schmitt, C., Denich, M., **Sebsebe Demissew**, Vlek, P.L., Preisinger, H., Tadesse Woldemariam & Demel Teketay. (2005). The diversity and distribution of lianas in the Afromontane rain forests of Ethiopia. **Diversity and Distributions 11: 443-452.**
 27. **Sebsebe Demissew**, Nordal, I., Hermann, C., Friis, B., Tesfaye Awas & Stabbetorp, O. 2005. Diversity and endemism of the western Ethiopian escarpment – a preliminary comparison with other areas of the Horn of Africa. **Biol. Skr. 5: 315-330.**
 28. Tilahun Tekelehaimanot, Endashaw Bekele, **Sebsebe Demissew** & Nordal, I. 2005. Isoenzyme analysis of five endemic and one widespread *Kniphofia* species (Asphodelaceae) of Ethiopia. **SINET: Eth. J. Sc. 27 (2): 143-152.**
 29. Luckow, M., Hughes, C., Schrire, B., Winter, P., Fagg, C., Fortunato, R., Hurter, J., Rico, L., Breteler, F.J., Bruneau, A., Caccavari, M., Craven, L., Crisp, M., Delgado S.A., **Demissew, S.**, Doyle, J.J., Grether, R., Harris, S., Herendeen, P.S., Hernández, H.M., Hirsch, A.M., Jobson, R., Klitgaard, B.B., Labat, J.-N., Lock, M., MacKinder, B., Pfeil, B., Simpson, B.B., Smith, G.F., Sousa, M., Timberlake, J., van der Maesen, J.G., Van Wyk, A.E., Vorster, P., Willis, C.K., Wieringa, J.J. & Wojciechowski, M.F. 2005. *Acacia* : the case against moving the type to Australia. *Taxon* 54: 513–519.
 30. Teshome Sormessa, Demel Teketay & **Sebsebe Demissew**. 2004. Ecological study of the vegetation in Gamo Gofa zone, southern Ethiopia. *Tropical Ecology* (45(2): 209-221.
 31. **Sebsebe Demissew** (2004). *CYCLOCHEILACEAE*. In: Kubitzki, K. (Ed.). *The Families and Genera of Vascular Plants* 8: 60-62. Springer-Verlag, Berlin, Heidelberg & New York.
 32. **Sebsebe Demissew & Nordal, I. (2004).** *Pancratium centrale* (= *Mizonia centralis* a rare Central African species discovered in Ethiopia. **Kew Bull. 59: 117-121.**
 33. Teshome Sormessa & **Sebsebe Demissew**. 2004. Some uses of Plants by the Benna, Tsemay and Zeise people, Southern Ethiopia. *Ethiopian Journal of Natural resources* 4(1): 107-122.
 34. Cribb, P.J., Hermann, C. & **Sebsebe Demissew** (2002). New Records of Orchids in Ethiopia. **Lindleyana 17 (4): 178-188.**
 35. Minassie Gashaw, Michelsen, A., Friis, I., Jensen, M., **Sebsebe Demissew** & Zerihun Woldu (2002). *Post-fire regeneration strategies and tree bark resistance to heating in frequently burning tropical savanna woodlands and grasslands in Ethiopia.* **Nord. J. Bot. 22: 19-33.**
 36. **Nordal, I. & Sebsebe Demissew (2002).** *Crinum bambusetum*, a new species of Amaryllidaceae from North East Africa. *Kew Bull.* 57: 465-469.
 37. Tesfaye Awas, Tamirat Bekele & **Sebsebe Demissew** (2001). An Ecological Study of the Vegetation of Gambella Region, Southwestern Ethiopia. *SINET: Ethiop. J. Sci.* 24(2): 213-228.
 38. **Sebsebe Demissew** (2001). A synopsis of the genus *Merremia* (Convolvulaceae) in the Flora of Ethiopia **Kew Bull. 56(4): 931-943.**

39. Ib Friis, Sue Edwards, Ensermu Kelbessa & **Sebsebe Demissew** (2001). Diversity and endemism in the flora of Ethiopia and Eritrea – what do the published Flora volumes tell us? **Biol. Skr. 54: 399-438.**
40. Ib Friis & **Sebsebe Demissew** (2001). Vegetation maps of Ethiopia and Eritrea. A review of existing maps and the need for a new map for the Flora of Ethiopia and Eritrea. **Biol. Skr. 54: 399-438.**
41. Inger Nordal, **Sebsebe Demissew** and Odd Stabbetorp (2001). Endemism in groups of Ethiopian geophytes ('Liliiflorae'). **Biol. Skr. 54: 247-258.**
42. **Sebsebe Demissew**, Inger Nordal and Odd Stabbetorp (2001). Endemism and patterns of distribution of the genus *Aloe* (Aloaceae) in the flora of Ethiopia and Eritrea.). **Biol. Skr. 54: 233-246.**
43. **Sebsebe Demissew** & M. G. Gilbert (2000). *A new species of Aloe (Aloaceae) from SW Ethiopia.* **Kew Bull. 55(3): 683 - 686.**
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 12. **Sebsebe Demissew** (2000). *Tiliaceae*. In: Thulin, M. (ed.). **Flora of Somalia, Vol. 2: 5-21.** Royal Botanic Gardens, Kew.
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5. **Sebsebe Demissew**, Friis, I., Nordal, I. & Bürger, A-M. (2006). Disjunctions in the African Flora as seen from the Flora of Ethiopia and Eritrea In: S.A. Ghazanfar & H. Bentjee (eds.), *Taxonomy and ecology of African plants, their conservation and sustainable use*, pp. 247-258. Royal Botanic Gardens, Kew.
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9. Ensermu Kelbessa, **Sebsebe Demissew**, Zenihun Woldu and Sue Edwards (1992). *Some Threatened Endemic Plants of Ethiopia*. In: Sue Edwards & Zemedu Asfaw (eds.) *The Status of Some Plant Resources in parts of Tropical Africa. NAPRECA Monograph Series No. 2: 35-55*.
10. **Sebsebe Demissew** (1989). *Preliminary Taxonomic Investigations of the genus Aloe (Asphodelaceae) in Ethiopia. Proceedings of the third NAPRECA Symposium on Natural Products and their Application held in Arusha, Tanzania*, pp: 157-176.

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11. **Sebsebe Demissew** (1980). "A study on the structure of a montane forest - The Menagesha State Forest". **M. Sc. Thesis**, Addis Abeba University, Addis Abeba. (mimeographed).

CURRICULUM VITAE

NAME: Alfred Apau Oteng-Yeboah

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EDUCATIONAL BACKGROUND

BSc Ghana 1968

PhD Edinburgh 1972

PROFESSIONAL EXPERIENCE IN TEACHING AND RESEARCH

- Demonstrator, Univ. of Cape Coast - 1968-1969
- Attended 2-weeks course on University Teaching, University of London 1971
- Appointed Lecturer in Botany, University of Cape Coast December 1972
- Attended 6-month course on Resources in Higher Education, the British Council, London July to December 1975
- Appointed and promoted Senior Lecturer in Botany, Usman Danfodio University, Sokoto (formerly University of Sokoto) 1 September 1981
- Promoted Reader in Botany, Usman Danfodio University, Sokoto October 1986
- Appointed Senior Lecturer and later promoted Reader in Botany, Moi University, Eldoret, Kenya December 1987 and 1988 respectively
- Participated in a 2-week workshop on staff development in Higher Education: improving teaching and learning at Moi University April 1989 sponsored by the German Foundation for International Development DSE at Mombasa, Kenya

- Appointed Senior Lecturer and later promoted Professor of Botany University of Ghana, Legon 1st October 1989 and September 1992 respectively

PREVIOUS POSITIONS HELD

- ♦ Head of Department of Botany, Usman Danfodio University, Sokoto, Nigeria, 1983-1985
- ♦ Dean, Faculty of Science, Usman Danfodio University, Sokoto, Nigeria, July 1985-1987
- ♦ Acting Head of Department, Dep. of Botany, Moi University September 1989 to July 1990
- ♦ Head of Department of Botany, University of Ghana, Legon May 1992 to August 1997
- ♦ Deputy Director-General at the Council for Scientific and Industrial Research (CSIR-Ghana) from January 1998 to August 2006 in charge of national co-ordination of Environment and Health sector research.

CURRENT POSITION

On post-retirement contract at the Department of Botany, University of Ghana, Legon

MAJOR RESPONSIBILITIES UP TO DATE

National experiences:

1. Chairman, Management Board Water Research Institute (CSIR), 1999 to August 2006
2. Chairman, Management Board Forestry Research Institute of Ghana (CSIR), 1999 to 2006
3. Chairman, Management Board Soil Research Institute (CSIR), 1999 to 2006
4. Chairman, Management Board Plant Genetic Resources Centre, Bunso (CSIR), 1999 to 2006
5. Chairman, Board of Governors, WBM Zion Secondary School, Tafo 1994 to 1999 and from 2009 to date
6. Member, Council of the College of Health Sciences of the University of Ghana, 1999 to 2006
7. President, Ghana Institute of Biology, 2000 to date

8. Chairman, Board of Governors, West Africa Secondary School, Accra, 1998 to date
9. Member and later Chairman, Research Committee of the Centre for Scientific Research into Plant Medicine (CSRPM), a research agency of the Ministry of Health, Ghana 1999 to date
10. Chairman, Natural Sciences Committee, UNESCO Commission, Ghana, 1998 to 2009
11. Chairman, National Bioethics Committee, UNESCO Commission, Ghana, 2009 to date
12. Member, Management Board, Environmental Protection Agency, Ghana, 2000 to December 2008
13. Member, Board of Trustees, Ghana Ethno-medical Foundation, 1995 to 2001),
14. Member, National Environmental Sanitation Policy Co-coordinating Council of the Ministry of Local Government and Rural Development, 1998 to 2001
15. Member and later Chairman, Ghana National Biodiversity Committee of the Ministry of Environment Science & Technology, 1993 to date
16. Member, Ghana National Bio-safety in Biotechnology Committee, 2001 to 2006
17. Member, Governing Council of the Centre for Remote Sensing and Geographic Information services (CERSGIS) of the University of Ghana, representing the Environmental Protection Agency, 2000 to 2009.
18. Member and later Chairman, Scholarships Review Committee of the Ghana Government Scholarships Secretariat, 1999 to 2009.
19. Member, Council of the Centre for Scientific Research into Plant Medicine. 2001 to December 2008.
20. Chairman, Cocoa Research Institute of Ghana Management Board, 2009 to date
21. Chairman, Project Advisory Committee, Tropenbos Project on Chainsaw Operations in Ghana, 2009 to date

OTHER RESPONSIBILITIES (Social as from 1996)

1. President Madina Chapter, Full Gospel Business Men's Fellowship International (finished assignment in December 2007)
2. Chairman, Board of Trustees (Local level) for the Akyem Tafo Union of Great Britain from 1996 to date

INTERNATIONAL

1. Chair, 9th and 10th meeting of the Subsidiary Body on Scientific Technical and Technological Advice (SBSTTA) of the UN Convention on Biological Diversity (CBD). During my tenure specific targets and goals running along the UN Millennium Development Goals were introduced into the CBD to achieve a substantial reduction in the loss of global biodiversity by 2010.
2. Member, Scientific and Technical Advisory Panel (STAP) from 2003 to 2004 of the Millennium Ecosystem Assessment (MA). I contributed to the achievement of the world acclaimed assessment report on the world's resources.
3. Member, Task Force for International Union of Forest Research Organisations (IUFRO) on forest indigenous knowledge in Africa.
4. Member of the bureau of SBSTTA for its 11th meeting. The African group decided to keep me on the bureau of this body to support the in-coming Chair of SBSTTA 11 from Europe to ensure continuity.
5. Vice-Chairman, Standing Committee (SC) of CITES from 2005 to 2008. The major assignment given to me was to chair a sub-committee of the SC in Ottawa, Canada in April 2006 to draft a strategic vision for this international inter-governmental environmental organisation as it braces itself towards challenges of the millennium from 2008 to 2013. The draft was agreed by the Standing Committee at its 54th meeting held in Geneva.
6. Member, Board of the Millennium Ecosystem Assessment (MA) 2002-2005. This board was the main authority responsible for the compilation of the assessment.

7. Member, MA Follow-up group (2007- 2009) on the world reactions of the MA report, whose actions led to the IMoSEB-MA joint negotiation under UNEP to identify and develop an appropriate international Science-policy interface, which is currently referred to as the Intergovernmental Panel on Biodiversity and Ecosystem Services (IPBES).
8. Member, Governing Council of the African Centre for Technology Studies (ACTS) Nairobi. My membership has been renewed for another 3-year term to December 2014. This Council co-ordinates technology policy studies, especially on the environment for Africa.
9. Member, International Steering Committee for GEF project on Removing Barriers to Invasive Alien Species executed by CABI on behalf of 4 African Countries (Ethiopia, Ghana, Uganda and Zambia). My membership ended in August 2006.
10. Member, International Advisory Committee for UNESCO Biosphere Reserves. I was invited to this committee by the Director-General of UNESCO for a three-year assignment which finished in January 2010.
11. Member, Scientific Council for the UN Convention on Migratory Species (CMS) .In this position to which I was assigned in 2007, I have been the spokesperson for Africa on scientific advice needed to secure the migratory routes of migrating animals especially birds and mammals.
12. Co-chair, International Mechanism of Scientific Expertise on Biodiversity (IMoSEB) from January 2005 to April 2008. This was an initiative started by the President of France to charge nations to protect and use their biological resources in a manner that will ensure sustainability. The committee was made up of very prominent international biologists.

The committee published an article in Nature calling on mankind to ensure the halt in the loss of biological diversity.

13. Alternate Member (from 2003 to 2007), Council of the Global Environment Facility (GEF), Washington, representing 8 constituent members of Benin, Cote d'Ivoire, Ghana, Guinea,, Liberia, Nigeria, Sierra Leone and Togo .
14. Member (appointed from January 2008 for a 3-year period to the end of 2010), Council of the Global Environment Facility (GEF), Washington, representing 8 constituent members of Coastal West Africa.
15. Member, an international advisory committee in charge of planning the first (Kuala Lumpur), second (Nairobi) and third (Busan, Korea) meetings of the UNEP sponsored Inter-governmental Platform for Biodiversity and Ecosystem Services (IPBES). I co-chaired the first meetings held in Kuala Lumpur, Malaysia in October 2008 with Dr Robert Watson, co-chaired during the second meeting held in Nairobi from 5 to 10 October 2009 and acted as vice-chair during the third and last meeting held in Busan, Korea from 7 to 11 June 2010.
16. Participated in the first (Nairobi) and second and final (Panama City) intergovernmental meetings to identify the modalities for the establishment of IPBES. At these two meetings, I was the spokesperson for Africa.
17. Vice Chair, Standing Committee, CMS, Bonn, Germany from 2009 to 2011
18. Chair, Standing Committee, CMS, Bonn, Germany from 2011 to 2014

B. Academic Awards and Honours

- ◆ UNESCO Scholar to Edinburgh University 1969-1970
- ◆ Ghana Government Scholar to Edinburgh University 1970-1972
- ◆ UNESCO Scholar to British Council course on Resources in Higher Education, London July to December 1975
- ◆ Swedish Institute (SI) Fellowship for a 6-month research at the Dept. of Ecological Botany, Uppsala University, Sweden, July to December 1991
- ◆ Elected Fellow of the Linnaean Society of London (FLS) 1972
- ◆ Elected Fellow of the Ghana Institute of Biology March 1995

C. International Assignments

- ◆ Represented Ghana at the 1st, 2nd, 5th, 6th, 7th, 8th, 9th, 10th and 11th Conference of the Parties (COP) of the Convention on Biological Diversity (CBD) (1994-2012)
- ◆ Represented Ghana from the 4th to the 16th meeting of the Subsidiary Body on Science Technical and Technological Advice (SBSTTA) of the Convention on Biological Diversity
- ◆ Attended meetings of the OAU Experts Committee on African Traditional Medicine and Medicinal Plants as a member. (1996 to 2003)
- ◆ Attended meetings of the *Ad Hoc* Experts group on Sustainable use of Biological Diversity, SBSTTA, CBD as a member from 2000 to 2004
- ◆ Attended meetings of the *Ad Hoc* Experts Group on Forest Biological Diversity, SBSTTA, CBD as a member from 1999 to 2001
- ◆ Participated as a member of the West African Network of Natural Product Research Scientists from 1999 to date
- ◆ Contributed as a member of the Steering Committee on Strategic Alliance for Biotechnology Research In African Development (SABRAD) in 1999 to 2000
- ◆ Participated as a member of the bureau of SBSTTA for its 8th, 9th, 10th and 11th meetings from 2002 to 2006.
- ◆ Nominated by 7th SBSTTA and appointed by COP 6 of CBD as President of the Bureau for the 9th and 10th SBSTTA in 2003 and 2004
- ◆ Nominated by the Ghana UNESCO Commission as a member of the UNESCO International Ethics Committee for 2002-2004 session
- ◆ Successfully organised an international workshop under the theme "Enabling Biotechnology for African Agriculture" for Strategic Alliance for Biotechnology Research in African Development (SABRAD), an initiative of the 1890 LGU's of the USA, at M-Plaza Hotel Accra Ghana 8-11 November 2000

- ◆ Successfully organised an international workshop on “Forests and Biological Diversity” which sought synergies between the Convention on Biological Diversity and the United Nations Forum on Forests, at M-PLAZA Hotel Accra Ghana 28-30 January 2002.
- ◆ Organized an international conference on Traditional Forest Knowledge and Sustainable Forest management in Africa which sought to underscore the Traditional Forest Related Knowledge of Africa at ERATA Hotel, East Legon, Accra, October 2008
- ◆ Co-chaired the 35th Council of the GEF Council meeting in Washington, June 2009
- ◆ Organized a conference on Taxonomic Needs Assessment in Ghana at ERATA Hotel, East Legon, Accra, March 2010
- ◆ Organized consultations twice yearly from June 2008 to November 2010 among Operational Focal Points of GEF in the 8 West African Constituencies (Benin, Cote d’Ivoire, Ghana, Guinea, Liberia, Nigeria, Sierra Leone and Togo) in my capacity as the Council Member for the constituency of the GEF.

INTERNATIONAL EVALUATION AND OTHER EXPERIENCES

- Evaluation of “African NGO-Government partnerships for sustainable biodiversity action project” RAS/97/G31 which was conducted in March 2003. The evaluation looked at the Important Bird Areas as the new focus for biodiversity conservation and sustainable use
- Evaluation of the Sida-Sarec funded African Forest Research Network (AFORNET) which has been coordinated from the African Academy of Sciences (AAS) based in Nairobi Kenya. This evaluation started in December 2006 and concluded in January 2007. The evaluation looked at a number of parameters including gender and research diffusion into the participating countries in Africa south of the Sahara
- Preparation of a feasibility report for the establishment of a regional Centre of Excellence for Biodiversity for the Albertine Rift to be located in Republic of Rwanda. This study was initiated by UNESCO East African Regional Office in Nairobi between August 2008 and April 2009
- Undertook an e-consultancy for the Agricultural Biodiversity Initiative in Africa (ABIA) conference at the 2010 FARA General Assembly in Ouagadougou, Burkina Faso
- Evaluation of the Sida funded African Forest Forum (AFF) based in Nairobi at the ICRAF World Agroforestry Centre from January to May 2011.
- Development and establishment of an *ad hoc* Science and Technology Committee for the Abidjan Convention, June 2012, Abidjan, Cote d’Ivoire.

PUBLICATIONS (Selected)

A. Commissioned Research Reports

1. Dorm-Adzobu, C., Agyepong, G.T., Amoako-Nuama, C.E., Oduro, W., Oteng-Yeboah, A.A. and A. Sackey (1991) Ghana Biodiversity Review, USAID, Ghana
2. Oteng-Yeboah, A.A. and L. Enu-Kwesi (1993) Ecological, Ethnobotanical, Physiological and Eco-physiological investigations into three traditional groves in Northern Ghana: A baseline study report, UNESCO-CIPSEG PROJECT 507/GHA/40 November 1993, 133pp.
3. Oteng-Yeboah, A.A. and L. Enu-Kwesi (1995) Ethnobotanical, Eco-physiological, Natural Regeneration and Species Enrichment Studies and the Development of Guidelines and framework for a Biosphere Reserve of the CIPSEG Project Locations, UNESCO-CIPSEG PROJECT 507/GHA/40, 28 February 1995, 18pp.
4. Oteng-Yeboah, A.A. (1994) Detailed Baseline Studies of Muni-Pomadze Ramsar site: Plant Ecology, Ghana Coastal Wetlands Management Project, GW/A.285/SF.2/34, May 1994, 51 pp.
5. Oteng-Yeboah, A.A. (1994) Takoradi Thermal Generating Plant: Terrestrial Ecological Survey Report, VRA, Eng. 033.08/94/567, September 1994, 37pp.
6. Oteng-Yeboah, A.A. (1994) National Biodiversity Country Study: Botany, Ministry of Environment, Science and Technology, MEV/SCR/042, 30 September 1994, 143 pp.
7. Oteng-Yeboah, A.A. (1994) Detailed Baseline Studies of Sakumo Ramsar site: Plant Ecology, Ghana Coastal Wetlands Management Project, GW/A.285/SF.2/34, October 1994, 45pp.
8. Oteng-Yeboah, A.A. (1994) Detailed Base-line Studies of Densu Delta Ramsar site: Plant Ecology, Ghana Coastal Wetlands Management Project, GW/A.285/SF.2/34, November 1994, 54pp.
9. Oteng-Yeboah, A.A. and L. Enu-Kwesi (1995) Guidelines for elucidating participatory approaches to Buffer Zone development, strategies of using useful plants in the defined ecosystem, UNESCO-CIPSEG PROJECT 507/GHA/40, November 1995, 63 pp.
10. Oteng-Yeboah, A.A. and L. Enu-Kwesi (1996) Plant Diversity Survey and other studies on Bia National Park, BRAAF Project Ghana MAB, October 1996, 58pp.

11. Oteng-Yeboah, A.A. (1996) Inventorial Studies of Bia National Park, Ghana, prepared for the National Geographic Society, Washington, USA, November 1996, 88pp.
12. Oteng-Yeboah, A.A. and R.K. Bamfo (1996) Ghana Biodiversity Data Management Institutional Survey, 87pp. Ministry of Environment, Science & Technology.
13. Oteng-Yeboah, A.A. (1997) Tano Power Project: Terrestrial Ecological Survey report of project site and transmission corridors, 63pp. + 9 maps and plates. Ghana National Petroleum Corporation.
14. Oteng-Yeboah, A.A. (1998) Wetlands Floral Diversity Ghana Coastal Wetlands Management Project, Ghana Wildlife Department, June 1998, 91pp.
15. Oteng-Yeboah, A.A. (1999) Development of a Management Plan for the Densu Delta Ramsar Site, Ghana Coastal Management Project, GET TF 28619 GH, Wildlife Division of Forestry Commission, Ministry of Lands and Forestry, December 1999, 82pp.
22. Oteng-Yeboah, A.A.; E.O. Afreh; C. Dei Amoah and R.K. Bamfo; (2001). Mining in Forest Reserves in Ghana: a report of a 4-member Technical Committee visit to 5 forest Reserves. Forestry Commission Accra, Ghana

B. Publications in refereed journals

1. Oteng-Yeboah, A.A. (1974). Four New Genera in Cyperaceae-

Cyperoideae. *Notes of the Royal Botanic Garden, Edinburgh*, 33:307-310

2. Oteng-Yeboah, A.A. (1974). Taxonomic Studies in Cyperaceae-Cyperoideae *Notes R.B.G. Edinburgh* 33:311-316.
3. Oteng-Yeboah, A.A. (1975). Morphology, Anatomy and Taxonomy of the genus *Pemireia* Aub. *Boissiera* 24:197-205.
4. Oteng-Yeboah, A.A.(1977). Some observations on the Genus *Ascolepis* Nees, *Notes R.B.G. Edinburgh* 33:399—397
5. Oteng-Yeboah, A.A.(1977). Observations on *Blasmus* Panz. Ex Schulz and *Blysmopsis* OtengYeboah, *Notes R.B.G. Edinburgh* 35:391-406.
6. Oteng-Yeboah, A.A. and Garba, I.S. (1983). The occurrence of Parasitic Mistletoes on *Azadirachta indica* (neem) in Sokoto Metropolis. *Nigerian Journal of Science and Technology* 1:103-108.
7. Oteng-Yeboah, A.A.(1985). Ecological survey of Plant Communities in the Sokoto Savanna vegetation: I. Floristic and Life form Composition *Biologia Africana* 2 67-78.
8. Oteng-Yeboah, A.A.(1985).Ecological survey of Plant communities in

Sokoto Savanna vegetation: II. Structure and Ordination. *Biologia Africana* 2: 79-94.

9. Oteng-Yeboah, A.A.(1986). Check list of farm weeds in Sokoto State. *Nigerian Journal of Basic and Applied Sciences* 1:83-86.
10. Oteng-Yeboah, A.A. and B.L. Aliero(1986)Ecology of farm weeds in Sokoto. I: Characteristic species of the University farm. *Nigerian Journ. of Basic and Applied Sciences* 1:15-28
11. Oteng-Yeboah, A.A. and B.L. Aliero (1987). Ecology of farm weeds in Sokoto. II: Estimate of weed seed bank in the soil. *Nigerian Journal of Basic and Applied Sciences* 1 (2): 211-223.
12. Oteng-Yeboah, A.A. and B.L. Aliero (1988). Ecology of farm weed of Sokoto III: Seed weight and its relation to germination. *Nigerian Journal of Basic and Applied Sciences* 2: 20-25.
13. Oteng-Yeboah, A.A. and J.M. Wright (1988). A species complex situation in *Costus* in West Africa. *Biologia Africana* 3 76-93.
14. Addae-Mensah I., Asomaning W.A., Oteng-Yeboah, A.A., Garneau, FX, Gagnon H., Jean, F.I., Mouda-Chiron, M. and Koumaglo, K.H. (1996) E-Anethole as a major essential oil constituent of *Clausena anisata*. *Journ. Essent. Oil Res.* 8: 513-516
15. Oteng-Yeboah, A.A.(1999) Mining Operations, Habitat loss and Biodiversity in Ghana. *Journal of the Ghana Science Association* Vol. 2(1):10-18

16. Oteng-Yeboah, A.A.(1999) Biodiversity Studies in three Coastal Wetlands in Ghana, West Africa. *Journal of the Ghana Science Association* Vol. (3):147-149
17. Alex Asase, Alfred A. Oteng-Yeboah, George T.Odamtten and S.J.Simmonds (2005) Ethnobotanical Study of some Ghanaian anti-malarial plants. *Journal of Ethnopharmacology*, Vol. 99 issue 2 pp.273-279
18. Alex Asase and Alfred A. Oteng-Yeboah (2005) An ethnobotanical study of plant uses in Wechiau Community Hippopotamus Sanctuary, Ghana. *XVII International Botanical Congress Book of Abstracts* No. 6.17.4 page 109
19. Alex Asase, Alfred A. Oteng-Yeboah, George T. Odamtten and S.J. Simmonds (2006) Anti-malarial properties of four selected ethnobotanicals from Ghana. *Legon Journal of Science*, Vol.1 issue 1:55-59
20. Asase, A., and Oteng-Yeboah, A. A., 2007. Assessment of plant biodiversity in Wechiau Community Hippopotamus Sanctuary in Ghana. *Journal of Botanical Research Institute of Texas* 1(1) 549-556
21. Asase, A., Kokubun T., Grayer, R.J., Kite, G., Simmonds' M.S.J., Oteng-Yeboah, A. A., and Odamtten, G. T., 2008. Chemical constituents and antimicrobial activity of some medicinal plants from Ghana; *Cassia sieberiana*, *Haematostaphis barteri*, *Mitragyna inermis* and *Pseudocedrela kotschyi*. *Phytotherapy Research* 22:1013-1016
22. Asase, A., Oteng-Yeboah, A. A., and Simmonds, S. J. M., 2009. Species of plants used in Wechiau Community Hippopotamus Sanctuary in northern Ghana. *Economic Botany*. In preparation
23. Asase, A., Grayer, R. J., Kite, G., Simmonds' M.S.J., Oteng-Yeboah, A. A., and Odamtten, G. T., 2009. Antifeedant activity of some traditionally used medicinal plants in Ghana against *Spodoptera littoralis* (Boisduval) Lepidoptera. *Journal of Tropical Science*. In Preparation
24. ~~Asase, A.~~, A., and Oteng-Yeboah, A. A. 2012. An ethnobotanical inventory of plants used in Wechiau Community Hippopotamus Sanctuary in Ghana. *Ethnobotany Research and Applications*. In press

C. Edited Conference proceedings

25. Oteng-Yeboah, A.A.(1991). Plant taxonomy A neglected science in the third world. In: David Wilson (ed.), *Proceedings of the 17th Biennial Conference of the Ghana Science Association* pp. 113-117, UST Kumasi, Ghana

26. Oteng-Yeboah, A.A.(1992). Knowing Ghana's biodiversity: the first step in conservation, preservation and reservation practices. In: E. Laing *et al* (eds.) *Proceedings of the Workshop on Biodiversity*, pp.25-30, Botany Dept., Legon and GTZ Ghana.

27. Oteng-Yeboah, A.A.(1995) Inventory needs in Ghana. In: *Final Compendium for a practical workshop on Biodiversity prospecting for Cameroon, Madagascar and Ghana, April 24 - May 2*, INBio, USAID, and BDCP

28. L. Enu-Kwesi, A.A. Oteng-Yeboah, J.K. Adomako and D.K. Abbiw (1996) Effects of logging and biodiversity in selected High Forest Ecosystems in Ghana. In: Oteng-Yeboah, A.A. and Enu-Kwesi (eds.) *Proceedings of Workshop on Biodiversity*. pp. 19-24, Dept. of Botany, Legon.

29. Oteng-Yeboah, A.A., L. Enu-Kwesi, D.K. Abbiw and J.K. Adomako (1996). Effect of gathering and collection of some non-timber forest products on biological diversity in Ghana. In: Oteng-Yeboah A.A. and L. Enu-Kwesi (eds.) *Proceedings of Workshop on Biodiversity*, pp. 13-18, Dept. of Botany, Legon.

30. Oteng-Yeboah, A.A. (1999) Ex situ conservation of indigenous Ghanaian Plant Biodiversity. *8th Faculty of Science Colloquium 12-13 June 1997*. Faculty of Science University of Ghana, Legon pp. 40-45

31. Michel Loreau, Alfred Oteng-Yeboah, M.T.K Arroyo, D. Babin, R. Barbault, M. Donoghue, M. Gadgil, C. Hauser, C. Heip, A. Larigauderie, K.Ma, G. Mace, H.A. Mooney, C. Perrings, P.Raven, J. Sarukhan, P. Schei, R.J. Scholes and R.T. Watson (2006). Diversity without representation. Commentary in *Nature* vol. 442: 245-246, 20 July 2006

32. Oteng-Yeboah, A.A. (2008). Using effective Policy and Research Tools for Human Behavioural Change. *A Future of Planet Earth Seminar Proceedings* pp 107-112, June 3-5, Paris, France. Foundation for the Future and UNESCO Division of Ecological and Earth Sciences publication.

33. Stephen R. Carpenter, Harold A. Mooney, John Agard, Doris Capistrano, Ruth S. DeFries, Sandra Diaz, Thomas Dietz, Anantha K. Duraiappah, Alfred Oteng-Yeboah, Henrique Miguel Pereira, Charles Perrings, Walter V. Reid, Jose Sarukhan, Robert J.Scholes and Anne Whyte (2009). Science for managing ecosystem services: Beyond the Millennium Ecosystem Assessment. *PNAS* Vol 106 (5): 1305-1312

34. Oteng-Yeboah, A. A. (2009). The EU Biodiversity footprint in developing countries. Presented at the *EU Conference on 'Biodiversity protection beyond 2010: priorities and options for future EU policy'*, Athens, Greece, 26-28 April

Mimeographs and Technical Papers

1. Oteng-Yeboah, A.A. (1975). The Teaching of Science at the University of Cape Coast Ghana, from an innovatory perspective. British Council Training Centre, London.

2. Oteng-Yeboah, A.A. (1985). Field Guide to woody Plants of Sokoto, North Western Nigeria.

3. Oteng-Yeboah, A.A. (1985). Field Guide to herbaceous Plants of Sokoto, North Western Nigeria.
4. Oteng-Yeboah, A.A. (1985). Field Guide to Climbing Plants of Sokoto, North Western Nigeria
5. Oteng-Yeboah, A.A. (1986). Field Guide to Grasses and Sedges of Sokoto, North Western Nigeria.
6. Oteng-Yeboah, A.A. (1992). Notes on some crucial taxonomic concepts for Africa.

D. Books/Chapters in Books

1. Oteng-Yeboah, A.A. with Kit Tan (1986) Cyperaceae-Cyperoideae in Turkey. In PH. Davis (ed.) *Flora of Turkey*, Vol. 9:32-72, Edinburgh University Press
2. "General taxonomic concepts for Africa" manuscript in preparation

Approximately 145pp. in full scap.
3. Oteng-Yeboah, A.A. and J.M. Wright (1990). In :M.S. Patel and S. Nokoe edit. *Biometry for Development* pp. 151-166 ICIPE Science Press Nairobi.

4. Oteng-Yeboah, A.A., Abbiw, DK. And L. Enu-Kwesi (1994). Biodiversity Studies in Bia National Park, Ghana: issues of concern in African forestry conservation and development. In: N'geny Mengech (eds.) Supporting Capacity Building in Forestry Research in Africa, pp. 241-257, African Academy of Sciences and International Foundation for Science.

5. Oteng-Yeboah, A.A.(1994). DNA Bank Depositories in Developing Countries: the way Forward. In: R.P. Adams *et al* (eds.) Conservation of Plant Genes II: Utilization of Ancient and Modern DNA pp. 173-186, Missouri Botanical Garden, St. Louis, Missouri, USA.

6. Oteng-Yeboah, A.A.(1995). Biodiversity Assessment of forest tree species in Bia National Park, Ghana. In: T.J.B. Boyle and B. Boonawe (eds.) Biodiversity Assessment of forest tree species in Bia National Park, Ghana, in T.J.B. Boyle and B. Boonawe (eds.) Measuring and Monitoring Biodiversity in Tropical and Temperate Forests, pp. 247-256, CIFOR, IUFRO.

7. Oteng-Yeboah, A.A.(1996). Biodiversity in three traditional groves in the Guinea Savanna, Ghana. In: L.J.G. van der Maesen *et al* (eds.) The Biodiversity of African Plants, pp. 188-197, Kluwer Academic Publishers, Dordrecht, London

8. Gbedemah C.M. and A.A. Oteng-Yeboah (1997) status and trends of biotechnology and biosafety in Ghana. In: K.J. Mulongoy (ed.) Biosafety Needs and Priority Actions for West and Central Africa pp. 31-34, International Academy of the Environment IAE, Geneva, Switzerland

9. Oteng-Yeboah, A.A. (1999) A survey of plant uses in three traditional groves in the Guinea Savanna Zone of northern Ghana, In: J. Timberlake and S. Kativu (eds.) African plants: Biodiversity, taxonomy and uses pp. 471-482, Royal Botanic Gardens, Kew.

10. Oteng-Yeboah, A.A. (1998) Research and training needs in conservation approaches in Africa. In: Robert L. Adams and Janice E. Adams (eds.) Conservation of Plant Genes III: Conservation and Utilization of African Plants pp. 199-208, Missouri Botanical Garden Press, St. Louis, Missouri, USA.

11. Oteng-Yeboah, A.A. (1998) Why the emphasis on Conservation of Biological Diversity in the Gulf of Guinea, In :A. Chidi Ibe, A.A. Oteng-Yeboah, S.G. Zabi and D. Afolabi (ed.) Integrated Environmental and Living Resources Management in the Gulf of Guinea: the Large Marine Ecosystem approach pp. 143-146, UNIDO/ UNDP/NOAA/UNEP.

12. Mshana, N.R.; Abbiw, D.K.; Addae-Mensah, I.; Adjanouhoun, E.; Ahyi, M.R.A.; Ekpere, J.A.; Enow-Orock, E.G.; Gbile, Z.O.; Noamesi, G.K.; Odei, M.A.; Odunlami, H.; Oteng-Yeboah, A.A.; Sarpong, K.; Sofowora, A. and Tackie, A.N. (2000). Traditional Medicine and Pharmacopoeia: Contribution to the Revision of Ethnobotanical and Floristic Studies in Ghana. 920pp. OAU/STRC Lagos

13. Oteng-Yeboah, A. A. (2007) The philosophical foundations of biophysical resources.in Gyasi, E.A., Kranjac-Berisavljevic, G., Blay, E.T and Oduro, W. (eds.) Managing Agrobiodiversity the traditional way: Lessons from West Africa in sustainable use of biodiversity and related natural resources. United Nations University Press, Tokyo, Japan
14. Oteng-Yeboah, A.A., Kwapong, P., Cobblah, M.A., Smith, R. and Lyal, C.H.C (2010) Assessing Taxonomic Needs in Ghana. CSIR-Ghana, Natural History Museum and Bionet-INTERNATIONAL.

E. Editorial work

1. Laing, E.; C. Ameyaw-Akumfi; L. Enu-Kwesi; A.A. Oteng-Yeboah; E.A. Gyasi; Hans Rudatt; Elizabeth Acheampong and S.O. Bennett-Lartey (eds.) Proceedings of Workshop on Biodiversity sponsored by the Dept. of Botany University of Ghana and GTZ Ghana 8 January 1992
2. Oteng-Yeboah, A.A. and L. Enu-Kwesi (editors) Proceedings of Biodiversity Workshop sponsored by the Biodiversity Support Program BSP/WWF/Grant/MS 28 and the Department of Botany, University of Ghana 23 February 1996
3. A. Chidi Ibe; A.A. Oteng-Yeboah; S.G. Zabi and D. Afolabi (editors) Integrated Environmental and Living Resources Management in the Gulf of Guinea: The large Marine Ecosystem Approach. Proceedings of the first regional symposium on the Gulf of Guinea Large Marine Ecosystem; Abidjan 26-30 January 1998.

UNIDO, UNDP NOAA, UNEP
4. Parrotta, J.A., Oteng-Yeboah, A.A. and Cobbinah, J. (2008). Eds. Traditional Forest Knowledge and Sustainable Forest Management in Africa. IUFRO World Series 23: 39-46

CURRICULUM VITAE

PERSONAL DATA

NAME	:	Beatrice Nangami Khayota
DATE OF BIRTH	:	08/08/59, Kenya
NATIONALITY AND GENDER	:	Kenyan, Female
MARITAL STATUS	:	Married
E-MAIL	:	bkhayota@museums.or.ke ; bkhayota@hotmail.com

TERTIARY EDUCATION / PROFESSIONAL QUALIFICATIONS

PhD, 1991-1995, University of Reading, UK (Botany)
 MSc. in CITES, 2000-2003, International University of Andalusia, Spain
 MSc., 1984-1988, University of Nairobi (Botany)
 B.Ed., (Science) 1979-1983, Kenyatta University (Botany, Zoology and Education)

PROFESSIONAL TRAINING

2004, Science in CITES, Eastern and Southern Africa Regional Capacity Building Workshop
 Lusaka, Zambia
 2006, Course on Logical Framework in Project Cycle: PCM/PLAN, Nairobi, Kenya

WORK EXPERIENCE

2008-Present, Head of Department, Centre for Biodiversity, National Museums of Kenya (NMK)
 2007-Present, Principal Research Scientist, NMK
 2007-2008, Interim Head, Centre for Biodiversity, NMK
 2004-2007, Acting Assistant Director, Centre for Biodiversity, NMK
 2003-2007, Deputy Project Manager, National Museums of Kenya Support Programme (NMKSP)
 1996-2004, Botanist in Charge, East African Herbarium, NMK
 1996-1998, Project Manager, ODA/NMK Plant Conservation Programme, NMK
 1983-2007, Senior Research Scientist, NMK
 1982, Secondary school teacher

CONSULTANCIES AND OTHER PROFESSIONAL SERVICES

National

1997, Member of the Plant Genetic Resources working Group
 1998, Member of the Convention on Biological Diversity (CBD), Access and Benefit Sharing (ABS) Expert Group
 1999-Present, Member, National Technical Committee of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)
 1999-Present, Member, National Technical Committee of the Convention on Biological Diversity (CBD)
 2000-Present, National Focal person and Member of the CBD Global Taxonomy Initiative (GTI)
 2004-2010, Coordinator (Kenya), Biodiversity Transect Monitoring Analysis in Africa (BIOTA)-East Africa
 2008-2011, Member, Project Advisory Committee: Improving Livelihoods through Sustainable Government, NGO and Private Partnerships in South Nandi Forest, western Kenya
 2008-present, Member Important Bird areas national Liaison Committee

2008-Present, Member, National State of the Environment Steering Committee
2008-Present, Member, Mpala Research Scientific Advisory Committee
2008-present, Member, National Environment Action Planning (NEAP) Committee
2009-2012, Co-opted Member, Nature Kenya Executive Committee
2009-present, Member National Biological Resources Committee

Regional

1999-Present, Chair, IUCN-SSC, Orchid Specialist Group, Afro-Madagascar region
2000-2005, Regional Member of the CBD, GTI Coordination Mechanism
2004, Coordinator (Kenya) - Biodiversity Baseline Survey for Mt. Elgon Regional Ecosystem Programme (MERECP)
2004-Present, Regional Representative for Africa, CITES Plants Committee
2006-Member of the National Task Force, Botanical, Zoological Network for eastern Africa (BOZONET)
2006-2009 Regional Co-Chair of the CITES Plants Committee *Prunus africana* Working Group

International

2001-2005, Member of the Species Plantarum Steering Committee (World Flora)
2001-2004, Scientific advisor, All Species Project
2007, Member of the International Mechanism of Scientific Expertise on Biodiversity (IMoSEB)
2008, Member, International Expert Workshop on CITES Non-Detriment Findings Steering Committee
2009-Present, Executive Member, Consortium of Barcode of Life (CBOL)

General

Supervisor/External Examiner Post Graduate Theses, East African Universities
 Resource person for, Plant Taxonomy, Plant Conservation and Biological Conventions

ACHIEVEMENT AND AWARDS

- Kobil Merit Award, Kenyatta University, for The Best Candidate in Education Communication and Technology, 1983
- M.Sc. Scholarship, Kenyatta University College, 1984
- The Linnaean Society of London, through the East African Wildlife Society, Denis Stanfield Award, to carry out research on conservation of orchids, 1990
- European Community Scholarship, PhD Course, National Museums of Kenya, 1991,
- Earthwatch Europe Fellowship, to participate in Cameroon Rain Forests Project, 1995
- Bentham-Moxon Trust Award, Royal Botanic Gardens, Kew, (UK), Partial Funding for the PhD Course, 1995
- MSc. in CITES Scholarship, Universidad Internacional de Andalucia, Spain, 2000

CURRENT RESEARCH ACTIVITIES

Systematics, ecology and conservation; Orchid conservation in Kenya; CITES related research and Biodiversity resources management and sustainable use.

PUBLICATIONS

Jefwa, J., Khayota, B.N., Ngugi G. and Otieno, V. 2003. Exploring the diversity of Microfungi as sources of food, medicines and dyes in Africa. In Proceedings of the first Protia International Workshop, 23-25 September 2002. Ed. Schemelzer and Omino E.A.

- Khayota, B.N.**, 1987. Taxonomic and Ecological Study of the Orchid Flora of the Ngong Hills. M.Sc. Thesis, University of Nairobi
- Khayota, B.N.** 1988. An Annotated checklist of potentially useful trees and shrubs (indigenous and exotic) species for farms and home compounds. In proceedings of the Second Kenya National Seminar on Agroforestry, 1-6 November 1988, ICRAF, Nairobi Kenya.
- Khayota, B.N.** 1990. A Survey of the Leopard Orchid at the Coast. Swara Magazine, East African Wildlife Society, Vol.13, No. 3.
- Khayota, B.N.** 1993. The Genus *Ansellia*. The Kew Magazine, Vol. 10. No.1, Pg. 27-35
- Khayota, B.N.**,1995. Systematics of the genus *Ansellia*. Ph.D. Thesis, University of Reading, UK
- Khayota, B.N.**1999 Notes on systematics, ecology and conservation on *Ansellia* (Orchidaceae). In: Timberlake, J. & Kativu, S. (eds) African Plants: Biodiversity, Taxonomy and Uses, pp. 423-425. Royal Botanic Gardens, Kew
- Khayota, B.N.** and Mwachala, G. In: Klopper, R. Smith G.F. & Chikuni, A.C.(eds) 2001. The Global Taxonomy Initiative: documenting the Biodiversity of Africa proceedings of a workshop held at the Kirstenbosch National Botanical Garden, Cape Town, South Africa (27 February – 1 March 2001). Strelitzia 12. National Botanical Institute, Pretoria.
- Khayota, B.N.** 2003: *Ansellia Africana* Lindl. (Orchidaceae) Distribution, Trade, Conservation and Management in Kenya. MSc. Thesis, International University of Andalusia
- Khayota, B.N.**, 2008. Non-Detriment Findings of the Genus *Ansellia* Lindl. in Kenya. In Proceedings of the International Expert Workshop on CITES Non-Detriment Findings: Case Studies, Plants, part II, 17-22 November 2008, Cancun, Mexico.
- Khayota, B.; Lampe, K.-H.** (2008) Capacity Development and Data Centres: Conclusions and Visions. International BIOTA Africa Conference: Biodiversity of Africa - Observation and sustainable Management for our future!', Spier, Republic of South Africa.
- Mwachala, G., Mungai, G. & Khayota, B.N.** (2004). New plant records for the K 7. Region Kenya. Journal of the East African Natural History Society, 93: 79-80
- Ogol, C.K.P.O. Ogola P.O., Odede, W.D., Khayota B.N.**, 2002. Indigenous Knowledge of Medicinal and Utilitarian plants of Mfangano Island, Lake Victoria, Kenya. East African Journal of Science, 4(1):11-28
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- Schaab, G., B. Khayota, G. Eilu & J.W. Wägele (Eds.)** (2010): The BIOTA East Africa atlas. Rainforest change over time. Karlsruhe.

MEMBERSHIP OF PROFESSIONAL SOCIETIES

Kenya Orchid Society; East African Natural History Society- Nature Kenya; Earthwatch,
 Association for the Taxonomic Study of the Flora of Tropical Africa (AETFAT); IUCN-SSC,
 Orchid Specialist Group

REFEREES

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 Chief of Research
 National Museums of Kenya
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CURRICULUM VITAE

Name: Matiku Paul Musengy'a

Date of birth: 10 October 1968

Marital status: Married

Nationality: Kenyan

Current contact address: Nature Kenya, P.O. Box 44486, Nairobi, Kenya, Tel: (254 20) 254-771343138; or personal mobile 254-714741849; e-mail: Paul.matiku@yahoo.com or matiku@naturekenya.org or director_naturekenya@mitsuminet.com.

Education: PhD, Environmental Management and Planning (Kenyatta University); **Master of Philosophy** in Environmental Studies (Moi University); **Bachelor of Science** in Wildlife Management (Moi University); **Kenya Advanced Certificate of Education**; **Kenya Certificate of Education**; Various certificates including: personnel management; organisational development and business planning; project monitoring and evaluation and logframes.

Work experience: 17 years in conservation research and action; 2 years research scientist at the National Museums of Kenya; 15 years hands-on-conservation at Nature Kenya; 10 years Executive Director at Nature Kenya; programme development; proposal writing; project monitoring and evaluation; business planning; organisational management; strategic planning; donor liaison and reporting; policy and advocacy; conservation action priority setting; mobilizing conservation action; personnel management and supervision.

Skills and languages: Computer literate, familiar with MS Office and statistical analysis packages, and with a working knowledge of desktop publishing (Pagemaker and Photoshop); Fluent in English, Kiswahili and Kikamba; Ornithological field techniques (including mist-netting and ringing, survey methods, etc); Logical framework approach of project development and monitoring and evaluation; Organisational development through strategic planning processes and business planning; personnel management and supervision; proposal writing; policy and advocacy; Clean driving licence (since August 2000) and Passport.

Key Achievements: Grown Nature Kenya from 6 staff to 40 staff; increased financial base from US\$ 40,000 project funding to over US\$ 3 m fortfolio; developed Site Support Groups at more than 19 IBAs; positioned Nature Kenya nationally and globally; diversified funding sources for Nature Kenya; contributed to key publications e.g. Key Biodiversity Areas now recognised by CBD; IBA monitoring status reports among others; developed and applied Important Bird Areas (IBA) Monitoring Framework now taken up by Birdlife International and applied globally; developed and build the capacity of 19 Site Support Groups (SSGs) now working as site conservation champions at 19 IBAs in Kenya; established (since 1998) and sustained a National Liaison Committee (NLC) composed of 24 government and non government agencies to network and share knowledge for sustained IBA conservation; developed and sustained a fort folio of networked SSGs site programmes growing from baseline of US\$ 40,000 in 1998 to US\$ over 8 million in 2012; developed and initiated community livelihoods improvement programmes generating sustainable incomes and support for IBAs conservation; grew Nature Kenya from 11 experienced staff in 2001 to 52 highly qualified and experienced staff in 2012; developed partnerships with government for delivery of site actions including 18 ministries forming the Inter-Ministerial Technical Committee for Deltas in Kenya at the Office of the Prime Minister; Build trust with government leading to government inclusion of myself and Nature Kenya staff into government delegations to CBD meetings; Sourced funding and purchased 195 acres of nature reserve for perpetual conservation of the endemic globally threatened Sharpe's Longclaw in Kinangop Grasslands IBA; successfully mainstreamed IBAs into government planning processes recognising IBAs as priorities for biodiversity conservation; Advocated for IBAs conservation internationally culminating in to IUCN

guidelines in the definition of Key Biodiversity Areas, a co-authored publication including myself among others. Widely published.

Meetings and facilitation: Facilitated technical meetings and workshops; attended part of government delegation 10 international meetings including the CBD-COPs and SBSTAs.

International responsibilities:

2008-2013: Elected Africa representative to the Birdlife International Global Council

2004-2008: Elected Africa representative to the Birdlife International Global Council

2002-2005: Chairman of Africa Policy and Advocacy Working Group of Birdlife International

1999 and 2008: Convention on Biological Diversity (CBD) Focal Point, Council of the African Partnership of BirdLife International

1999: Served as African Project Managers Representative to the Project Liaison Group for the Project 'African NGO Government Partnerships for Sustainable Biodiversity Action'. The group composed representatives from GEF/UNDP New York, UNOPS, RSPB, BirdLife International and Project Team

2000: Member of an African Task Force reviewing the indicators and means of verification for the GEF/UNDP Funded Project 'African NGO Government Partnerships for Sustainable Biodiversity Action'

National responsibilities

2004-2008: Member of the Kenya GEF Proposals review panel

2000-2008: Nature Kenya alternate representative to the Kenya Forests Working Group Management Committee

2004-2008: Member of National Taskforce on CBD reporting

Others: Nature Kenya representative in various national conservation for a

Environmental Awards

4th July 2007: Distinguished Service Award of the Society for Conservation Biology. Received on behalf of Nature Kenya excellent work in pioneering conservation and education work in Africa

27 May 2000: The year 2000 East Africa Environmental Network. Environmental Leadership Award for the recognition of outstanding contributions towards Environmental Conservation in Eastern Africa.

Proposals: Developed and implemented many proposals. Current donor commitment at Nature Kenya stands at over US\$ 2.5 million.

Reports and publications

Bennun L., Matiku P., Mulwa R., Mwangi S. and Buckley P. / Monitoring Important Bird Areas in Africa: towards a sustainable and scaleable system. One contribution of 16 to a Special Issue of *Biodiversity and Conservation* 'Monitoring matters: examining the potential of locally-based approaches'. Issue: Volume 14, Number 11. Date: October 2005. Pages: 2575 – 2590

Bennun L.A., Matiku, P & Ngari S. (in press). Using Important Bird Areas to set Biodiversity Priorities for Kenya.

Brooks T, Andriamaro L, Butynski T, Gereau R, Hawkins F, Howell K, Knox D, Langhammer JP, Lamoreux F, Lowry PPH, Luke Q, Matiku P, McKnight MW, Msuya C, Mugo R, Rabarison H, Rakotobe ZL & Randrianasolo H. 2007. Objectifs et priorités pour la conservation des oiseaux et de la biodiversité d'Afrique. Ostrich, sous presse.

- Brooks, T., Andriamaro, L., Butynski, T., Gereau, R., Hawkins, F., Howell, K., Knox, D., Langhammer, P., Lamoreux, J. F., Lowry II, P.P., Luke, Q., Matiku, P., McKnight, M.W., Msuya, C., Mugo, R., Rabarison, H., Rakotobe, Z. L. & H. Randrianasolo. Targets and priorities for the conservation of African birds and biodiversity. *Ostrich*.
- Brooks, T.M. & Matiku, P. (2011). The science-policy interface for safeguarding key biodiversity areas. *Anim. Conserv* **14**, 111–113
- Conservation International. ECOSYSTEM PROFILE: EASTERN ARC MOUNTAINS & COASTAL FORESTS OF TANZANIA & KENYA BIODIVERSITY HOTSPOT. July 2003, Final version.
- Eken, G., Bennun, L., Brooks, T. M., Darwall, W., Fishpool, L., Foster, M., Knox, D., Langhammer, P., Matiku, P., Radford, E., *et al.* (2004) *BioScience* **54**, 1110–1118.
- Fleur, N. Matiku, P., & Mwangi, S. 1999 (eds). Kenya and the African-Eurasian Waterbird Agreement (AEWA). Proceedings of a Seminar and Workshop held at the National Museums of Kenya on 29 July 1999. Nature Kenya.
- J. P. Rodríguez, A. B. Taber, P. Daszak, R. Sukumar, C. Valladares-Padua, S. Padua, L. F. Aguirre, R. A. Medellín, M. Acosta, A. A. Aguirre, C. Bonacic, P. Bordino, J. Bruschini, D. Buchori, S. González, T. Mathew, M. Méndez, L. Mugica, L. F. Pacheco, A. P. Dobson, and M. Pearl. **Globalization of Conservation: A View from the South**. *Science* 10 August 2007: 755–756.
- Langhammer PF, Bakarr MI, Bennun LA, Brooks TM, Clay RP, Darwall W, de Silva N, Edgar GJ, Eken G, Fishpool LDC, Fonseca GAB da, Foster MN, Knox DH, Matiku P, Radford EA, Rodrigues ASL, Salaman P, Sechrest W & Tordoff AW. 2007. *Identification and gap analysis of Key Biodiversity Areas: Targets for Comprehensive Protected Area Systems*. Gland, Switzerland: IUCN.
- M. A. KIRAGU MWANGI, S. H. M. BUTCHART, F. B. MUNYKENYE, L. A. BENNUN, M. I. EVANS, L. D. C. FISHPOOL, E. KANYANYA, I. MADINDOU, J. MACHEKELE, P. MATIKU, R. MULWA, A. NGARI, J. SIELE and A. J. STATTFIELD. Tracking trends in key sites for biodiversity: a case study using Important Bird Areas in Kenya. *Conservation International* (2010)20:215–230.^a BirdLife International, 2010. doi:10.1017/S0959270910000456
- MATIKU, P. (2004) *The Coastal Forests of Kenya: Forest data, threats, socio-economic issues, values, stakeholders, challenges, strategies, investment and enabling environment*. WWF-EARPO Eastern Africa Coastal Forests Ecoregion Programme, Nairobi.
- Matiku, P. Simiyu, A. & Bennun, L. 1998. Distribution, densities and habitat preferences of three gamebird species on Imbirikani Group Ranch, Kajiado. Research Reports of the Centre for Biodiversity. National Museums of Kenya: Ornithology 29.
- Matiku, P., Mireri, C., and Ogot, C. (2011). Participatory Natural Resource Management—Policy and institutional Framework. (Part 1). Environmental Policy and law, Vol: 41/4–5, IOS Press
- Matiku, P., Mireri, C., and Ogot, C. (2011). Participatory Natural Resource Management—Policy and institutional Framework. (Part II). Environmental Policy and law, Vol: 41/6, IOS Press
- Matiku, P., Mireri, C., and Ogot, C. (2012). Is Participatory forest management (PFM) an asset or liability to local community households adjacent to Arabuko-Sokoke Forest, Kenya. *Journal of African Studies and Development*. Vol?
- Matiku, P., Mireri, C., and Ogot, C. (2012). Does participatory forest management change household attitudes towards forest conservation and management? *African Journal of Environmental Science and Technology*. Vol?
- Matiku, P., Mireri, C., and Ogot, C. (2012). The Impact of participatory forest management on livelihoods in Arabuko-Sokoke forest, Kenya. *Conservation and Society*. Vol?
- Matiku, P., Ogot, C. and Mireri, C. (2011). The impact of participatory forest management (PFM) on forest integrity and biodiversity in Arabuko-Sokoke forest, Kenya. *African Journal of Ecology*. doi: 10.1111/j.1365-2028.2011.01311.x
- Matiku, P.M, Bennun, L.A. & Odanga J.F.E. 1998. East Coast Akalat: Habitat Selection and Distribution in Arabuko-Sokoke Forest. In Dunes, Groundwater, Mangroves and BirdLife in Coastal Kenya. Coastal Ecology Series No.4. Moi University.
- Matiku, P.M., Bennun, L.A & Nemeth, E. (1997). Distribution and Population Size of the East Coast Akalat in Arabuko-Sokoke Forest, Kenya. *Ostrich*.

- Matiku, P.M., Bennun, L.A. & Odanga J.F.E. 1998. Habitat Selection and Distribution of the East Coast Akalat (*Sheppardia gunningi sokokensis*) in Arabuko-Sokoke Forest, Kenya. M Phil thesis, School of Environmental Studies, Moi University.
- Ngari, S., Bennun, L.A. & Matiku, P (in prep). Establishing and Developing important Bird Areas Site Support Groups: Suggested guidelines.

Referees

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Cambridge CB3 0NA, United Kingdom

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Curriculum Vitae: Muthumbi Agnes.W. N, Ph.D.

PERSONAL DATA

Name: Agnes Wangui N. Muthumbi
Nationality: Kenyan
Date of birth: 12/04/1965
Sex: Female
Status: Married with two children
Address: School of Biological Sciences, University of Nairobi, P.O. Box 30197-00100, Nairobi, KENYA.
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E-mail: amuthumbi@uonbi.ac.ke
Current Position: Senior Lecturer, School of Biological Sciences, University of Nairobi
Specialization: Benthic Ecology / Aquatic Biology/ Environmental Expert
 Registered with National Environmental Management Authority (NEMA)

EDUCATION BACKGROUND:

Ph.D (Biology), 1998 -Ghent University, Marine Biology Section. *Study subject was on Marine Biology and the Research Topic was "Biodiversity of Nematodes in the Western Indian Ocean: Taxonomy and Assemblages"*

MSc. (Nematology), 1994 - Ghent University, Belgium. *Reserch Topic: Vertical migration of free-living nematodes in mangrove sediments in Gazi Bay, Kenya.*

MSc. (Parasitology), 1993 - University of Nairobi, Kenya. *Research Topic: The effect of Deltamethrin pour-on on the incidence of trypanosomiasis in cattle in Galana Ranch, Kenya.*

BSc. (Science), 1989 - University of Nairobi, Kenya. *Dissertation Research Topic: Early diagnosis of Schistosoma mansoni infection in mice using Biomphalaria pfeifferi antigens.*

PROFFESIONAL SHORT TRAINING COURSES

1. Environmental Impact Assessment & Environmental Audit (2007), Kenya Cleaner Production Centre, Nairobi, Kenya
2. Occupational Health and Safety Course (2006), Jomo Kenyatta University of Agriculture & Technology, Nairobi, Kenya
3. Conflict Management (2004), University of Toledo, Toledo, Ohio, USA
4. Basic Grant Writing (2003), University of Toledo, Toledo, Ohio, USA
5. Identification of plant parasitic nematodes (2003), University of California, Riverside California, USA
6. Identification of free-living soil nematodes (2003), University of California, Riverside, California, USA.

WORKING EXPERIENCE

Working Experience

2006- Present: Senior Lecturer, University of Nairobi, School of Biological Sciences, P.O. Box 30197- 00100 Nairobi, KENYA

2000- 2006: Lecturer, University of Nairobi, Department of Zoology, P.O. Box 30197, 00100 Nairobi, KENYA.

1989- 2000: Research Officer, Kenya Marine and Fisheries Research Institute, P. O. Box, 81651 Mombasa, KENYA

RESPONSIBILITIES

2006-Present: Head, Marine & Freshwater Science, School of Biological Science (SBS), University of Nairobi

2006-Present: Member of SBS Post-graduate Student committee.

2006-2008: Coordination of Examinations in Animal Sciences in School of Biological Sciences

2005-2006: Coordinator Hydrobiology, Department of Zoology, University of Nairobi

CONSULTANCIES:

Monitoring and Evaluation of Aquatic related Research Projects for Commission of Higher Education (CHE)-2007

Resource person for drafting of Marine Policy for Kenya

PROFESSIONAL APPOINTMENTS

2011: External Examiner for Zoology in Faculty of Biological & Physical Sciences, Bondo University College.

2010: External Examination for University of Dar-Es-Salaam, Masters Program in Marine Science at Institute of Marine Science, Zanzibar.

2008- present: External Examiner for Department of Biological Science, Masinde Muliro University of Science & Technology

2008-present: External Examiner for Department of Zoology, Kenyatta University

POST-DOCTORAL RESEARCH EXPERIENCE

2003- 2004: Post-doctorate Research Associate, Department of Earth, Ecological & Environmental Science, University of Toledo, 2801 W. Bancroft, Toledo, 43606 OH, USA.

Research project: *Impacts of genetically modified Bacillus thuringiensis (Bt) corn on non-target soil micro-arthropods and nematodes. Funded by US Environmental Protectorate Agency (EPA).*

1999-2000: Post-doctorate Research Associate, Marine Biology Section, Ghent University, Belgium.

Research Project: *Benthic Ecology in “Ocean Margin Carbon Exchange Project (OMEX II-II)”. Funded by European Union.*

CURRENT RESEARCH AND RESEARCH GRANTS:

Mangrove ecosystem Research

1. Impacts of Open Access to mangrove Forest on Benthic Biodiversity. Funded by VLIR-UOS (2010-2013)
2. Marine Benthic Biodiversity: An Ecological Health Indicator. Funded by WIOMSA (2010-2011).
3. Integrated Salt-Artemia production and mariculture in a mangrove wetland at the Kenyan Coast. Research site Malindi, North Kenya Coast. Funded by Commission of Higher Education (2008-2010)
4. Mangrove benthic community interactions and ecosystem functioning recovery following mangrove forest rehabilitation: The research site is Gazi Bay in Kenya’s South Coast. VLIR-IUC-UoN project funded by the Flemish Government (Belgium) (2003-2009)

TEACHING AND STUDENT SUPERVISION

Undergraduate courses

- Fundamentals of Aquatic Ecology
- Developmental Biology
- Marine Biology
- Environmental Health and Ecotoxicology
- Marine Microbiology

Post-graduate courses

- Systematics and Taxonomy of Aquatic Organisms
- Sustainable Utilization of Aquatic Resources and the Law of the Sea.

Student Supervision

Dalmas Oyugi. PhD (Biology). University of Nairobi (On going). Ecological and Economic Impacts of Recently Introduced Common Carp (*Cyprinus Carpio*) (L. 1758) In Lake Naivasha, Kenya.

Gideon Kivengea. PhD (Biology). University of Nairobi (On going). Biology and fishery of *Octopus Species* exploited along the Kenyan Coast

Francis Mwonjoria PhD (Biology). University of Dar-Es-Salaam (On going). Aspects of the Biology, Ecology and Fishery of the Big Fin Squid, *Sepioteuthis lessoniana* (Lesson, 1830) in Kenya

Amos Mutua. PhD (Biology), University of Nairobi, (2010). "Assesment of benthic communities and their potential as bioindicators of mangrove ecosystem recovery in Gazi Bay, Kenya".

Bara Bara Mwaka, MSc Zoology (Hydrobiology). University of Nairobi, (2008). Research in "The distribution and abundance of Mangrove crab *Scylla serrata* (Forsk. 1755) in relation to environmental factors along the Southern Kenyan Coast".

Simiyu Musombi BSc (Biology) (2007), University of Nairobi (2007). Research topic: "Intertidal Zonation of Meiofauna in a Tropical Mangrove Ecosystem in Gazi Bay, Kenya".

Dorcas Ngondi BSc (Biology). University of Nairobi (2006). Research topic: "Macrofauna community structure in a recovering mangrove ecosystem in Gazi Bay, Kenya".

Lien Steenhuyse. MSc Ghent University (2006), Macrofauna distribution in mangrove forests at different status.

Ellen Pape MSc Ghent University (2006), Distribution of *Terebraria palustris* in *Sonneratia alba* Mangrove forest in Gazi Bay, Kenya

Mwonjoria Francis, MSc in Zoology (Hydrobiology), University of Nairobi, (2006). "Assessment of mangrove ecosystem recovery using fish and benthic communities in Gazi Bay – Kenya".

Kimakwa Edward Wafula, MSc Biology of Conservation, University of Nairobi, (2004). Research in "A study on fish community structure and distribution in the River Sabaki Estuary, Kenya"

Masai Francis Mwenga. MSc Zoology (Hydrobiology), University of Nairobi, 2002/2003. Research in "Distribution and abundance of benthic macroinvertebrates in Lake Naivasha, Kenya".

Gideon Mbithi Kivengea. MSc Zoology (Hydrobiology), University of Nairobi 2000/2001. Research in "The distribution, abundance and exploitation of cray fish *Procambrus clarkii* in Lake Naivasha, Kenya.

Chihenyo Mvoyi, MSc Zoology (Hydrobiology), University of Nairobi 2000/2001. Research in "Assessment of nutrient loading, eutrophication and plankton dynamics in two creeks (Mtwapa and Funzi Bay) in Kenya".

Lionel Dishon Murage, MSc Zoology (Hydrobiology), University of Nairobi 2000/2001. Research in "The biology of the lemon fish (*Flectorhynchus flavomaculatus*) from the Kenyan coastal waters.

PEER-REVIEWED PUBLICATIONS

Muthumbi WN Agnes, Ann Vanreusel and Magda Vincx (2011). Taxon related diversity patterns from the continental shelf to the slope: a case study on nematodes from the Western Indian Ocean (WIO). *Marine Ecology* 32 (2011) 453–467

Vanreusel, Ann; Fonseca Gustavo, Danovaro Roberto, da Silva Maria Cristina, Esteves Andre M, Ferrero Tim, Gad Gunnar, Galtsova Valentina, Gambi Cristina, Genevois Veronica da Fonseca, Ingels Jeroen, Ingole Baban, Lampadariou Nikolaos, Merckx Bea, Miljutin Dmitry, Miljutina Maria, **Muthumbi Agnes**, Netto Sergio, Portnova Daria, Radziejewska Teresa), Raes Maarten, Tchesunov Alexei, Vanaverbeke Jan, Van Gaever Saskia, Venekey Virag, Bezerra Tania Nara, Flint Hannah, Copley John, Pape Ellen, Zeppilli Daniela, Martinez Pedro Arbizu, Galeron Joelle (2010). The contribution of deep-sea macrohabitat heterogeneity to global nematode diversity (2010). *Marine Ecology -an Evolutionary Perspective (Special Topics)* Pg 1-15

Soetaert Karline Franco Maria, Lampadariou Nikolaos, **Muthumbi Agnes**, Steyaert Maaike, Vandepitte Leen, vanden Berghe Edward, Vanaverbeke Jan (2009). Factors affecting nematode biomass, length and width from the shelf to the deep sea: *Marine Ecology-Progress Series* **Volume:** 392 **Pages:** 123-132

M De Troch, M. Raes, **A. Muthumbi**, H. Gheerardyn and A. Vanreusel (2008). Spatial diversity of nematode and copepod genera of the coral degradation zone along the Kenyan coast, including a test for the use of higher-taxon surrogacy. *African Journal of Marine Science* 30:25-33

Ellen Pape, **Agnes Muthumbi**, Chomba Peter Kamanu and Ann Vanreusel (2008). Size-dependent distribution and feeding habits of *Terebralia palustris* in mangrove habitats of Gazi Bay, Kenya. *Estuarine, Coastal and Shelf Science*, Volume 76, Issue 4, 1 March 2008, Pages 797-808.

Gustavo Fonseca, **Agnes W. Muthumbi** & Ann Vanreusel (2007). Species richness of the genus *Molgolaimus* (Nematoda) from local to ocean scale along continental slopes. *Marine Ecology* 28: 446–459

M. Raes, M. De Troch, S.G.M. Ndaro, **A. Muthumbi**, K. Guilini & A. Vanreusel (2007). The structuring role of microhabitat type in coral degradation zones: a case study with marine nematodes from Kenya and Zanzibar. *Coral Reef* 26: 113-126.

Muthumbi Agnes and Ann Vanreusel (2006). Order: Araeolaimida in Fresh Water Nematodes: Ecology and Taxonomy (eds). Abebe et al. eds (CAB).

Muthumbi AW., A Vanreusel, K Soetaert, G. Duineveld and M. Vincx (2004). Meiofauna along the continental slope off the Kenyan coast on the Western Indian Ocean (WIO) with emphasis on nematode assemblages. *International Review Hydrobiologia* 89: 188-205.

Soetaert, K, **Muthumbi, A.** and C. Heip., (2002). Size and shape of ocean margin nematodes: morphological diversity and depth-related patterns. *Mar. Ecol. Progr. Ser.* 242: 179-193.

Flach E, **Muthumbi A.** Heip C (2002). Meiofauna and Macrofauna community in relation to sediment composition at the Iberian margin compared to the Goban Spur (NE Atlantic). *Progr. Oceanogr* 52: 433-457.

Muthumbi A.WN. & M. Vincx (1999). Microlaimidae (Microlaimoidea: Nematoda) from the Indian Ocean: Description of nine new and known species. *Hydrobiologia* 397: 39-58.

Muthumbi AW. & M. Vincx (1998). Chromadoridae (Chromadorida: Nematoda) from the Indian Ocean: difficulties in morphological identification of *Actinonema* Cobb, 1920 and *Rhyps* Cobb, 1920. *Hydrobiologia* 364: 155-167.

Muthumbi A.WN. & M. Vincx (1998). Chromadoridae (Chromadorida: Nematoda) from the Indian Ocean: description of new and known species of the family Chromadoridae. *Hydrobiologia* 364: 119-153.

Muthumbi AW. , K. Soetaert & M. Vincx 1997. Deep-sea nematodes from the Indian Ocean: new and known species of the family Comesomatidae. *Hydrobiologia* 346: 25-57.

Muthumbi AW. & M. Vincx 1997. *Acantholaimus* (Chromadoridae: nematoda) from the Indian Ocean: description of seven species. *Hydrobiologia* 346: 59-76.

Muthumbi A. & M. Vincx 1996. Nematodes from the Indian Ocean: description of six new and species of the genus *Molgolaimus* Ditlevseni, 1921. *Bulletin of the Royal Belgian Institute of Natural History, Biology* 66: 17-28.

Muthumbi AW., D. Verschelde & M. Vincx 1995. New Desmodoridae (Nematoda: Desmodoroidea): three new species from the *Cerriops* mangrove sediments (Kenya) and one related species from the North Sea. *Cah. Biol. Mar.* 36: 181-195.

Verschelde D. **A. Muthumbi** & M. Vincx (1995). *Papillonema danieli* gen. et sp. n. and *Papillonema clavatum* (Gerlach, 1957) comb. n. (Nematoda, Desmodoroidea) from the *Cerriops* mangrove sediments of Gazi bay, Kenya. *Hydrobiologia* 316: 225-237.

WORKSHOPS AND CONFERENCES

IPBES workshop on “Developing potential work program elements for the Intergovernmental Science Policy Platform on Biodiversity and Ecosystem Services (IPBES). 31 Jan-2 Feb 2012, Annapolis, Maryland, USA

Planet Under Pressure Conference focusing on solutions to the global sustainability challenge. London, March 25th to 31st 2012

Oral presentations:

Muthumbi AWN, A. Mutua, A. Vanreusel, V. Wangondu. Meiofauna and nematodes as Bio-indicators of environment status. Second Symposium of Nematodes as Bioindicators Ghent, Belgium 4-6 July, 2012

Muthumbi AWN, A. Vanreusel and M. Vincx (2011). Taxon related diversity patterns from the continental shelf to the slope: a case study on nematodes from the Western Indian Ocean (WIO). In World Conference on Marine Biodiversity (WCMB), Aberdeen, UK, 26 – 30 September 2011

Muthumbi A. Joseph Wakibia, Betty Nyonje and Jacob Ochiemo (2010). Integrated Salt-*Artemia* Production And Mariculture In A Mangrove Wetland At The Kenya Coast Commission of Higher Education-Research Dissemination Workshop at Mombasa Beach Hotel (20th – 24th June, 2010).

Muthumbi A. Mutua A, Ntiba MJ, Vanreusel A. (2009). Assessment of Mangrove Ecosystem Recovery Using Benthic Fauna. Sixth WIOMSA Symposium, St Denis, la Reunion, 24-29 August 2009 (Oral)

Mutua K. Amos, **A. Muthumbi**, MJ. Ntiba, Ann Vanreusel (2009). Meiofaunal recruitment in response to different food type additions to azoic sediments in a tropical mangrove: A field experiment. Sixth WIOMSA Symposium, St Denis, la Reunion, 24-29 August 2009 (Oral)

Muthumbi A. Mutua K. Amos, MJ. Ntiba, Ann Vanreusel (2009). The Nematofauna of a restored Kenyan mangrove ecosystem: Spatio-Temporal variation. Sixth WIOMSA Symposium, St Denis, la Reunion, 24-29 August 2009 (Oral)

Mutua K. Amos, **A. Muthumbi**, MJ. Ntiba, Ngondi, D and Ann Vanreusel (2009). Evidence of slow restoration of mangrove associated Macro-endofauna after restoration of *Rhizophora mucronata* mangrove in Gazi bay, Kenya. Sixth WIOMSA Symposium, St Denis, la Reunion, 24-29 August 2009 (Poster)

Mutua K. Amos, **A. Muthumbi**, MJ. Ntiba, Ann Vanreusel (2009). Trends in Meiobenthic colonisation as an indicator of recovery of the benthic ecosystem in reforested *Rhizophora mucronata* mangroves in Gazi Bay, Kenya. Sixth WIOMSA Symposium, St Denis, la Reunion, 24-29 August 2009 (Poster)

Muthumbi A. Musombi E and Mutua A (2007). Meiofauna Zonation In Mangrove Ecosystem, Gazi Bay, Kenya. 5th WIOMSA Symposium, 22-26 October, 2007 in Durban, SA (Oral & Poster)

Muthumbi Agnes and Ann Vanreusel. Nematode Species richness: patterns in the deep sea. In Integrating biodiversity science and human well-being. Oaxaca, Mexico, 9-12 November, 2005.

Muthumbi Agnes, Mutua Amos and Francis Mwonjoria. Biodiversity Research in Kenya. In Integrating biodiversity science and human well-being. Oaxaca, Mexico, 9-12 November, 2005. (Poster)

Muthumbi Agnes. Status of Benthic Taxonomy in Kenya. In Marine Data Base and Taxonomy Workshop, Merica Hotel Nakuru, Kenya (March 2005).

Agnes Muthumbi, Ann Vanreusel, Francis Mwonjoria. How variable are meiofauna communities in different mangrove forests? In Twelfth International Meiofauna Conference, Ravenna, Italy (July, 2004)

Maarten Raes, Wilfrida Decraemer, **Agnes Muthumbi**, Jacques Vanfleteren and Ann Vanreusel. Worms on Corals: Ecology, Biogeography and Phylogeny Combined. In Twelfth International Meiofauna Conference, Ravenna, Italy (July, 2004).

Flach Elsiner, **Agnes Muthumbi** Carlo Heip. Meiofauna and Macrofauna community in relation to sediment composition at the Iberian margin compared to the Goban Spur

(NE Atlantic). In Omex II-II Final Workshop (May, 2000). The carbon cycle in the Iberian Margin, Liege, Belgium.

Muthumbi Agnes and Magda Vincx (July, 1998). Nematode assemblages in the Indian Ocean. Tenth Meiofauna Conference, Plymouth UK (July, 1998)

Muthumbi Agnes Nematode community structure along the continental slope off the Kenyan Coast, (WIO). In Second WIOMSA Scientific Meeting in Dar Es Saalam, October, 2001 (Poster)

Muthumbi Agnes and Magda Vincx (July, 1998). Some difficulties in morphological identifications of *Actinonema* Cobb, 1920 and *Rhips* Cobb, 1920, *Dorylaimopsis* Ditlevsen, 1918. In Tenth Meiofauna Conference, Plymouth UK (July, 1998) (Poster)

Muthumbi Agnes, Yvette M. Vermeulen and Magda Vincx (July, 1995). Response to tidal dessication of free-living marine nematodes in tropical sediments. In Ninth International Meiofauna Conference (NIMCO), Perpignan, France (July, 1995) (Poster)

Vermeulen M. Yvette, **Muthumbi Agnes** and Magda Vincx (July, 1995). Vertical migration patterns of an intertidal meiofauna community in the *Cerriops* mangrove sediments (Gazi bay, Kenya). In Ninth International Meiofauna Conference (NIMCO), Perpignan, France (July, 1995). (Poster)



GIDEON H. N. NYAMASYO PhD (1988); Msc (1979); Bsc (1975)

CURRICULUM VITAE

Summary

At 62 years of age, Prof. Nyamasyo holds a Ph.D in ZOOLOGY (the ecology of grassland termites) awarded by the University of Nairobi. He is a Professor in the School of Biological Sciences where he teaches courses in insect science, pest management, animal behaviour, and environmental protection. He is a registered Environmental Impact Assessor and Auditor and has written over 600 EIA/EA reports to NEMA. He has severally acted as an environmental diplomat by representing the Kenya Government, sometimes as the technical team leader, in several international meetings and conferences on Environmental matters organised by the United Nations Environment Programme (UNEP). In this connection, he has also served in national committees on Biodiversity, Desertification, and Climate Change. He is an elected Director of and Secretary to the AIMI MA KILUNGU Ranch Board, a land share-holding company in Mukaa District. He is the founder and director of the Kenya Initiatives for Development (KID), a registered non-governmental organisation which has initiated, through local community- based organisations, several environment protection projects in Kilome and Malili Divisions respectively. Prof. Nyamasyo is an accomplished researcher in several aspects of insect science and environment. The researches have entailed capacity building of students in research and local communities. He has co-authored several books and reports on entomology and biodiversity.

CURRICULUM VITAE

Prof. Gideon H. N. Nyamasyo

1. Address: University of Nairobi; School of Biological Sciences; P.O Box 30197, Nairobi.
Telephone :Office:0204 442316; Fax (020)4 445763,
; E-mail: gnyamasvo@gmail.com or gnyamasyo@uonbi.ac.ke
Mobile: 0722874591

2. Personal Data: Age: 62 years; Place of Birth: Makueni District, Kenya. Senior Lecturer/Zoologist/Entomologist/Environmentalist. Proficient in English, Swahili and Kamba.
3. Professional Experience: 2002 to date - Senior Lecturer; 1988 - 2002-Lecturer; 1986-1988 Assistant Lecturer, 1983 - 86, Tutorial Fellow; 1979-83, Graduate Research Trainee (ICIPE Research Centre); 1975 – 79, Agricultural Research Officer (Ministry of Agriculture).
4. Consultancies:
- (i) 1999: The development of NBSAP, Ministry of Environment, Kenya [Report available].
 - (ii) 2002: Biennial review (internal) for the GEF/SGP projects in Kenya [Report available].
 - (iii) 2003: The 9th GEF/SGP stakeholders training workshop, Garden Hotel, Machakos.
 - (iv) 2005. Ex-poste study on selected GEF/SGP projects in Kenya.
 - (v) 2006: National Capacity Building Needs Assessment for biodiversity conservation.: Lead Consultant [7 Reports available].
 - (vi) 2007: EIA Lead Expert for 120 Celtel Base Transceiver systems countrywide. (CF Bougainvillaea Ltd), Safaricom and others.
 - (vii) 2007/2008: EA Lead expert for over 300 projects countrywide.
 - (viii) 2009 Lead Consultant The 4th Kenya National Report of the Convention on Biological Diversity.

(ix) 2011/2012 several EIA/EA reports to NEMA.

THESES, PUBLICATIONS, REPORTS AND CONTRIBUTION TO BOOKS

1. Nyamasyo, G.H.N. (1978): Studies on the Insecticide resistance in cotton stainers, *Dysdercus* spp. (Hemiptera: Pyrrhocoridae) in Kenya, M.Sc University of Nairobi.
2. Nyamasyo, G.H.N. (1986): Some aspects of the ecology and behaviour of Savannah ants (Hymenoptera; Formicidae) and their impact on termite (Isoptera) prey populations in Kajiado District, Kenya Ph.D. University of Nairobi.
3. Nyamasyo, G.H.N. & A.K. Karel (1982): Studies on insecticide resistance in cotton stainers, *Dysdercus* spp. (Hem: Pyrrhocoridae) in Kenya. Bull Ent. 72,461 - 465)
4. Nyamasyo, G.H.N (1988): Macrotermes Michaelsoni (Isoptera; Macrotermitinae) foraging ant predatory strategies. Sociobiology 15(2): 213 - 218.
5. Jembere, B. Obeng - Ofori, D.; Hassanali, A; Nyamasyo, G.H.N (1995). Products derived from the leaves of *Ocimum kilimandscharicum* (Labiatae) as post – harvest grain protectants against the infestation of three major stored product insect pests. Bull Ent. Res. 85,361-367.
6. Nyamasyo, G.H.N. (1995). Termites (Isoptera) are an indispensable component in the arthropod trophic relationships in the semi-arid ecosystem. Termite Research and Control workshop proceedings, pp 68-79.
7. Nyamasyo, G.H.N. (1979): Predation on grassland termites in semi-arid Savannah at Kajiado, by the ant *Megaponera foetens*. 7th Annual Report, 1979.
8. Nyamasyo, G.H.N (1980) Predation on the grassland termites in the semi-arid Savannah at Kajiado by the ant *Megaponera foetens*. 8th Annual Report, 1980.
9. Nyamasyo, G.H.N, (1985): What determines the fraction and composition of recruited raiders in the ant *Megaponera foetens* (Hymenoptera). 19th International Ethological Conference, Toulouse, France, Vol.2
10. Nyamasyo, G.H.N. & Olubayo F. contributed all the information on crop pests and their control published in the Fanners Directory by Honeybee Communications. Ed. R. Gachuhi pp 1-239.
11. Nyamasyo, G.H.N., Kahindi J.H., Ndongye, P. (Editors). Proceedings of the biodiversity familiarisation workshop (June 1996).
12. Kasina, J., Nderitu, J., Nyamasyo, G., Olubayo, F., Waturu, C., Obudho, E., Yobera, D. (2006). Diurnal population trends of *Megalurothrips sjostedti* and *Frankliniella occidentalis* (Thysanoptera : Thripidae) and their natural enemies on French bean *Phaseolus vulgaris* (Fabaceae). International J. Trop. Inse. Sc. Vol. 26 No. 1 pp. 2 – 7.
13. Kasina J., Nderitu J., Nyamasyo G., Olubayo F., Waturu C., Obudho E., Yobera D. (2006). Evaluation of companion crops for thrips (Thysanoptera : Thripidae) management on French bean *Phaseolus vulgaris* (Fabaceae).
14. Capacity needs for developing methodologies to evaluate and mitigate specific threats to components of Biological Diversity. A NEMA & UNEP Report (2006). I was the lead consultant. PP 1 – 56.

15. Capacity needs for development and implementation of General measures for *in-situ* and *ex-situ* conservation and sustainable use of Biological Diversity in Kenya. A NEMA & UNEP report (2006). I was the lead consultant PP 1 – 48.
16. Capacity building needs for the design and implementation of incentive measures to conserve biological diversity in Kenya. A NEMA & UNEP Report (2006). I was the lead consultant. PP 1 – 29.
17. Capacity needs for preservation and maintenance of Biological Diversity related knowledge of indigenous and local communities with traditional lifestyles. A NEMA & UNEP Report (2006). I was the lead consultant. PP 1 – 72.
18. Capacity Building Needs for Access to Genetic Resources and Benefit Sharing Mechanisms in Kenya. A NEMA & UNEP Report (2006). I was the Lead Consultant (PP 1 – 44).
19. Capacity Building Needs for Conservation and Sustainable Use of Biological Diversity important to Agriculture in Kenya. A NEMA & UNEP Report (2006). I was the Lead Consultant (P 1 – 51).
20. Capacity Building Needs and country specific priorities in the Conservation of Biological Diversity in Kenya: Synthesis Report (2006). A NEMA & UNEP Report. I was the Lead Consultant (PP 1 – 46).
21. Nyamasyo G. H. N. & Nderitu J. H. (2007). Invertebrate Zoology for Beginners. Published by Equatops Trading, pp. 1 – 135.
22. Nderitu J. H., Kasina, M. J., Nyamasyo G. N., Waturu C. N. & Aura J. (2008). Management of Thrips (Thysanoptera : Thripidae) on French beans (Fabaceae) in Kenya: Economics of Insecticide Applications. Journ. Entomol. 5 (3): 148 – 155.
23. S. Ondiaka, N. K. Maniania, G. H. N. Nyamasyo & J. H. Nderitu (2008). Virulence of the entomopathogenic fungi *Beauveria bassiana* and *Metarhizium anisopliae* to sweet potato weevil *Cylas puncticollis* and effects on fecundity and egg viability. Ann. Appl. Biol. (2008) p. 1 – 8.
24. F. O. Ayuke; N. K. Karanja; E. M. Muya; B. K. Musombi; J. Mungatu and G. H. N. Nyamasyo (2009): Macrofauna diversity and abundance across land use systems in Embu, Kenya. Tropical and Sub-tropical Agroecosystems. PP. 371 – 384.
25. N. K. Karanja; F. O. Ayuke; E. M. Muya; B. K. Musombi and G. H. N. Nyamasyo (2009): Soil macrofauna community structure across land use systems of Taita, Kenya. Trop. and Sub-trop. Agroecosystems PP. 385 – 396.
26. J. J. Muturi; J. P. Mbugi; J. M. Mueke; Jan Langerlof; J. K. Mungatu; G. H. N. Nyamasyo and M. Gikungu (2009). Collembolan density and diversity along a gradient of land use types in Embu District, Eastern Kenya. Tropical & Sub-tropical Agroecosystems PP. 361 – 369.

27. J. H. Nderitu, G. H. N. Nyamasyo & J. M. Kasina (2008). Eds. Agricultural Entomology [Practical Aspects of Agric. Entomology]. First Edition, Published by Equatops Trading PP. 1 – 150.
28. 4th National report to the Conference of Parties of the Convention on Biological Diversity (July 2009). A report of the Republic of Kenya, Published by National Environment Management Authority (NEMA). I was the Lead Consultant PP. 1 – 66.
29. J. Nderitu; M. Sila; G. Nyamasyo & M. Kasina (2009). Insect species associated with sweet potatoes (*Ipomoeae batatas*) (L.) (LAMK) in Eastern Kenya. Int. J. Sustain. Crop Prod. 4 (1): 14 – 18.

CONFERENCE, SYMPOSIA, VISITS, WORKSHOPS, TRAINING (Selected from over 60 items)

1. 15 Jul - 5 Aug 1979 ICIPE/UNEP group training course on pest and vector management, Nairobi.
2. 18-21 Jun 1990 National Striga weed workshop, Kisumu, Kenya
3. 1991(two weeks) Regional Training on the biology and control on Migrant Pests, DLCO, Kenya.
4. 24-26 Oct 1996 Regional African Ministerial Conference on the Convention on Biological Diversity, UNEP, Nairobi, Kenya.
5. 26th – 27th Sep. 1996 Kenya Agricultural Research Institute, Centre Research Advisory Committee (CRAC) for crop protection. NARL, Nairobi. (As a resource person).
6. May 1st – 17th 1998 Fourth Conference of the Parties to the convention on Biological Diversity, Bratislava, Slovakia.
7. Nov. 17th – 21st, 1998 National Biodiversity Strategy and Action Plan (NBSAP) Project planning team training workshop. Garden Hotel, Machakos, Kenya.
8. Jan 31-Feb.4, 2000 5th Conference of the subsidiary body for Scientific Technical and Technological Advice (SBSTTA-5); Montreal, Canada (As a Kenyan delegate),
9. May 15-26 May 2000 5th Conference of the parties to the convention on Biological Diversity, UNEP Headquarters Gigiri, Kenya.
10. 5th – 8th June 2001 The National Sensitisation Seminars in Intellectual Property Rights (IPRs) organised by KIPO, Lilian Towers Hotel, Nairobi.

11. 11th – 13th July 2001 The workshop on Capacity Building in Biotechnology and Biosafety at ICIPE and presented a paper entitled “Impact Assessment in Modern Biotechnology Products on Agricultural Biodiversity”.
12. 12 – 14 Sep. 2001 The workshop on Wastes and chemical management, KCCT-Mbagathi, Nairobi.
13. 1 – 5 Oct. 2001 Attended the 2nd meeting of the Intergovernmental Committee for the Cartagena Protocol on Bio-safety (ICCP-2), Gigiri, Nairobi as a government delegate.
14. 29 Oct. – 3 No. 2001 The First National Workshop on Medicinal, Aromatic and other under utilised plant species in Kenya. Kenya Wildlife Training Institute, Naivasha, and presented a paper entitled “Transgenic technology is set to threaten the livelihood of the Kenyan subsistence farmer”.
15. 12 – 16 Nov. 2001 The 7th Meeting of the Subsidiary Body on the Scientific technical and Technological Advice (SBSTTA-7) of the Convention on Biological Diversity (CBD). Montreal, Canada.
16. 22 – 23 Jan 2002 National Consensus building workshop for world summit on sustainable development (Rio +10) at the Kenya School of Monetary Studies, Nairobi.
17. 8 – 12 July 2002 The 3rd Global Taxonomy Workshop, Pretoria, South Africa.
18. 27 – 30 Jan 2003 (Facilitator). The 9th GEF/SGP Stakeholders Training Workshop, Garden Hotel, Machakos.
19. 13-17 Nov. 2004. Workshop of The Research programme on sustainable use of dryland project, Merika Hotel, Nakuru, Kenya.
20. 19-28 Oct. 2005 The 7th Conference of the Parties to the UNCCD, Nairobi, Kenya.
21. 11-16 April 2005 The Annual meeting of Below Ground Biodiversity, Brazil.
22. 20-31 March 2006 The 8th Conference of Parties to CBD. Curitiba, Brazil
23. 2-4 May 2006 Nile Basin Initiative micro-grants Regional Capacity building Workshop, Cairo Egypt.
24. 4-7 Sept. 2006 NBI, Regional Soil Erosion Workshop and Watershed Management, Addis Ababa, Ethiopia.
25. ----- 2006 12th COP of UNFCCC, Nairobi, Kenya.
26. 15th Jan 2009 Conservation sustainable use and benefits sharing of Biodiversity. A key note address I gave during the Intellectual Property Initiative (IPI) launch organized by the Institute of Economic Affairs (IEA), Norfolk Hotel, Nairobi.

27. July 2nd 2009 GEF National Stakeholders sensitization workshop. KICC, Nairobi, Kenya.
11th Nov. 2009. Worst case scenario: The morning after Kenya's water resources dry up. I gave the lecture at the Goethe Institute, Nairobi.
28. 11th Nov. 2009 Worst case scenario: The morning after Kenya's water resources dry up. I gave the lecture at the Goethe Institute, Nairobi.

SUPERVISION OF STUDENTS STATUS AND THEIR THESES TITLES

Ph.D:

1. Wanja, E.W. (1996): Title of Project "Variety screening in Banana (Musa) for resistance to the borer weevil *Cosmopolites sordidus*". University of Guelph, Canada.
GRADUATED
2. Bekele, J.A. (1995) Effects and use of some ocimum plant species and their essential oils on some storage insect pests. Ph.D., University of Nairobi. 1st Supervisor.
GRADUATED
3. Kibberenge, M.B. (2003). The diversity of Earthworms and their ecology in community based land management systems: A case study of Taita and Embu.
SUBMITTED
4. Obonyo, Dennis,(2005). Tritrophic interactions between parasitoids, lepidopteran stem borers and Bt. Maize in Kenya.
PASSED.
5. Asiko, Grace. 2005 Pollination of Strawberries by stingless bees in Kenya.
PASSED.
6. Muturi Jamleck (2007). Influence of land use practices on the diversity and density of Collembola in Embu and Taita, Kenya.
GRADUATED

MSc's

6. Mwangi, C.G.K. (1996). Evaluation of different acaricide mixture on the control of the red spider mite *Tetranychus telarius* (Linnaeus) on cotton. M.Sc., University of Nairobi. 1st Supervisor.
PASSED
7. Bett, P.K (1993). Food preferences of *Acanthoscelides obtectus* (Coleoptera: Bruchidae). Oviposition behaviour and its effects on bean varieties. MSc. 1st Supervisor.
PASSED.

8. Mugo, H.M. (1994). Pod borer insect pests attacking pigeon pea, *Cajanus Milisp* at flowering stages and their impact on yield in Kenya. MSc., University of Nairobi. 1st Supervisor.
PASSED.
9. Kamande, S. (1995) The efficacy of various products on the preservation of wood exposed to termite attack at Chiromo, Nairobi. 1st Supervisor.
PASSED.
10. Waiganjo, M.M. (1996). The biology and ecology of Diamond Back moth *Plutella xylostella* (L) with special reference to susceptibility of six varieties grown in Kenya. 1st Supervisor
PASSED.
11. Ngari, B.M. (1998) The role of natural enemies in population regulation of bean fly complex *Ophiomyia* Spp in Kakamega, Kenya. 1st Supervisor.
PASSED
12. Gikungu, M.W. (Msc.): Studies in the populations of stingless bees and their food availability in Mount Kenya Forest.
PASSED
13. Ochiel, B.A. (2000). Termites - host tree relationships in Kibwezi and their response to two botanical pesticides, namely *Melia volkensii* (Gurke) and *Azandiracta indica*
PASSED
14. Kasina, J. M. (MSc. 2004). Evaluation of plant extracts, intercropping and companion crops as IPM components for thrips (*Frankliniella occidentalis* Perganda) and *Megalurothrips sjostedti* (Tryborn) on French beans (*Phaseolus vulgaris*).
PASSED
15. Ochieng' P. (2000). The insect fauna of Nairobi National Park and the need for their conservation for eco tourism development.
PASSED
16. Sila Martha (MSc. 2004). Efficacy of *Steinernema kari* and *Heterorhabditis indica* in the management of the sweet potato weevil (*Cylas puncticollis*) in Kibwezi.
PASSED
17. Oronje Rosemary (MSc. 2006). Efficacy of *Steinernema kari* and *Heterorhabditis indica* in the management of the sweet potato weevil (*Cylas puncticollis*) in Kibwezi
PASSED
18. Ondiaka Sopher (MSc. 2006). Pathogenicity of entomopathogenic fungi *Beauveria bassiana* (Balsamo) Vuillemin and *Metarhizium anisopliae* (Metsch) Sorokin to *Cylas puncticollis* (Coleoptera : Curculionidae) on sweet potato tuber.
PASSED
19. Mwangi, F. G. (MSc 2006): Evaluation of bordercrops, intercrops and pesticides and management strategies of thrips (*Frankliniella occidentalis* and *Megalurothrips sjostedti*) on French beans (*Phaseolus vulgaris* L.)
PASSED

20. Kandie, P.K. (MSc. 2006): Integrated management of bean bruchid, *Acanthoscelides obtectus* Say (Coleoptera : Bruchidae), on stored beans in Eastern Kenya.
PASSED
21. Magambo, E (Mrs) (2006): Status of land degradation of Kaketa riverine eco-system and its impact on people's livelihoods.
PASSED
22. Kitivo E. N. (Mrs.) 2007: The Diversity and abundance of subterranean termites in different land cover types: A case study of Embu and Taita Hills, Kenya. [on – going]
23. Wambugu C. (2007): Survey of soil mites (Acari) diversity and densities in different land use types in Embu and Taita districts, Kenya
PASSED
24. Nkirote Ann (2009): Reversing land degradation in Kenya: A case study of the GEF – SGP co-financed land degradation cluster projects in Makueni Division, Mukaa District, Kenya.

AREAS OF RESPONSIBILITIES.

(a) At University Level

1. Member of Zoology Department Syllabus Review Committee.
2. Member of the Departmental Committee on Planning, Programming, Budgeting and Financing of the University of Nairobi (Year 1996).
3. 1996 – 2004: Co-ordinator, Zoology postgraduate studies committee.
4. 2006 – to date. Chairman, Staff Welfare Committee.
5. 2011-to date SBS representative to Senate

(b) At National Level

6. 1994-2000. Member of the Inter-Ministerial Committee on Environment, Sub-Committee on Biodiversity (IMCE)
7. 1998-2000. Chairman of the Biodiversity Sub-Committee of the (IMCE).
8. 1998 Member of the National delegation to the 4th COP-CBD, Bratislava, Slovakia.
9. 1998 - May 2000 Chairman Technical committee for the Kenyan delegation to the 5th Conference of parties to the CBD.
10. 2000. Member of the National delegation to the 5th COP-UNCCD, Nairobi, Kenya.
11. 2005. Member of the National delegation to the 7th COP-UNCCD, Nairobi, Kenya.
12. 2006. Member of the National delegation to the 8th COP-MOP3 CBD, Curitiba, Brazil
13. 2006. Member of Civil Society delegation attending the 12th COP – UNFCCC, Nairobi, Kenya.

14. 2010 Member of National Delegation to the 14th Session of SBSTTA (Subsidiary Body for Technical and Technological Advice) of the CBD (Convention on Biological Diversity) , UNEP , Nairobi, Kenya.

15. 2011 Member of the National Preparatory committee for the CBD-SBSTTA Meeting.

(c) At Community Level

15 1991-1999 Served as a Board Member for Mukaa Secondary School.

16. 1994-todate. Founder and Executive Director, Kenya Initiatives for Development, an NGO.

17 2004-todate. Secretary, Board of Directors, AIMI MA KILUNGU Ranch, a 25,000 acre ranch with 1500 members

18' 2007 – to date Coordinator African Inland Church Jericho, Fund Raising Committee

FUNDED PROJECTS.

1. Development and implementation of Management Strategies for Sweet Potato Weevil, *Cylas* sp. in Eastern Kenya.

(A research funded by the Rockefeller Foundation – Forum on Agriculture, Resource Husbandry – 2001). (CONCLUDED) US \$ 65,000 (Concluded)

2. Assessment of pollinators and their role in the conservation of dryland biodiversity in Makueni District, Kenya. (CONCLUDED). A project funded by the RPSUD. US\$ 20,000 (2004 – 2006).

3. Development of guidelines for the management of land degradation in Makueni District, (COMPLETED A GEF/SGP cluster project. US\$ 300,000 (2004 – 2010).

4. Conservation and sustainable management of below ground biodiversity. An ongoing global GEF project. Head of macrofauna group. (A GEF full size project [COMPLETED]

5. Conservation and management of pollinators for sustainable agriculture through an ecosystem approach. An ongoing global GEF project. Chairman of the Kenyan Team.

COURSE UNITS TAUGHT AT UNIVERSITY LEVEL

	Course Unit	Code	Year of study
1.	Animal ecology and behaviour	SZL 203	II
2.	Applied entomology	SZL 405	IV
3.	Ethology	SZL 412	IV
4.	Conflicts in resources use and the environment	CGP 527	MA
5.	Environmental protection	CGP 520	MA
6.	Environmental management and sustainable development	CGP 525	MA
7.	Conservation of biological diversity	CGP 533	MA

8.	Stored products pests and their control [3 UNITS]	SZL 534 SZL 535, SZL 536	MSc
9.	Crop pests and beneficial insects	SZL 530	MSc.
10.	Pest Management	SZL 531	MSc.
11.	Assessment of field crop losses due to insects	SZL 532	MSc.
12.	Pesticide chemistry and applications	SZL 533	MSc.
13.	Agroecology and agroecosystems	SZE 401	IV

YOUTH MENTORSHIP

- (i) 2010/11 **Lydia Mbogo. Guided to study for her M.Sc. in the Biology of Conservation**
- (ii) 2008: W. Ochillo. Facilitated and guided to carry out the EIA study report for the Kilome Land Degradation Project
- (iii) 2007: M. Mugeru, S. K. Ondiakha, P. N. Karoki, and B. Njoka. Facilitated and guided to carry out the baseline study for the Kilome land degradation project.
- (iv) 2006: M. Mugeru, F. Rapando, Ms. M. M. Namusonge, Ms. G. Ngaruiya, Ms. D. Odongo, Ms. C. W. Maina, Ms. L. Mugo. Facilitated and guided to carry out the baseline study for Aimi Ma Kilungu Ranch.
- (v) 2005: Ms. S. Wachira, S. Maundu, Ms. S. Mbai, Ms. R. N. Chege, Ms. L. Wandera, Ms. M. L. Oronje. Facilitated and trained to participate in the 7th COP of the UNCCD.

COMMUNITY MENTORSHIP

- (i) 2004 to-date Played a guiding role to TEN CBOs in their efforts to implement environmental development projects; These are:-
- Meko Ma Kwa Nduuka Women group which has built a check dam at Kwa Nduuka across the lower Kaketa river. The dam provides water to the community and the Mukaa Girls Secondary School especially during the dry season.
 - Kiumoni Environmental Rehabilitation Group has dug several Km lengths of cut off trenches to reduce soil erosion at the Upper Kaketa River near Kilome forest block
 - Wema Self Help group has constructed THREE check dams across the USI-UNENE which has turned the river into a sand holding system.
 - Ndaatai CBO has dug cut-off trenches around the gazetted Ndaatai hill which now protects the hillsides from erosion.
 - Kavuko FFS CBOcut-offs along the Kavuko hill sides
 - Aimi ma Kavuko.....cut-offs along Kathungu hill sides
 - Kavuko Self Help.....gabions across Kwa Kikwu gully
 - Thome Wa Kima CBO...desilting the Mbuu dam
 - Wasya wa Tuvilani.....Bee keeping and tree nursery development
 - Pollen Youth Group...Bee Keeping and water distribution projects.
- (ii) 2003-to-date Established the Kavuko Community Centre , a facility for empowering communities and individuals in various aspects of development.

CURRICULUM VITAE: STELLA WATTIMAH SIMIYU (Ms.)

Nationality : Kenyan

Address :

Marital Status : Married

P.o. Box 45166

Date of Birth : 15.4.1964

Nairobi 00100

Place of Birth : Bungoma

Tel : 254 721 364 289 Fax : 254 20

890615

Email: Stella.simiyu@bgci.org

DESIGNATION:

Current designation: Technical Advisor –
Ministry of Environment and Mineral
Resources, Kenya:

Role – To support the production of the
Natural Capital of Kenya including the
Biodiversity Atlas of Kenya and provide
support on biodiversity related matters.

Other duties have included preparation of
the Kenyan Bid to host the secretariat for
IPBES, organisation and hosting the African
Preparatory Meeting for COP 11 in Nairobi;
input into fourteenth African Ministerial
Conference on Environment presenting a
proposal to establish an African Group of
Negotiators on Biodiversity, input into
Kenya's preparatory process for CBD COP
COP 11, member of Kenyan delegation to
IPBES Panama Meeting (April 2012),
Rio+20 Conference (June 2012) and
AMCEN (September 2012) among others.

Previous Experience - Implementation of
the Convention on Biological Diversity
(CBD); biodiversity conservation and
sustainable use, Global Strategy for Plant
Conservation, Biodiversity Informatics,
Capacity building, policy development and
implementation, institutional strengthening,
resource mobilization and M&E.

2010 – 2011 – Support to the National
Council of Science and Technology in
Kenya to develop the Kenya national
Bioscience Policy and Bill.

2009 – 2011: **Botanic Gardens**

**Conservation International–
Developing a regional centre of
Excellence in Biodiversity
Informatics in East Africa,
funded by the JRS Foundation
to enable national and regional
biodiversity institutions in East
Africa, National Councils for
Science and Technology, relevant
ministries and partners to
consolidate efforts at regional level
to develop infrastructure, technical
and technological capacity and
capability to manage and
disseminate biodiversity
information in online and
accessible formats and platforms
for conservation, use, planning and
development.**

2003 – 2010: **Consultant, Botanic
Gardens Conservation International,
Seconded to the Secretariat of the
Convention on Biological Diversity as
Programme Officer, Global Strategy for
Plant Conservation:**

- Provided technical support for the
CBD secretariat as programme
officer for the GSPC from 2003 to
2010; including preparation of
meetings and technical documents
on the progress of the
implementation of the Strategy
globally for the UN Convention on
Biological Diversity (CBD)
Conference of the Parties Meetings
(COP) 6 (Netherlands) , 7 (Malaysia),
8 (Brazil), 9 (Germany), 10 (Japan)
and UN CBD Subsidiary Body for
Scientific, Technical and
Technological Matters (SBSTTA) 8
(Canada), 9 (Thailand), 10 (Canada),
12 (France) and 14 (Kenya).
- Facilitated the in depth review of the
Global Strategy for Plant
Conservation for the Convention on

Biological Diversity (CBD), twelfth meeting of the Subsidiary Body for Scientific, Technical and Technological Matters (SBSTTA 12) and the ninth Conference of the Parties of the CBD (COP 9), in May 2008.

- Created awareness and understanding of the Strategy through various keynote addresses and plenary presentations to various global and regional biodiversity, conservation and botanical congresses and national meetings and workshops e.g. Japan, Spain, China, Montserrat, Mexico, Canada, UK, Belgium, Ireland, Abu Dhabi, South Africa, USA, Austria, Uganda, among others.
- Supported the development of national and regional Strategies and Responses to the Strategy including in Seychelles, Madagascar, China, Japan, Caribbean Region, Ireland, Germany and Europe (through the Planta Europa network).
- Organised regional capacity building workshops to support the implementation of the Strategy in Africa, Caribbean Region, Japan, Seychelles, the Americas, and Spain.
- Supported the development and launch of the Global Partnership for Plant Conservation bringing together major partners and stakeholders such as partners such as FAO, ICRAF, BGCI, IUCN, Bioversity International, Plantlife International, GBIF, Royal Botanic Gardens Kew, among others.
- Produced the Plant Conservation Report as a communication tool on the progress in the implementation of the Strategy and the achievement of its sixteen outcome targets in 2008, published by the CBD Secretariat in collaboration with BGCI and translated into Spanish and French.
- Undertook a consultation process and facilitated meetings to develop a consolidated update of the Strategy

beyond 2010, whose proposal was reviewed by UN CBD SBSTTA 14 Meeting (May, Kenya) and then adopted at UN CBD COP 10 Meeting (Nagoya Japan)

2007-2010: BGCI and Project Leader: JRS
Biodiversity Foundation
supported East African
Regional Project on the
implementation of the Global
Strategy for Plant Conservation.
(additional support raised from
Mitsubishi Foundation, IUCN
Netherlands, IUCN SSC, GBIF
and Alan and Nesta
Foundation).

- Oversaw the implementation of the regional BGCI JRS Project to implement the Global Strategy for Plant Conservation in East Africa, including hosting five regional workshops to build capacity; developing a regional list of East African Plants as master list for databases in the region, undertaking red list assessments of endemic plants in the region as well as Conservation assessments and management planning for medicinal plants; working with Partners from Costa Rica (INBIO); India (FRLHT), Denmark (GBIF); UK (IUCN) and raising additional co finance to complete the project.
- Raised additional funding to support the JRS Project and further establish the National Museums of Kenya as a centre of excellence in biodiversity informatics.

2008 -2009: Consultant BioNET
International to develop an East
African Regional project
proposal and develop project on
mobilizing taxonomic
information for end users,
funded by SWEDBIO , Sweden.

Worked with the East African partners of BioNET International to mobilize resources, develop and

set up the UVIMA project on mobilizing taxonomic information on pests, pollinators and invasive aliens species to develop tools and products relevant key stakeholders for conservation and development. Activities included concept development, organisation and hosting of the project development workshop, development of main project proposal, set up of project implementation structures and building capacity for project team.

OTHER CONSULTANCIES

June 2006: Consultant, International Development Research Centre (IDRC) Canada. Developed a Strategy Background Paper on the East African initiative on Traditional Medicine and Medicinal Plants for the International Development Research Centre, East and Southern Africa Regional Office, Nairobi, Kenya.

2002 – 2007: Project Leader for the Network for Medicinal Plants and Traditional Medicine for East Africa” funded by the International Development Research Centre, Canada. Developed, mobilized resources and implemented the regional project for East Africa. The network focused on three themes: Conservation and sustainable management of medicinal plants, improving safety and efficacy in use of the Traditional medicine, as well as developing the policy framework at national level. The project supported the development of a national policy on traditional medicine and medicinal plants in Kenya.

May 2006: Consultant BioNET International. Strategic Review.
Undertook a Strategic Review aimed at Renewing BioNET International

– the Global Network for Taxonomy. Examined ways to renew BioNET so it can deliver its programme sustainably by responding in a timely and effective manner to emerging challenges and scenarios and recommended options and elements for BioNET’s strategic objectives 2006-10. These recommendations were incorporated into the BioNET Strategic Plan 2006 - 2010

January 2006: Consultant Botanic Gardens Conservation International (BGCI).

Undertook a preliminary strategic review of BGCI - Redefining the Role of Botanic Gardens Conservation International with a focus on BGCI and its role in poverty alleviation and sustainable development and Redefining the role of Botanic Gardens to present contextual relevance *vis a vis* 2010 biodiversity target and the Millennium Development Goals.

2005: Lead Consultant for the Terminal Review of the UNDP/GEF Southern Africa Botanical Network (SABONET Project - nine year project in ten southern African Countries).

Assessed the relevance, performance and success of the project using the GEF review criteria of implementation approach, country ownership and drivenness, stakeholder participation and public involvement, sustainability, replication approach, financial planning, cost-effectiveness, and monitoring and evaluation.

2004: Member of the External Review Team for BioNET International, through IUCN Head Office, Gland, Switzerland, to review impact of SDC, Switzerland funding to BioNET, who were the main strategic partner for BioNET International.

- 2004: Consultant IISD - Expert Opinion:**
Essay on Intellectual Property Rights, Environment, Trade, Sustainability and Livelihoods – The Local Agenda: for International Institute for Sustainable Development, IISD.
- 2003: Consultant International Development Research Centre,** (IDRC, Ottawa, Canada), undertook a global review and developed an issue paper on the conservation and sustainable use of medicinal plants.
- 2002: Consultant IDRC -** Undertook a review on the OAU DECADE on Medicinal Plants and traditional Medicine: needs and perspectives for the IDRC Regional Office for Southern and Eastern Africa
- 2000: Co evaluator – External Triennial Review of the National Botanical Institute – South Africa.** Reviewed the institutional, financial and scientific structure of the NBI's five herbaria and eight botanical gardens and recommended the framework for the next triennium (2001 – 2004).
- 1998: Co evaluator – Mid Term Review for the WWF-UNESCO People and Plants Programme in Kenya and Uganda.**
- 1996: Consultant for the Kenyan component of the IUCN-TRAFFIC Study on Trade in Medicinals Project in East and Southern Africa.**
- 1995: Taxonomic consultant.** Kenya Gums and Resins Production, Marketing and Conservation Project. Funded by the Mennonite Committee.
- 1992: Taxonomic Consultant.** -UNEP Kenya Country Study – Funded by UNEP.
- 1988: Taxonomic Consultant -Biological Resources and Policy Analysis Study in Kenya,** African Centre for Technology Studies and Ford Foundation.

OTHER ACHIEVEMENTS

- 2000- 2002: Project leader:** In liaison with Maseno University, developed the Community Based Conservation of Medicinal Plants Project, a national project funded by the International Development Research Centre, IDRC, Canada. The project focused on community based research and capacity building for conservation, sustainable and safe use of heavily utilised medicinal plants.
- 1999-2004: Regional Coordinator:** Coordinated the development of the GEF PDF B proposal on the Botanical and Zoological Networks for Eastern Africa. The project focuses on developing the national and regional institutional capacity to respond to the GTI Programme of Work.
- 1998- 2002: Coordinator** -Established the IUCN SSC Eastern Africa Plant Specialist Group and developed a database on experts and expertise as well bibliographic resources, with funding solicited from UNESCO.
- 1996-1999: Project Leader –NMK-Darwin Plant Conservation Techniques Course, East Africa,** – Developed and mobilized resources for an East African based course in plant conservation. Funding obtained from local and international agencies and in collaboration with the Royal Botanic Gardens, Kew, attracted core funding from the Darwin Initiative in the UK, which enabled the project to run for three years. This funding covered total participant and course costs for 45 professionals from national institutions in East Africa that are involved in plant conservation. Additional specialised workshops were held for more senior

personnel in Seed Conservation and Botanic Gardens. Partner institutions included the national institutions involved in forestry, wildlife management and plant research and conservation. Key international partners included The Darwin Initiative (UK), British Council, DFID (UK), IUCN, WWF, ICRAF, The Netherlands Embassy and AWF,

1996-1999: Integrated Species

Conservation Projects Co-ordinator, NMK Plant Conservation Programme:

Developed target priority species conservation projects based on thematic needs with core DFID support and solicited additional support to enhance the outputs of these projects. Six staff members co-ordinated with focus on orchids, African violets, medicinal plants, tree species, cycads and succulents as target groups. Additional support attracted from WCMC, IUCN-TRAFFIC, CITES-Germany, British Airways assisting conservation and the Linnaean Society, London. An ACCESS based query database for Kenyan plant species as a reference for species distributions and status developed as part of this programme. Through this projects the staff contributed to the IUCN-SSC Orchid and Succulents Action Plans, The World Cycad Congress, The WCMC Threatened Tree Species Project, The Medicinal and Aromatic Plants Conference, UK and the IOS Congress for the Study of Succulent Plants, The African Workshop on Threatened Tree Species among others. (UK – Kenya Bilateral support)

1992-1996: Conservation officer and Counterpart Project officer, DFID-NMK Plant Conservation and Propagation Unit. Facilitated the development of a plant conservation programme for the

National Museums of Kenya (NMK). Noteworthy achievements include, together with fellow staff, establishing within NMK a functional plant conservation programme, of both local and international repute. Apart from project management and monitoring activities, themes and projects with both short and long term focus were designed and developed including that of the Management Plan for the Nairobi Botanic Garden, NMK.

Professional visits were made to various local and international institutions and partnerships strengthened. Some key visits made include those to the Royal Botanic Gardens, Kew and Edinburgh, Botanic Gardens Conservation International, The Natural History Museum, London, Oxford Forestry Institute, WCMC-Cambridge, Kirstenbosch Botanic Gardens and Compton Herbarium, South Africa, The Pretoria Herbarium, Missouri Botanic Gardens, and Kenyan, Ugandan and Tanzanian Botanic Gardens, Herbaria and Forestry Research Institutes.

1987-1992: Research Scientist, Plant

Taxonomy: Curated plant collections in the herbarium including dicots, pteridophytes and algae. Main research interest was focused on the Asteraceae with a special emphasis on the large genus *Vernonia*. Undertook research using palynology, plant anatomy and scanning electron microscopy.

COMMITTEES:

- IUCN Species Survival Commission – 2009 - to date
- Advisory Committee – BioNET International – 2005- 2010
- Outreach and capacity Building sub-committee – GBIF – 2000- 2008

- The IUCN SSC Plant Conservation Committee – 1999- 2008
 - The Inter Ministerial Committee on Environment, Biodiversity Sub Committee - Kenya, 1999-2003
 - The Inter- Institutional Task Force on Medicinal and Aromatic Plants, Kenya – 2001-2003
 - The National A Rocha Committee, Kenya – 2001- to date
 - International Trustee – A Rocha International – A Christian conservation NGO 2004- 2010.
- **PROFESSIONAL QUALIFICATIONS:**
- 2011 – CERTIFICATE – EU PROPOSAL AND GRANT WRITING, MONITORING AND EVALUATION. MDF- EASTERN AND SOUTHERN AFRICA
 - 2008 – Certificate in Project Management. KPMG Training Solutions, Nairobi, Kenya.
 - 2005 – Foundation Course in Change Management, Techniques for Change Ltd, Gatwick, UK.
 - 2000—2004 Part Time - Ph.D project on the “Systematics and conservation of the genus *Saintpaulia* endemic to East Africa”. Registered at the Kenyatta University, Kenya, supported by the Centre for Tropical Biodiversity, Denmark; Department for International Development (DFID), UK and the Kenya Museum Society. (2000- final write up not completed due to inability to access materials due to ABS regulation changes).
 - Sept 99- April 2000 Recent advances in molecular taxonomy and conservation genetics – attachment, Royal Botanic Gardens, Royal Botanic Gardens, Kew, UK.
 - August 1998 – Recent Advances in Conservation Genetics - The Conservation and Research Centre, Smithsonian Institution, USA. Certificate.
- So
- May 1997 – Recent Advances in Plant Ecology – Department of Biology, Imperial College of Science, Technology and Medicine, University of London, Silwood Park. Certificate.
 - August 1996 – Molecular Systematics and Biogeography. University of Copenhagen. Denmark. Certificate
 - May-August 1995 – Advanced Training Programme on the Conservation of Biological Diversity – Consortium of the Field Museum, Chicago; Chicago Zoological Society and University of Illinois, USA. Certificate
 - March 1995 – Enhancing Skills in Project Proposal Writing Skills and Fund Raising – Kenya Management Assistance Programme, Kenya. Certificate.
 - September-November 1993 – Plant Conservation Techniques Course – Royal Botanic Gardens Kew. International Diploma.
 - October 1990 – Koobi Fora Field School in Anthropology: Harvard University, Rutgers University and the National Museums of Kenya. Certificate.
 - June, 1990 - Master of Science in Biology: Addis Ababa University, Ethiopia. Thesis entitled “A systematic study of the *Vernonia leopoldii* (Compositae) complex . GP 3.75
 - November, 1986 - Bachelor of Education (Science), Kenyatta University, Kenya. - Botany , Zoology and Mathematics. Second Class Honours, Upper Division.
- PUBLICATIONS :**
- Key publications include:
- 2000-2010 – Over forty technical reports for consultancies, project

outcomes, evaluations and information documents.

- 2003 – 2010 – All background documents for the GSPC for the CBD Meetings.
- Simiyu, S. and Harris, P. 2008. Caring for Creation – Part of our gospel calling? Grove Books Ltd. Ridley Hall Rd, Cambridge CB3 9HU.
- Simiyu, S. W. 2007. Expert Opinion: Intellectual Property Rights, the local Agenda. In Najam, E.; Halle, M and Melendez-Ortiz, R. Trade and Environment, A Resource Book. IISD. ISBN978-1-895536-99-7.
- Simiyu, S. W. 2006. The Word, Conservation and a Human Face. CRUX, a Journal of Regent College, Vancouver, Canada. Special Edition 2006.
- Simiyu, S. N.W. 1996. Plant Diversity Conservation in Kenya: The East African Herbarium Plant Conservation and Propagation Unit. Proceedings of the AETFAT Congress, Wageningen, The Netherlands.
- Simiyu, S. N.W. 1995. When not to translocate: The case of the African Violet, Tanzania. Reintroduction News, 11:13.
- Simiyu, S.N.W. 1994. The Plant Conservation Programme, National Museums of Kenya. Roots - A newsletter for African Botanic Gardens.
- Wattimah, S. N & Mesfin, T. 1992. The Systematic study of the *Vernonia leopoldii* Complex (Compositae). Nordic. J. Bot.
- Wattimah, S. N. 1992. Malphiigiaceae. In : Beentje, H.K. Kenya Trees, Shrubs and Lianas - A field Guide. Published by the National Museums of Kenya.

REFEREES.

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CURRICULUM VITAE

1. **FULL NAME:** Dr. (Mrs.) Akachuku Caroline Oluwanmi
2. **PLACE OF BIRTH:** Ola in Ejigbo Local Government Area,
Osun State, Nigeria
3. **NATIONALITY:** Nigerian
4. **MARITAL STATUS:** Married
5. **NUMBER OF CHILDREN:** four

6. PERMANENT ADDRESS

Michael Okpara University of Agriculture
Umudike No. 2, Prof. Ike Close, University Quarters,
Umudike, Abia State.

7. PRESENT POSTAL ADDRESS:

Mailing address:
Department of Forestry and Environmental Management, College of Natural
Resources and Environmental Management, Michael Okpara University of
Agriculture, Umudike, P.O. Box 2306, Umuahia, Abia State, Nigeria.
E-mail ramaclassic4life@yahoo.com, GSM Nos 08064425921,
08182826008

8. PRESENT EMPLOYMENT STATUS

Senior Lecturer on Grade Level CONUASS 5/7 from Oct 1st 2005 to date

9. EDUCATIONAL INSTITUTION ATTENDED WITH DATES
- a. PRIMARY
- Baptist Primary School, Surulere, Lagos. 1970 - 1975
- b. SECONDARY
- i. St. Marys' Grammar School, Iwo, Osun State (WASC). 1975 - 1980
- ii. Baptist Grammar School Ede, Osun State (H.S.C) 1980 - 1982
- c. TERTIARY
- University of Ibadan 1982 - 1986
 - University of Ibadan 1987 - 1991
 - Rivers State University of Science and Technology (RSUST) Port Harcourt, Nigeria 1996 - 2002
10. ACADEMIC QUALIFICATIONS WITH DATES
- 2002 Doctor of Philosophy (Ph.D) Forestry (Agro-Forestry-Options), University of Science and Technology, (UST) Rivers State, Port Harcourt, Nigeria.
- 1991 Master of Science (M.Sc) Agronomy (with Specialization in Horticulture), University of Ibadan, Ibadan, Nigeria.
- 1986 Bachelor of Science (B.Sc) Forest Resources Management, University of Ibadan, Ibadan, Nigeria.
11. PROFESSIONAL DEVELOPMENT
- 1999 Certificate in Honeybee Husbandry in Rural Development, awarded by LAL Beekeeping Nigeria and Trichitla ABC the Netherlands.

- 1997 Certificate in Advanced Computer Applications - (SAS, SPSS and Harvard Graphics Modules) organized by Michael Okpara University of Agriculture, Umudike - (formerly Federal University of Agriculture, Umudike) in Conjunction with General Data Engineering Services Limited, (GDES), Ibadan, Nigeria.

12. MEMBERSHIP OF PROFESSIONAL BODIES

- Member, Forestry Association of Nigeria (FAN)
- Member, Beekeeping Association of Nigeria (BAN)
- Member, International Society for Tropical Forestry (ISTF)
- Member, International Bee Research Association (IBRA)
- Member, Agricultural Society of Nigeria (ASN)
- Member, Nigeria Society for Biology Conservation (NSBC)
- Member, Nigeria Institute of Food Science and Technology (NIFST)
- Member, the Nigeria Field Society (NFS)
- Member, Nigeria Conservation Foundation (NCF)
- Member, Standard Organization of Nigeria (SON)

13. REVIEW OF ACADEMIC AND PROFESSIONAL JOURNALS

- a. Paper reviewed for Journal of Discovery and Innovation, Kenya
- b. Conference paper reviewed for Agricultural Society of Nigeria Conference proceedings.

14. AREAS OF SPECIALIZATION, TEACHING, RESEARCH AND COMMUNITY SERVICE:

- Forestry
- Edible - Non-Timber Forest Products (NTFPs) i.e. Forest Food Resources which abound in the tropics
- Apiculture (Beekeeping) for production of honey, Beeswax, pollen, Propolis and for Apitheraphy.
- Snail farming
- Establishment and management of Agro-forestry farms.
- Environmental conservation and management.

15. WORK EXPERIENCE AND PROMOTIONS

- | | |
|--------------|---|
| 1986 - 1987 | Carried out a study of behavioural pattern of crocodiles in captivity at University of Ibadan zoological garden during NYSC with University of Ibadan Veterinary Medicine Department. |
| 1988 - 1989 | Assisted Prof. A. E. Akachuku during field study and laboratory analyses of samples at Harvard University, Harvard Forest, Petersham, U.S.A. |
| 1994 - 1996 | Assistant Lecturer, Department of Forestry and Environmental Management, Michael Okpara University of Agriculture Umudike. |
| 1997 - 1998 | Lecturer II |
| 1998 - 2004 | Lecturer I |
| 2005 to Date | Senior Lecturer |
| 2006 - 2007 | Employed as Senior Lecturer on Sabbatical Leave of Absence by Cross River University of Technology (CRUTECH) Calabar, Cross River State, Nigeria. |

I also contributed to full accreditation of Degree program of Forestry and Wildlife Department, Faculty of Agriculture and Forestry, in this University. I started and taught new courses such as; Apiculture (Beekeeping), Introduction to Forest Food Resources e.t.c.

- a. Both home and field apiaries i.e. beehives were established around homes and on fields/out-lay farms.
- b. Forest food nurseries and plantations were also established. These further enhanced accreditation of the degree program of the university.

POSITION HELD AND RESPONSIBILITIES

- 2007 - 2008 Acting Dean, College of Natural Resource and Environmental Management, Michael Okpara University of Agriculture, Umudike.
- 2006 - 2007 Deputy Dean, College of Natural Resources and Environmental Management, Michael Okpara University of Agriculture, Umudike.
- 2005 - 2006 Co-ordinate Postgraduate Time Table and Examinations.
- 1996 - 2007 Representative of College of Natural Resources and Environmental Management on the Board of College of Food Science and Technology, Michael Okpara University of Agriculture Umudike.
- 1998 - Date Member of University Committee on Joint Programme with outside bodies.
- 2006 - Date Member of the University Task Force on Campus Environmental Wholesomeness.
- 1994 - Date Represented the Department/College/University in various bodies such as Environmental Protection Agency (EPA) in Abia State on World Food Day etc.

16) TEACHING EXPERIENCE AT UNIVERSITY LEVEL

Over sixteen years teaching experience at the University level.

- 1994 - 2004 Teach the Undergraduate courses carried out Research and Community Services. Invigilate Examinations, Supervised student projects.
- 2005 - Date Teach both the undergraduate and Postgraduate Courses, conduct research and carry out community services, plan lectures and supervise both Undergraduate and

Postgraduate Examinations and Projects in Forestry, Apiculture (Beekeeping), Agro-forestry, Forest Food Resources and Environmental Conservation and Management. I was also involved in teaching of courses in Continuing Education Centre (CEC) of the University.

UNDERGRADUATE COURSES

Teach the following undergraduate courses:

- Introduction to Forest Food Resource (FFA 221)
- Agro-forestry systems (FFA 321)
- Apiculture (Beekeeping) (FFA 311)
- General Agriculture (CAE 211)
- Harvesting and Processing of Forest Food Resources (FFA 402)
- Wildlife Nutrition and Forest Food Resources (FRW 522)
- Wildlife Management and Utilization (FRW 532)
- Forest and Wildlife extension and Education (FRW 521)
- Farm Practice in Forestry and Environmental Management at 100,200 and 300 levels (UGC 111, 121, 212, 311 and 312).
- Multiple land-use System (FRW 511)
- Forest Economics - (300 level)
- Forest Economics and Management (500 level)

POSTGRADUATE COURSES

- Forest Food Resources Management (FFA 612)
- Principles of Apiculture (FFA 711)
- Forest Food Resources (FFA 721)
- Advanced Apiculture (FEM 810)
- Advanced Forest Food Resources (FEM 815)
- Agroforestry System

17. SOME OF THE NATIONAL AND INTERNATIONAL SEMINARS, WORKSHOPS, CONFERENCES ATTENDED TO DATE ARE AS FOLLOWS:

- i. National Conference on effect of climate change on the forest ecosystem held at Harvard University Harvard forest, Petersham, Massachusetts U.S.A, April, 1989.
- ii. International Moral Re-Armament Conference on "Creators of Peace - A women's initiative and other sessions. Held at International Conference Centre for Moral Re-Armament, Caux, Switzerland. July 25th - August 19th, 1991.
- iii. Annual Business meeting (ABM) of the Nigeria Field Society. Held at Port-Harcourt, Nigeria. November 8th - 11th 1991.
- iv. Seminar on "lost crops of Nigeria: Implication for food security". Held at the University of Agriculture, Abeokuta, Nigeria 21st - 22nd May, 1992.
- v. International Moral Re-Armament Conference on "Restoring the Human Spirit in our Cities". Held at International Conference Centre for Moral Re-Armament, Caux, Switzerland, 4th - 19th August, 1995.
- vi. Nigeria Society for Biological Conservation Conference on "Biological Conservation for sustainable Agricultural production" Held at Michael Okpara University, Umudike, Umuahia, Abia State, Nigeria, November 6th - 8th, 1995.
- vii. Annual Conference of Forestry Association of Nigeria on "Environment and Resources Development". Held in Ibadan, Oyo State, Nigeria 22nd - 26th September, 1997.
- viii. National Honey Production Workshop Organized by Federal Ministry of Science and Technology and State and Local Government Affairs Office, Abuja Nigeria. Held at Michael Okpara University of Agriculture, Umudike Abia State. 24th - 28th August, 1998.
- ix. NEST Workshop on "Informal Sector and the Nigerian Environmental". Held at BINEZ Hotel Aba, Abia State, Nigeria, October 26th - 29th, 1998.

- x. Training Workshop on honeybee husbandry, honey analysis and bee product manufacturing with a seminar on hive products for health. Organized by LAL Beekeeping, Nigeria in collaboration with University of Ibadan, Ibadan and Trichilia ABC, the Netherlands. Held at Conference Centre University of Ibadan, Ibadan, Nigeria, 12th - 30th July, 1999.
- xi. National workshop on Promotion of Modern Beekeeping and honey production in Nigeria "organized by Raw Materials and research Development Council in collaboration with WINROCK INTERNATIONAL INSTITUTE FOR AGRICULTURAL DEVELOPMENT, U.S.A held at ADP training hall Rumuokoro, Port Harcourt Nigeria, 8th - 10th October, 2002.
- xii. Agricultural Society of Nigeria Conference on "Agriculture: A Basis for Poverty Eradication and Conflict Resolution. "Held at Federal University of Technology, Owerri, Imo State, Nigeria, October 20th - 24th, 2002.
- xiii. Workshop on "Farmer to Farmer Training in Modern Beekeeping in South Eastern Nigeria". Organized by Raw Materials Research and Development Council in collaboration with WINROCK INTERNATIONAL INSTITUTE FOR AGRICULTURAL DEVELOPMENT, U.S.A. Held at Michael Okpara University of Agriculture, Umudike, Abia State, Nigeria, October, 2002.
- xiv. Annual Conference of Nigeria Institution of Food Science and Technology on "Biotechnology in Food Processing". Held at Federal University of Technology Owerri, and Imo State University, Owerri, Imo State, Nigeria 4th - 8th November, 2002.
- xv. Agricultural Society of Nigeria Conference on "Agriculture Rebirth for Improved production in Nigeria". Held at the University of Benin, Edo State, Nigeria, October 9th - 13th, 2005.
- xvi. Annual Conference of Nutrition Society of Nigeria. Held at University of Uyo, Akwa-Ibom State, Nigeria, 19th - 22nd October, 2005.

- xvii. Annual conference of the Nigeria Institute of Food Science and Technology on "Reforms in the Food Industry for meeting future challenges in Africa". Held at Lagos Sheraton Hotel and Towers, Ikeja, Lagos and Administrative Staff College of Nigeria (ASCON) Conference Centre, Badagry, Nigeria, 23rd – 27th October, 2006.
- xviii. Annual Conference of the Forestry Association of Nigeria on "Climate Change and Sustainable Renewable Material Resources Management". Held in Umuahia Abia State Nigeria, 20th – 24th October, 2008.
- xix. International Conference and Roundtable on "Governance and Development in Africa". Organized by the College of Business and Social Science (CBS), Covenant University, Ota, Ogun State, Nigeria. March 11th-13th, 2009.
- xx. Symposium on Youth and Development with the theme "Planting the Seeds of tomorrow" organized by HARAMBE, NIGERIA. Held at Shell Hall Muson Centre, Onikan, Lagos, 28th August, 2009.
- xxi. National Seminar/Workshop on "Innovation and Strategies for Hedge funds and Investors" Organized by Institute of Investment Management and research. Held at excellence Hotel Ogba, Ikeja, Lagos Nigeria, 27th November, 2009.
- xxii. 7th Annual Research Conference and for II Research: An effective tool for sustainable National Development, Organized by University of Lagos 11th – 21st October, 2011.
- 18. **SUPERVISION OF POSTGRADUATE PROJECTS**
Supervised and still supervising many postgraduate students.
- COMPLETED POSTGRADUATE PROJECTS SUPERVISED**
- 1. Effect of geographical Locations on proximate Composition and Antimicrobial Activity of Pollens Harvested from Honeycombs of *Apis Mellifera adansonii*. M.Sc, thesis, 2001.
- 2. Physico-chemical, Bacteriostatic and Bactericidal Properties of some stingless honeybee species. M.Sc thesis, 2001.

3. Effect of oil spillage on some melliferous species and oil characteristics in Ikot-Abasi L.G.A of Akwa-Ibom State, Nigeria M.Sc. thesis, 2010.
4. Distribution of Heavy metals in Abandoned Industrial Site in Akwa-Ibom State and their Effects on Growth and Development of some important Forest Food Plant Species M.Sc. thesis 2010.
5. Morphological characteristics, Early Growth Performance and Chemical Composition of *Mondoara myrsica* (GAERTN) DUNAL and *Tetrapleura tetraptera* (TAUB). Threatened Indigenous Spices. M.Sc. thesis, 2009.
6. Effect of Geographical Locations and processing methods on Bactericidal and Bacteriostatic properties of *Apis Mellifera adansonii* honey. M.Sc. thesis, 2009.
7. Effect of Oil-Spillage on Soil Micro-organisms and Some Economic Crops, PGD 2005.
8. Effect of Oil exploration on Soil characteristics, water quality and melliferous plant species, in Ibeno L.G.A Akwa-Ibom State, Nigeria, PGD, 2005.
9. Survey and Ethno botanical study of some Important Forest Food Plant Species in Okwangwo Division of Cross River National Park, Nigeria, PGD thesis.

ON-GOING POSTGRADUATE PROJECTS

1. Survey and Ethno botanical studies of Important Non-Timber Forest Products of some Sacred Forests in cross River State of Nigeria, Ph. D. thesis.
2. Enhancing Eco-tourism Potentials of some Sites in Abia State through Environmental Conservation, M.Sc thesis.

19. PROFESSIONAL EFFICIENCIES

- ❖ Language Proficiency
English: Excellent
- ❖ Strong Communication skills as teacher and Lecturer.
- ❖ Excellent relationship builder with students, Colleagues and administration.
- ❖ Excellent interpersonal, writing, verbal communication and research skills.
- ❖ Teach all courses in practical oriented way using, variety of teaching aids to motivate students in active learning and skill acquisition.

20. OTHER SERVICES OFFERED

As a Resource Person

Served as a resources person for different bodies during International and National Training workshops as follows:

2009 Chairman, Technical Committee on Honey, during the survey of selected Agro-Raw materials in Nigeria to provide information for investors, Researchers, policy makers and other stakeholders. Organized by Raw materials Research and Development Council, Federal Ministry of Science and Technology, Abuja, Nigeria.

2002 Promotion of Modern Beekeeping and Honey Production in Nigeria. Organized by Raw Materials Research and Development Council, Federal Ministry of Science and Technology in Collaboration with WINROCK INTERNATIONAL ORGANIZATION, U.S.A.

2002 Farmer to Farmer Training In Modern Beekeeping in South Eastern Nigeria. Organized by Raw materials Research and Development council in collaboration with WINROCK INTERNATIONAL INSTITUTE FOR AGRICULTURAL DEVELOPMENT, U.S.A.

2002 - DATE Promotion and Practical Training in Modern Beekeeping Organized by Non-Governmental Organizations in Nigeria.

- 1997 - 2003 Also served as resource person for: Agricultural Development Programme (ADP) in Abia State, on Snail Farming: Establishment and Management.
- 1999 - 2000 Community Training, Propagation, Distribution and Utilization of Forest food species (Edible Non-Timber Forest Products) in South - Eastern Nigeria Organized by United Nations Development Programme (UNDP) Sustainable Human Development, Lagos, Nigeria.
- 1995 - Date Non-Governmental organizations in Community Training and Establishment of Threatened/Endangered Forest Species (Edible non timber Forest Products) such as bush Mango (*Irvingia gabonensis*), African breadfruit (*Treculia africana*), African oil bean (*Pentaclethra macrophylla*), Pepper Fruit (*Dennettia tripetala*); African Star apple (*Gambeya albida* - syn. *Chrosophyllum albidum*), leafy vegetable (*Gnetum africanum*), African walnut (*Plukenetia conophora* - syn. *Tetracarpidium conophorum*), *Tetrapleura tetraptera*; Alligator pepper (*Aframomum melegueta*) e.t.c.
- 2006 - Date Establishment of beekeeping farms for various Non-Governmental Organizations (NGOs) and individuals.

CONSULTANCY SERVICES

- Consultant with SAFRRED Consultancy Nigeria Limited, Enugu, Nigeria.
- Consultant on snail rearing training for European Union - Micro Projects Programme in six states of the Niger Delta (MPP6) i.e. Abia, Akwa-Ibom, Cross River, Edo, Imo and Ondo, in association with the Federal Government of Nigeria, February 2007.

ON-GOING PROJECTS

1. Suitability of some threatened/endangered edible non-timber forest products, (Forest Food Plant Species) for Agro-forestry practices.
2. Enhancing honey yield through apiary management.
3. Identification of honeybee pasture plants through Pollen - Analysis of honey as a means of determining honey adulteration in South - Eastern Nigeria. Sponsored by Raw Materials Research and Development council (RMRDC), Abuja under Federal Ministry of Science and Technology, Abuja Nigeria from 2004 to date.
4. Effect of environmental factors and feeding stuff on snail growth and development.
5. Medicinal value of some tropical snail species.
6. Enhancing snail growth and Development through feeding improvement.
7. Identification and characterization of stored and trapped honeybee pollen using pollen analysis and thin layer chromatography.
8. Enhancing growth and development of some threatened/endangered edible non-timber forest products (NTEPS).

21. RECENTLY COMPLETED RESEARCH PROJECTS

1. Melisopalynological study of some Nigerian Honey samples to determine their geographical locations and purity.
2. Effect of Environment factors on honeybee activities, comb characteristics and honey yields in *Apis mellifera adansonii*.
3. Growth and development of *Gnetum africanum* "Ukazi" (a leafy vegetable) under rubber-based Agro-forestry system.
4. Effect of environmental factors and feeding stuff on snail growth and development.
5. Fruit characteristics and performance of *Demettia tripetala* (Pepper fruit) at early stages of growth.

6. Fruit morphology, early growth performance, proximate and phytochemical analyses of "Ukpa" - (*Plukenetia conopsea* Syn. *Tetradicarpium conopseum*).
7. Effect of Oil Spillage on Growth and Development of some economic plant species in Nwayiekwu, Ukwu West Local Government Area of Abia State.
8. Morphological characteristics, nutrient composition and medicinal value of some terrestrial snail species.
9. A study on honey and beeswax yield in different hives used in modern beekeeping and burning characteristics of beeswax candle.
10. Effect of geographical location on the physico-chemical and phytochemical compositions of propolis - an important honey bee product.
11. Anti-microbial activity of propolis and the effect of its phyto-inhibitory property on some economic crops.
12. Fruit morphology, nutritional composition and early growth performance of *Irvingia gabonensis* variety *gabonensis*.
13. Morphological characteristics and nutrient composition of fruits of *Cissus striata* - A tropical vine.
14. Effect of pre-sowing treatment on *Dalium guineenses*.
15. Growth performance of *Thaumatococcus daniellii* under Agro-forestry system.
16. Effect of harvesting intensity on growth and development of *Thaumatococcus daniellii*.
17. Physico-chemical composition of *Thaumatococcus daniellii* fruits - an important sweetener.
18. Nutritional and medical values of *Gongronema latifolia* and *Piper guineensis* - a threatened forest food vegetable species.
19. Morphological characteristics, Physico - Chemical and phytochemical composition of *Pentaclethra macrophylla*.

CURRICULUM VITAE

DR. (MRS) CAROLINE AKACHUKU

A. JOURNALS

(a) Published/Accepted Papers:

1. **Akachuku C.O. and Fawusi M.O.A (1994):** Growth Characteristics, yield and nutritive value of waterleaf, *Talinum triangulare* (Jacq) wild in a semi-wild Environment. *Discov. Innov.* 7(2): 163-172
2. **Akachuku C.O (2001):** Growth of Bitterleaf (*Vernonia amygdalina*) and nutritive values of its processed and unprocessed leaves. *Discov. Innov.* 13(3 & 4) 227-232
3. **Akachuku C.O. (2002):** Plant species of some wetlands in Nigeria visited by honeybees for nectar and pollen collection. *Journal of Development Studies*, 4(2): 68-80
4. **Akachuku C.O, (2004):** Assessment of the above –ground biomass and physico-chemical composition of an endangered indigenous leafy-vegetable (*Gnetum africanum* Welw. *Gnetaceae*), grown under rubber plantation in South-Eastern Nigeria. *African Journal of Development Studies*, Addis-Ababa and Development African consortium, Port Harcourt Nigeria Vol 4, Numbers (1 & 2) 76-79
5. **Akachuku C.O. (2005):** Fruit Characteristics and performance of African star Apple (*Gambeya albida* syn. *Chrysophyllum albidum*) at early stages of its growth. *Journal of Agriculture, Agricultural Technology and Environment*. A publication of the Faculty of Agriculture, University of Calabar Vol. 1 No. 1. Jan-June (2005) 97-104.

6. **Akachuku C.O. (2005):** Honey quality as affected by methods of harvesting and processing in Southern Nigeria. *Journal of Agriculture and Agricultural Technology and Environment*. A publication of the Faculty of Agriculture, University of Calabar, Calabar Vol. 1 January – June (2005) 73-82
7. **Akachuku C.O. (2006):** Autecology, propagation and utilization of two endangered wrapping-leaf species (*Thaumatococcus daniellii* and *Hallea ciliata*) used in food processing and preservation in Southern Nigeria. *International Journal of Natural and Applied Sciences (IJNAAS)* Vol. 2 No. 2 (2007) 50-56.
8. **Akachuku C.O. (2006):** Assessment of housing architecture, Colony Content and physiochemical properties of honey in *Hypotrigena* species- A Stingless honeybee species. *Production Agriculture and Technology (PAT)*. An International Journal of Agricultural Production. A Publication of the Faculty of Agriculture Nasarawa State University, Kebbi 1(1):161-169
9. **Akachuku C.O. (2008):** Sustainable Production of snail through home garden Agroforestry practice in South Eastern Nigeria *Journal of Tropical Forest Resources* Vol. (24) 1, 2008, 77- 84.
10. **Akachuku C.O. and Onyenso A.I. (2008):** Bacteriostatic and Bacteriocidal properties of honey produced by two stingless honeybee species *Trigona Carbonaria* and *Melipona beechellii* in Southeastern Nigeria. *Journal of Tropical Forest Resources* Vol. (24) 1, 2008 42-48.
11. **Akachuku C.O. and Onyenso, A.I. (2009):** Honey yield in different hives used in modern beekeeping in the rainforest area of Nigeria. *Journal of Tropical Forest Resources* Vol. (25) 1, 2009, 17-24.

12. **Akachuku C.O. (2010)** Comparative Study on Nutritional Composition of Matured green and Red Fruits of *Dennettia tripetala*- a threatened indigenous forest fruit species. Journal of Agriculture, Forestry and the Social Sciences (JOAFSS) Vol. (8) No, 2010, 174-177.

13. **Onyenso A.I and Akachuku C.O. (2011):** Physical - chemical properties of honeys produced by two stingless honeybee species. Journal of Agriculture, Forestry and Social Science (JOAFSS) Vol. 9 No 1, 2011, 158-167.

14. **Akachuku C.O. and Tombere V.P (2010):** Heavy Metal Accumulation in *Talinum Triangulare* Grown in Polluted Area. Paper sent for publication in a Journal 7pp.

15. **Akachuku C.O. and Tombere V.P (2011):** Growth and Development of *Treculia africana* as affected by Industrial Pollution. Paper sent for publication in a Journal 7pp.

16. **Akachuku C.O. and Tombere V.P (2011):** Early Growth Performance of *Pentaclethra macrophylla* as affected by-by-product from Battery factory. Paper sent for publication in a journal 7pp.

17. **Tombere V.P and Akachuku C.O. (2011):** Physico-Chemical Composition of soil within Abandoned Battery Factory site and effect on growth of *Talinum triangulare*. Paper sent for publication in a

B. CONFERENCE/WORKSHOP/SEMINAR PROCEEDINGS

18. **Akachuku C.O. (1996):** A Study of beekeeping methods in Nigeria and their effects on conservation of West African honeybee. In: Biological Conservation for Sustainable Agricultural Production. Proceedings of the 5th Annual Conference of the Nigeria Society for Biological Conservation held in Federal University of Agriculture, Umudike now Michael Okpara University of Agriculture, Umudike 1996, pp. 32-35.
19. **Akachuku C.O. (1997):** Status of Forest Food Plant Species and Environmental Management in South-Eastern Nigeria. In: Environment and Resources Development (Eds. E.A. Oduwaiye, P.C. Obiaga and J.E. Abu). Proceedings of the 25th Annual Conference of Forestry Association of Nigeria (FAN) pp. 21-29.
20. **Akachuku C.O. (2001):** Honey Characteristics, Uses and factors affecting its curative and nutritional qualities. In: forestry and National Development (Eds. L. Popoola, J.E Abu and P.I Oni). Proceedings of the 27th Annual Conference of Forestry Associations of Nigeria (FAN) pp. 299-307.
21. **Akachuku C.O (2001):** Production and Utilization of the wine palm (*Raphia hookeri* and wendland). An important wetland species occasionally visited by honeybees. In: Sustainable utilization of Aquatic Resources and Environmental Management. Proceedings of the Nigeria Association for Aquatic Sciences pp. 282-297.
22. **Okeke A.I. and Akachuku C.O (2001):** Some Viable technologies for improved yield in homegardens in South –Eastern Nigeria. In: Forestry and National Development (Eds: L popoola, J.E. Abu and P.Oni. Proccedings of the 27th Annual Conference of the Forestry Association of Nigeria (FAN) pp. 308-318.

23. **Akachuku C.O (2002):** Growth characteristics and local processing of African breadfruit (*Treculia africana*) in South-Eastern Nigeria. In: Biotechnology in Food Proceedings. Proceedings of the 26th Annual Conference of Nigeria Institute of Food Science and Technology, held at Owerri, Imo State, Nigeria pp. 33-34.
24. **Akachuku C.O (2006):** Conserving the Natural Forest Biodiversity in the Niger Delta through modern Beekeeping for Economic Development. In: Forestry at Cross Roads. Proceedings of the 31st Annual Conference of the Forestry Association of Nigeria held in Markurdi, Benue State, Nigeria (L. Popoola Ed.) Forestry Association of Nigeria 20th -25th Nov. pp 2-7.

B. CHAPTERS IN BOOKS (WITH ACCEPTANCE LETTER)

25. **Akachuku C.O. (2008):** Beekeeping: Management and problems in the moist forest zone of Nigeria. Paper accepted for publication as a chapter in a book titled "FORESTRY AND WILDLIFE CONSERVATION PRACTICES IN THE TROPICAL MOIST FORESTS OF NIGERIA" 33pp.
26. **Akachuku C.O. (2008):** Prospects of Snail farming in Tropical Rainforests area of Nigeria. Paper accepted for publication as a chapter in a book titled "FORESTRY AND WILDLIFE CONSERVATION PRACTICES IN THE TROPICAL MOIST FORESTS OF NIGERIA" 34pp.

EXTRA CURRICULA ACTIVITIES

- a. Within the University: reading, Writing, and gardening
- b. Outside the University: Traveling, listening to music, volleyball

NAME OF ADDRESSES OF FOUR REFEREES

1. PROF LA. AYODELE

HOD

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E-mail: drcomekara@yahoo.com

CURRICULUM VITAE



1. Personal Data

Full Name: Akosim, Callistus
 Sex: Male
 Date of Birth: 14th August, 1956
 Place of Birth: Kaduna
 Nationality: Nigerian
 Postal Address: Department of Forestry and Wildlife Management, Modibbo
 Adama University of Technology, P.M.B 2076, Yola.
 Adamawa State, Nigeria.
 Permanent Address: Ezieke-Akpukpa, Uturu-Isukwuato,
 Abia State, Nigeria.

2. Educational Institutions and Qualifications

Primary School Education: 1960-1970 First School Leaving Certificate
 Secondary School Education: 1972 W.A.S.C
 University of Calabar: 1978-1982, B.Sc. (Hons) Biology (Ecology)
 University of Ibadan: 1984-1985 M. Sc. Wildlife Management.
 University of Ibadan: Ph.D Wildlife Management with Specialization
 in Biodiversity Conservation

3. Academic/Professional Objectives

Research, Teaching and General Scientific Work Related to:

- a) Ecology and
- b) Biodiversity Conservation

4. Work Experience

- a) Worked as a Secondary School Tutor under Cross River and Akwa Ibom States School Board from 1983 — 1989.
- b) Lecturer, University of Uyo from 1989— 1991
- c) Lecturer, Modibbo Adama University of Technology, Yola from 1991 to date

5. Supervision of Postgraduate Student's Research Work

- i. M.TECH Dissertations — 20 completed, 7 are ongoing
- ii. Ph.D Thesis - 2 completed — 9 on-going

Current Status/Rank: Professor, October, 2003 to date

6. Community Service

- a) Contributed to the Development of Forestry and Tourism Resources of Adamawa State through a paper presented at the Adamawa State Agricultural Council meeting 1995.
- b) Contributed to the development and production of an environmental Action Plan for Adamawa State — 1997.
- c) Participated in a Workshop that reviewed the draft Management Plan for Gashaka Gumti National park, Adamawa/Taraba States, Nigeria — 1998.
- d) Currently participating in a primate project in Gashaka Gumti National Park.

7. Membership of University Committees

- a) Member University Examinations and Results Screening Committee 1992 — 1994.
- b) Member Undergraduate Curriculum Review Committee in the Department of Forestry and Wildlife Management 1997/1 998 session.
- c) Member Postgraduate Curriculum Development Committee, Department of Forestry and Wildlife Management 1997/1998
- e) Member of all University Management Committees as the Dean of Student 1999—2004.

8. Administrative Positions Held

- a) Examination Officer-School of Agricultural Technology, Modibbo Adama University of Technology, Yola. 1992 — 1994
- b) Time Table Officer: School of Agric and Agricultural Technology, Modibbo Adama University of Technology, Yola. 1992-1994.
- c) Coordinator of Postgraduate programmes in the Department of Forestry and Wildlife Management 1997 — 2002.
- d) Sub-Dean, School of Agriculture and Agricultural technology, 1997-2000
- e) Head of Department of Forestry and Wildlife Management 1998-1999.
- 1) Ag. Dean of Student Affairs 1999-2004
- g) Presently; The University SIWES COORDINATOR

9. Membership of Professional Bodies

- a) Member of the Nigeria Society for Animal Production
- b) Member of the Nigerian Society of Biological Conservation

10. Publications

A. Journal Papers

- (i) Marks, M. K. and Akosim, C., (1984). Achene dimorphism and germination in three composite weeds. *Journal of Tropical Agriculture (Trinidad)* Vol. 61(1): 69-73.
- (ii) Alo, B. B.; Akosim, C. and E. I. Arifalo (1994). Observations on the effects of Land-use practices on water resources in upper Benue Basin of Nigeria, *Journal of Environmental Conservation* Vol. 21:70-72.
- (iii) Akosim, C. and Alo, E. B. (1995). An evaluation of Wildlife Conservation concepts among high school graduates in Adamawa State. *Journal of Technology and Development* Vol. 5(1): 153-56.
- (iv) Alo, E. B. and Akosim, C. (1995). Extension Services in Wildlife Conservation: The extension agent and information worker. *Journal of Environmental Conversion*. Vol. 22(3): 2 67-269.
- (v) Ijomah, J. U. and Akosim, C. (1996). An analysis of Senegal Kob habitat in Kainji lake National Park. *Transactions of Nigeria Society for Biological Conservation*. Vol. 4(1): 68-79.
- (vi) Akosim, C., Yahaya, S. M. and Maisamari, B. (1999). Feasibility of game ranching for meat production in Nigeria. *International Journal for Nature Conservation in Africa*. Vol., 15 (2):2-12.
- (vii) Arifalo, E. I., Akosim, C. and Gawaissa, S. G. (1999). Effectiveness of the social activities of Gashaka Gumti National Park: The residence viewpoint, *Journal of Applied Science and Management*. Vol. 2:125-128.
- (viii) Akosim, C. (1999). Abundance and distribution of wildlife species in pandam Wildlife Park, plateau state. *Nigeria Journal of Tropical Agriculture* Vol. 1:70-75.
- (ix) Akosim, C. (2000). An Assessment of Soil Characteristics for Biodiversity Conservation in Pandam Wildlife Park, Plateau State, Nigeria. *Nigeria Journal of Tropical of Agriculture*, Vol. 2:222-233.
- (x) Yahaya, M. S., Akosim, C., Nyako, H. Ardo, M. B., Umaru, E. Takashi, J. Matsuoka, S. (2001). The performance of weaned rabbits fed with maize offal and *Tridax procumbens* in north eastern Nigeria. *Malaysian Journal of Animal Science* Vol. 7(1): 25:28
- (xi) Akosim, C., Mbaya, P. and Nyako, H. D. (2001). Evaluation of Range Conditions and Stocking rate of Jibro Grazing Reserve, Adamawa State, Nigeria. *Journal of Arid Agriculture*. Vol. 14:35-39.

- (xxiii) Akosim, C., Gawaisa, S., Yaduma, Z and Mamman, G. S. (2006). Population Dynamics of Mammals in the Savannah Zones and Management Programme in Gashaki Gumti National Park, Nigeria. *Journal of Science, Engineering and Technology*. Vol. 14(3): 7658-7675.
- (xxiv) Akosim, C., Yaduma, Z., Gawaisa, S., Mamman, G. S. (2006). Evaluation of the Relative Importance of Five Principal Forest Reserves for Biodiversity Conservation in Adamawa State, Nigeria. *World Journal of Biotechnology*. Vol. 8(1): 1201-1217.
- (xxv) Akosim, C. Buba, U. N. (2007). The Influence of Environmental Factors and Food Trees on the Nesting Behaviour of Chimpanzees (*Pan troglodytes vellerosus*) in Gashaka Gumti National Park, Nigeria. *African Journal of Science* Vol. 8(2): 1892-1906.
- (xxvi) Akosim, C., Kwaga, B. T; Ali, A. and Mamman, G. S. (1. S. (2007). Flora resources and structure in Pandam Wildlife Park, Pandam, Plateau State, Nigeria. *Agricultural Journal*. Vol. 2(6): 740-747.
- (xxvii) Akosim, C., Kwaga, B. T; Umar, B and Mamman, G. S. (2008). The role of aquatic bodies in avifauna and fish conversation in Pandam Wildlife Park, Pandam, Plateau State, Nigeria. *Journal of Fisheries International*. Vol. 3(1): 7-11.
- (xxviii) Akosim, C; Isa, M; Ali, A. and Kwaga, B. T. (2008). Species Absolute Population Density of water birds in wetland areas of Yankari National park, Bauchi State, Nigeria. *Environmental Research Journal*. Vol. 2(1): 28-32.
- (xxix) Akosim, C., Shitta, E. A; Kwaga, B. T; Inah, E. I. (2007). Avifamma Diversity and Status of some Wetlands in Adamawa State, Nigeria. *ASSET*. Vol. 6(1): 89-107.
- (xxx) Akosim, C., Kwaga, B. T., Amadi, D. C. A; Inah, E. I. (2007) Ecological Potentials of Beekeeping in Adamawa State, Nigeria. *ASSET* Vol. 6(1): 67-76.
- (xxxi) Awi, M.; Akosim, C. and Arifalo, E. I. (2007) Economic Analysis of Crop Yield Losses due to Elephants' Movement in Hong Local Government Area of Adamawa State, Nigeria. *Journal of Sustainable Development in Agriculture and Environment*. . Volume 3(2): 39 – 46.
- (xxxii) Umar, T. A; Dishan, E. E. Akosim, C and Jatau, D. F. (2008). Analysis of the Vegetation in Lowland Areas of Bagale Forest Reserve, Adamawa State, Nigeria. *Nigerian Journal Tropical of Agriculture*. Volume 9: 61-71
- (xxxiii) Ali, A; Akosim. C; Ijeomah, J. U (2008). Flora Densities and Diversity in Hadejia-Nguru Wetland sites, Nigeria. *Nigerian Journal of Tropical Agriculture*. Volume 10:133-143.

- (xxxiv) Akosim, C. Bode, A.S, Kwaga, B.T. Dishan E.E (2010). Perception and Involvement of neighbouring communities of Kainji lake National park towards the parks conservation programmes. *Journal of Research in Forestry, Wildlife and Environment*. Vol. 2, No. 1 Pp. 44-53.
- (xxxv) Dishan E.E, Agishi R. Akosim, C. (2010). Women's Involvement in Non-Timber Forest products Utilization in Support Zones of Gashaka-Gumti National Park. *Journal of Research in Forestry, Wildlife and Environment*. Vol. 2, No. 1 Pp. 73-84.
- (xxxvi) Akosim, C.; Joseph, J. and Egwumah, P. O. (2010). Assessment of Feeding Behaviour of Baboons (*Papio anubis*) in Hong Hills, Adamawa State, Nigeria. *Journal of Research in Forestry, Wildlife and Environment*. Vol. 2, No. 1. Pp. 60-72.
- (xxxvii) Akosim, C.; Buba, U. and Egwumah, P. O. (2010). An Investigation of the Behaviour of Pregnant and Lactating Baboons (*Papio Anubis*) in Gashaka Gumti National Park, Nigeria. *Journal of Research in Forestry, Wildlife and Environment*. Vol. 2, No. 1, Pp. 7-31
- (xxxviii) Ihuma, J. O; Chapman, H; Tella, O. I; Akosim, C; Stephen, G. (2011). Guild of Frugivores on three fruit-Producing Tree Species [*Polyscias fulva*, *Syzygium guineensis* and *Pouteria altissima*]. In Ngel Nyaki Forest Reserve, a Montane Forest Ecosystem in Nigeria. *Journal of Research in Forestry, Wildlife and Environment*. Vol. 3. No. 2:1-11.
- (xxxix) Irokanulo, U. O; Halidu, K. S.; Adeola, A. J.; Akawu, M. R; and Akosim, C. (2011). Ecotourism in Nigeria: Developmental Strategies and Contributions to National Development. *International Journal of Development Studies*. Vol. 6, No. 3:20-24.
- (xxxx) E. I. Inah; O. F. Smith; J. Ityavyar; I. O. D. Osunsina; and C. Akosim (2012). Assessment of Captive Management of Nile Crocodile, *Crocodylus niloticus* in Three Towns of Benue State, Nigeria. *Journal of Agriculture, Biotechnology and Ecology*. Vol. 5, No. 1:104-116.

B. Papers in Proceedings

- (i) Alo, E. B; Akosim, C. and Arifalo, I. E. (1997). An appraisal of the environmental and Socio-economic values of Ex-Situ and In-Situ wildlife conservation programmes in Nigeria. In Proceedings of the Annual Conference of Forestry Association of Nigeria.
- (ii) Ijomah, J. U. and Akosim, C. (1997). Conservation strategies for Nigeria's Rain forest and fauna. In: Proceedings of the National Conference on Science, Technology and Socio-Economic Development, held in Modibbo Adama University of Technology, Yola 1994.

- (iii) Akosim, C. and Nyako, D. H (2000). Strategies for Increase on Beef Cattle Production under the Extensive system of rearing. In: proceedings of the National Conference on Revitalization of Agriculture in Nigeria, held in Modibbo Adama University of Technology, Yola. 2000: 229-233.

C. Chapters in Research Books

- (i) Akosim, C., Tella, I. O. and D. F. Jatau (1999). Vegetation and Forest Resources of Adamawa State. In: Adamawa State in Maps. Edited by A. A. Adebayo and A. L. Tukur: Paraclete Publishers, Yola-Nigeria, 32-35.
- (ii) Akosim, C. and Mamman, G. S. (2000). Ethnozology and Sustainable development of Wildlife Resources in Adamawa State. A contribution to a text titled: agriculture in Adamawa State. 204-211.
- (iii) Ijomah, J. U. and Akosim, C. (2000) Desertification: causes and control in Adamawa State. A contribution to a text titled: Agriculture in Adamawa State: 241-246.
- (iv) Andrew, F; Pascual-Garrido, A; Buba, U; Franquilli; Akosim, C; Schoning, C and Sommer, V (2009). Panthropology of the fourth Chimpanzee; A contribution to cultural primatology: In Primates of Gashaka. Socio-ecology and Conservation in Nigeria's biodiversity hotspot: 381 – 415.

D. Text in Main Discipline

- (i) Ijomah, J. U., and Akosim, C. (2000). Elements of Biological Conservation 1st Edition. Trinity Graphics System LTD Jos: 1-30.
- (ii) Akosim, C and Irokanulo, U. O. (2008). Applied Zoo Management. Paraclete Publishers, Yola-Nigeria, 32-35.

E. References

- (a) Prof I. Ayodele
Department of Wildlife and Fisheries
University of Ibadan, Ibadan.
- (b) Prof K. Nwogu
Department of Information and Communication Technology,
Modibbo Adama University of Technology, Yola.
Adamawa State.
- (c) Prof E. B. Alo
Department of Biological Sciences
Modibbo Adama University of Technology, Yola.
Adamawa State.

CURRICULUM VITAE

1. **NAME:** **IBUKUNOLUWA AUGUSTINE, AYODELE (PROF.)**
DATE OF BIRTH: 10TH AUGUST, 1958
DEPARTMENT: **WILDLIFE AND FISHERIES MANAGEMENT**
FACULTY: **AGRICULTURE AND FORESTRY**
2. **UNIVERSITY EDUCATION (WITH DATES)**
 - a) University of Ibadan 1979 – 1983
 - b) University of Ibadan 1984 – 1985
 - c) University of Ibadan 1985 – 1988
3. **ACADEMIC QUALIFICATION (WITH DATES AND GRANTING BODIES)**
 - a) B.Sc. Fisheries Management (1983), University of Ibadan
 - b) M. Sc. Wildlife Management (1985), University of Ibadan
 - c) Ph. D. Wildlife Management (1988), University of Ibadan.
4. **HONOURS, DISTINCTIONS AND MEMBERSHIP OF LEARNED SOCIETIES**

W.A.S.C. (O' Level) Western State Scholarship

Undergraduate: Ondo State Scholarship

Postgraduate: Federal Government Scholarship

British Council Award

Member of Environment and Behaviour Association of Nigeria

Member of Ecotourism Society of Nigeria

Member of Fisheries Society of Nigeria

Member of Zoological Society of London

Member of Royal Zoological Society of Scotland

Member of the Institute of Biology, London

Fellow of Forests and Forest Products society

Member of Wildlife and Zoo Management Association of Nigeria

Member of Forestry Association of Nigeria

Member of Ecological Society of Nigeria

Member of Science Association of Nigeria.

5. POSITION AT UNIVERSITY LEVEL

- a) Professor - Wildlife Utilization and Biodiversity Management, University of Ibadan, Ibadan, Oyo State (1999 to date)
- b) Senior Lecturer - Wildlife Management, University of Ibadan (1994-1999)
- c) Sub-Dean, Faculty of Agriculture and Forestry (1993-1997)
- d) Acting Head, Wildlife & Fisheries (1997-1999)
- e) Time-Table and General Studies Co-ordinator
- f) Task force member, University of Ibadan Zoo (1989 to date)
- g) Member, Management Board, University of Ibadan Zoo (1986 to date)
- h) Postgraduate Co-ordinator, Department of Wildlife and Fisheries Management, University of Ibadan (1985-1992)
- i) Head, Wildlife and Fisheries Management (2000-2003)
- j) Member, Internal Revenue Board, University of Ibadan (1997-1999)
- k) Member, Senate, University of Ibadan (1997 to date)
- l) Hall Warden, (1998-1999)
- m) Member, Senior Staff Disciplinary Committee (1999 to date)
- n) Member, Faculty of Agriculture & Forestry Curriculum Review Committee (2003 to date)
- o) Hall master kuti hall, University of Ibadan (2009 to date)

- p) Pioneer Head, Department of Wildlife and Ecotourism Management, University of Ibadan, Ibadan (2011-Till Date)
- q) Chairman, Awba Dam Tourism Development Committee, University of Ibadan, Ibadan (2012-Till Date)
- r) Member, Water Supply and Production Committee, University of Ibadan (2012 –Till Date)

6 CONSULTANCY EXPERIENCE:

I have participated in the following projects:

- 1. Management plan of Old Oyo National Park
- 2. Kwara State of Nigeria Zoological Garden
- 3. National Zoological Garden, Abuja, Nigeria
- 4. Review of Kainji Lake National Park Management Plan
- 5. Action Plan Natural Resources Conservation Council of Nigeria
- 6. Agricultural Development Project, Kwara, Oyo, Ogun, Ondo and Osun State.
- 7. Moderator, Federal Colleges of Education, Agric, Courses, Oyo, Okenne, Port – Harcourt and Abeokuta, 1990 to date
- 8. Parrot population assessment in Korup National Park, Cameroon (W. W. F. Project)
- 9. Fauna Resources Assessment in “W” National Park, Niger Republic (I. U. C. N. Project)
- 10. Control of Wildlife Pest at International Institute of Tropical Agriculture (IITA).
- 11. Breeding of snails – (UNICEF)
- 12. Domestication of Wild Animals (Kob) at Kainji Lake Research Institute, New Bussa, Niger State
- 13. Domestication of Giant Rat and Grass-Cutter at University of Ibadan

14. Domestication of Wild Ungulates at International Livestock Centre for Africa (ILCA) now (ILRI)

15. External Examiner, 1995 – date:

- i. Federal University of Technology, Akure
- ii. Federal University of Technology, Minna
- iii. University of Agriculture, Makurdi
- iv. University of Benin, Benin City
- v. University of Agriculture, Abeokuta
- vi. University Du Benin in Benin Republic
- vii. Federal University of Technology, Yola
- viii. Inishan Remo Bab Cock University.
- ix. Redeemer University, Lagos
- x. Tai Solarin University of Education, Ogun State

16. Control of Rodents for West Africa Rice Development Authority (WARDA)

17. Consultant to WWF, F. A. O, NCF, UNNDP, W. T. O., UNICEF

18. National Board for Technical Education (NBTE) – Team Leader for Tourism accreditation in Nigeria.

19. Visiting Professor to Delta State University, Abraka, Delta state.

20. Visiting Professor to Adekunle Ajasin University, Akungba – Akoko, Ondo state.

21. Member, National University Commission panel that prepared a minimum Academic Standard for Post Graduate Program for Nigerian Universities.

22. Member, National University Commission panel that audited programmes in Nigerian Universities.

23. External examiner and assessor to many universities e.g USA, UK, South Africa, Ghana, Malaysia, India, China, Germany, Sierra Leone, Cameroon, Benin Republic and others.
24. External examiner, National Open University of Nigeria
25. Member, Accreditation Team, National University Commission
26. Member, Resource Verification Team, National Open University of Nigeria
27. Member, Resource Verification Team of some Universities in Nigeria conducted by the National University Commission
28. Member of Accreditation Team of some Universities within and outside Nigeria

I have supervised, co-supervised, and graduated, 10 M.Phil, 55 Ph.D Students several M.Sc and B.Sc Students.

7. PUBLICATIONS

1. Ayodele, I. A. (1990): Introduction to Fisheries and Wildlife Management. In: *Introduction to Agriculture. External Studies Programme series, University of Ibadan (Eds.) B. O. Fagbemi and J. E. Olawoye* Chapter 10: 55 – 62.
2. Ayodele, I. A. and Falade, G. O. (1990): Some Aspects of Tourism Potentials of Nigerian Parks In: *Environment and Tourism in Nigeria. Published by Environment and Behaviour Association of Nigeria. Edited by B. A. Chokor* Chapter 18: 211 – 218.
3. Falade, G. O and Ayodele, I. A. (1990): Suggested Tourism Policy, management and development in Nigeria. In: *Environment and Tourism in Nigeria. Published by Environment and Behaviour Association of Nigeria. Ed. B. A chokor* chapter 20: 307 -312.
4. Ayodele, I. A. (1993): Principles of Wildlife and Fisheries Management. In: *Fundamentals of Agriculture* published by Faculties

- of Agriculture, Forestry and Veterinary Medicine, University of Ibadan. (Eds.) E. A. Aiyelari, B. O. Abatan, E.O. Lucas and O. A. Akinboade. Chapter 11: 88 – 109
5. Ayodele, I. A. and Ajani, E. K. (1998): Essentials of fish farming (Aquaculture) published by Odua Co. Ltd. Ibadan. 86pp.
 6. Ayodele, I. A., Ebin, C. O. and Alarape, A. A. (1999): Essentials of Wildlife Management. *Jachin Publishers Ibadan* 122pp.
 7. Ayodele, I. A. and Onyekuru, K. E. (1999): Essentials of Bee keeping. Bookman Agriculture Series. *Sam Bookman Publishers Ibadan, Ibadan* 82pp.
 8. Ayodele, I. A. and Asimalowo, A. A. (1999): Essentials of Snail farming. *Agape Publishers Ibadan*. 113pp
 9. Ayodele, I. A., Abe, A. J. and Olaniyan, A. O. (1999): Essentials of Zoo Management *Jachin Publisher, Ibadan* 102pp
 10. Ayodele, I. A. and Lameed, G. A. (1999): Essentials of Biodiversity Management. *Powerhouse Publishers* 131pp
 11. Ayodele, I. A (1989): Some Aspects of Tourists Potentials of River Ogun Shoreline of Old Oyo National Park. In: E. O. Faturoti (Ed.) *Proceedings: 4th Annual Conference of Nigerian Association for Aquatic Science, Ibadan* 12-14 June, 1989 164 – 171.
 12. Ayodele, I. A (1989): Impact of Socio-economic activities on Wildlife Resources In: Okaeme A. N. (Ed.) *Proceedings: Biennial Conference of Ecological Society of Nigeria Ibadan, 14th -16th August, 1989*: 246 - 255.
 13. Ayodele, I. A and Falade, G. O. (1990): Wildlife and Tourism Development in Nigeria. *Journal of Tropical Forest Resources* Vol. 5: 1-8.
 14. Ayodele, I. A and Fadare, A. (1990): Wildlife and Problems of their Conservation in a derived Savanna area of Nigeria. In: Dada, G.

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55. Ayodele, I. A and Onyekuru, J. E. (1999): Biodiversity Conservation and Utilization in Agriculture. *African Journal of Apiculture* Vol. 2, No 1 pages 1-4.
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- (ILCA) now International Livestock Research Institute (ILRI), located at International Institute of Tropical Agriculture I. I. T. A. Ibadan.
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108. Adewunmi, A.A., Ayodele, I.A. and Alabi O.M. (2009). Intra-erythrocytic trace element profile of Emu *Dromaius novaehollandiae* (Le Souef 1907). *Annual Conference of Animal Science Association of Nigeria [ASAN] 2009*. 255-257.
109. Kayode, I.B. and Ayodele, I.A. (2012). Assessment of the Strength of Tourism of Ekiti State, Nigeria. *Obeche Journal* 30(1): 381-388, 2012; ISSN 0078-2912.

110. Ajani, E.K., Akinwale, A.O., and Ayodele, I.A. (2011). Fundamentals of Fish Farming in Nigeria. Published and Printed in Nigeria by Walecrown Ventures, Ibadan. ISBN 978 – 245 – 543 – 1, pp 158.
111. Ayodele I. A. and Omonona A. O. Principles of Zoo Management in Nigeria, Ibadan University Press. ISBN 978-978-8414-66-7 pg 147.
112. Ipinmorotin, M. O.; Falaye, A.; and Ayodele I. A.. Preferences of Potential Anglers of Man – Made Lakes in Southwestern Nigeria.
113. Shotuyo and Ayodele, 2012, Angiosperm Biodiversity of a Nascent Nature Reserve, International Journal of Molecular Ecology and Conservation, Vol. 2, No. 2.
114. A. I. A. Shotuyo, O. A. Akintunde and Ayodele I. A. Area Activity of the Grasscutter (*Thryonomis swinderianus*) Determined Through Droppings in the Wild. Journal of Agriculture. Biotechnology & Ecology, 5(2), 131-141, 2012. ISSN: 2006-3938.

CURRICULUM VITAE

1. Family name: Donli
2. First names: Patricia Ori
3. Position: Professor
4. Date of birth: 19th March 1955
5. Nationality: Nigerian
6. Civil status: Married
7. Address: Department of Biological Sciences, University of Maiduguri
8. Email: podonli@yahoo.co.uk
9. Telephones: 08074549359; 08023825698

10. Education:

Institution [Date from - Date to]	Degree(s) or Diploma(s) obtained:
Ahmadu Bello University, Zaria, Nigeria (1974-1977)	B.Sc Botany;
Ahmadu Bello University, Zaria, Nigeria (1980-1983)	M.Sc Crop Protection
University of Newcastle upon Tyne, England, (1986 - 1990)	Ph.D Plant Pathology
University of Maiduguri, Nigeria/ Silsoe College (England) Study Linkage (November - December 1993)	Certificate course in Microcomputer Applications in Environmental Sciences
British Council Linkage between University of Maiduguri and Centre for Arid Zone Studies, University of Bangor, Wales	Study on Women and Participation in Development Projects
National Centre for Economic Management and Administration, Ibadan, Nigeria (July 2000)	Certificate course in Research Methods, Survey Methodology and Data Management
Summit Institute for Sustainable Development, Johannesburg, South Africa (September, 2002)	Certificate of Participation in Effective Leadership for Sustainable Development
Mediation Training Institute, Abuja, Nigeria	Certificate on Mediation and Alternative Dispute Resolution Skills
Management Strategies for Africa, Nigeria, 2007	Certificate on Project Monitoring and Evaluation
Management Strategies for Africa, Nigeria, 2008	Certificate on NGO Management

11. Membership of professional bodies:

1. Nigerian Society for Plant Protection
2. Entomological Society of Nigeria
3. Botanical Society of Nigeria
4. Association of Nigerian Professors

5. Nigeria Association of University Women
6. National Association of Women Academics
7. Editor-in-Chief, Nigerian Journal of Experimental and Applied Biology (NJEAB)
8. Editor, Research Journal of Science
9. Member of Editorial Board of Journal of Women Studies
10. Member, University of Maiduguri Biotechnology Centre
11. Member, Advisory Committee, Centre for Peace and Development, University of Maiduguri, Nigeria

Membership of Boards

1. Board of Trustees, Actionaid Nigeria
2. Board of Directors, West Africa Peacebuilding Network (WANEP)

12. Areas of Interest:

- Agriculture and food Security
- Gender, Environmental Protection and climate change
- Biotechnology and application in plant production and disease control
- Gender, Women and Development

13. Skills

Computer Skills: high proficiency in Excel, Power Point, MS Word.

Other Skills: Research and Documentation, Advocacy & Lobbying skills, Facilitation Skills, Resource Mobilization Skills, Gender Mainstreaming, Conflict Management Skills, Strategic Planning Skills, Training Techniques, Good Communication Skills, Special Analytical Abilities, Co-coordinating Skills, Good Reporting Skills, Good Leadership Skills.

14. Some Workshops Attended Since 2000

Date	Workshop
2000	OTI/USAID Workshop on Conflict Resolution. Lake Chad Hotel, Maiduguri. April, 2000.
28-30 June, 2001.	OTI/USAID - Rahama Women and CEDPA Workshop on Conflict Resolution for Local Governments in Bzuchi State. Awala Hotel, Bzuchi, 28th - 30th June, 2001.
July 2001	TMO Workshop on Resolving Electoral Conflicts. Roseview Hotel, Abuja.
15 - 16th January, 2002.	Integrated Management of Natural Resources in the Transboundary Areas of Nigeria and Niger PDF B: 1st National Stakeholders' Workshop, Maiduguri International Hotel, Maiduguri.
3 - 4th April, 2002.	Integrated Management of Natural Resources in the Transboundary Areas of Nigeria and Niger PDF B: National Stakeholders' Workshop, Maiduguri International Hotel, Maiduguri.
April, 2002.	WARDC Training of Trainer Workshop on Gender and Constitutional Reform and the formation of Gender and Constitutional Reform Network (GECORN). Abuja.
12th June, 2002.	Development Information Network Workshop on Assessment of the Success of Agenda 21 implementation in Nigeria. Lake Chad Hotel, Maiduguri.
3 - 6th July, 2002	Citizen's Forum for Constitutional Reform Workshop for Civil Societies on the Contentious Issues in the 1999 Constitution of the Federal Republic of Nigeria. Dayspring Hotel, Abuja.
19th August - 4th September, 2002	World Summit on Sustainable Development. Johannesburg, South Africa.
3rd to 14th of June, 2003.	United Nations Convention on the Status of Women (CSW) 47th Meeting in New York.
October 2 - 3 2003.	National Poverty Forum. Abuja. CDD and DFID.

14. Professional experience

Date from - Date to	Location	Company	Position	Description
1978 to date	Nigeria	University of Maiduguri, Nigeria	Lecturer	Teaching and Research
1991 - 1998	Nigeria	University of Maiduguri, Nigeria	Coordinator, External Linkages and Project	Coordination and monitoring & evaluation of all project funds and implementation and advising the administration on progress and ensuring compliance with laid down regulations and due process as contained in the memoranda of understanding
2002 - Date	Nigeria	University of Maiduguri, Nigeria	Member of the University of Maiduguri Strategic Planning Committee	As a team member saddled with the responsibility of developing a Strategic Plan for the University
2000 - 2005	Nigeria	University of Maiduguri, Nigeria	Head of Department, of Biological Sciences	Day to day management of departmental affairs including both staff and student matters, development of curricula, financial matters, supervision, evaluation, advising the central administration, etc
2002 - date	Nigeria	University of Maiduguri, Nigeria	Member of the University of Maiduguri Senate	Formulation of policies guiding the operation of the Institution
2006 - date	Nigeria	University of Maiduguri, Nigeria	Vice Chancellor's Representative on the Remedial Science Programme	Advisory role on the programme and representing the Chief Executive
2006 - date	Nigeria	University of Maiduguri, Nigeria	Vice Chancellor's Representative on the Faculty Board of Pharmacy	Representing the Vice Chancellor to ensure that due process is followed in the running of the Faculty and give advice, and participate in the annual appraisals of staff in the College
2007 - date	Nigeria	University of Maiduguri, Nigeria	Vice Chancellor's Representative on the College Board of Medical Sciences	Representing the Vice Chancellor to ensure that due process is followed in the running of the College and participate in the annual appraisals of staff in the College
2003 - date	Nigeria	Federal College of Education (Technical), Potiskum, Nigeria	External Examiner	Moderation of examination question papers and of answer scripts
2004 - 2007	Nigeria	University of Jos, Nigeria	External Examiner	Moderation of examination question papers and of answer scripts and viva voce for undergraduate students
2010 - date	Nigeria	University of Maiduguri	Chairperson on Committee on Strategic Goals 8 & 9 of the University of Maiduguri Strategic Plan	Make recommendations and advice to the University Management

15. Consultancies in Area of Development

Date from - Date to	Location	Company	Position	Description
1992	Nigeria	Bomo Water Corporation, Maiduguri	Consultant	To assess the quality of water from Lake Alau and post treated water
2005-2007	Nigeria	National AIDS Control Agency (NACA)/World Bank	Project Manager	Design, implementation, monitoring and evaluation and facilitation of linkages with various line ministries and institutions
2006 - 2007	Nigeria	Joint Donor Basket Fund/Centre for Development and Population Activities (CEDPA)	Project Manager	Coordinating a Project on Civil Society Led Gender Monitoring of 2007 General Election in Nigeria. Coordination and management of the project in the NE geopolitical zone of Nigeria
2006 - 2007	Nigeria	UNIFEM	Project Manager	Coordinating a Project on Enhancing women's political participation in the 2007 general elections and beyond. Coordination and management of the project in the Borno and Yobe states of Nigeria
2006-2007	Nigeria	Technical Review Committee on the Review and domestication of the Child Right Convention (CRC), Borno state (GTZ supported Initiative).	Technical Assistant/Representative of Civil Society	Mainstreaming of Gender concerns into the CRC, ensuring that human rights standards are not compromised in the process of review and domestication of the CRC, articulating and incorporating concerns of civil society especially women groups into the review process
2007	Nigeria	EU SRIP Yobe State, Nigeria	Consultant	Capacity building for local government officials on gender and gender budgeting
2007	Nigeria	EU SRIP Jigawa State, Nigeria	Consultant	Capacity building for State government officials on gender and gender budgeting
2006 - 2008	Nigeria	GTZ Multi-sectoral Women Empowerment Project: Good Governance Component, Borno State, Nigeria	Project Component Manager	Design, implementation, monitoring & evaluation, supervision (general management of a project aimed at facilitating community participation and good governance in 4 Local Government Areas of Borno state, North East Nigeria
2008	Nigeria	DFID/Coalition for Change (C4C)	Peer Reviewer	Peer review of Draft Report of the Project on Mapping and Assessing the Capacity of Community Development Associations in Strengthening Local Governance. Jos, 2008
2008	Nigeria	DFID/Coalition for Change (C4C)	Participant	Mainstreaming gender and children's rights into Legislation both at the state and national levels
2012	Ghana	WANEP-Accra	Consultant	Development and Implementation of National Action Plans on UNSCR 1325 and Related Resolutions: A Guideline

16. **Other relevant information (e.g. Publications)**
 1. Dord, P.O. and Enochie, A.M. (1985). Survival of the cowpea seed predator, *Spodoprius* sp. on cowpea residues in Zaria. *Journal of Arid Agriculture* 1: 85 - 105.
 2. Dord, P.O. and Ikabili, G.K.A. (1993). Problems of irrigated agriculture (dry season farming) on the flood plains of the Yobe River. In Kalluvu et al. (eds) *Strategies for Sustainable Use of Wetland Land in Northern Nigeria*. CEREHEAD, Abuja, Zaria, pp 56 - 61.
 3. Dord, P.O. and Enochie, A.M. (1996). Screening cowpea lines for resistance to scab caused by *Sphaeroma* sp. *Research Journal of Science* 2: 31 - 39.
 4. Dord, P.O. (1997). Effect of NPK fertilizer combinations on the incidence and severity of eyespot. *Cereal Research Communication* 25(2): 211 - 218.
 5. Dord, P.O. and Hockley, F. (1997). Evaluation of fungicides for the control of eyespot and sharp eyespot of wheat in the UK. *Research Journal of Science* 3 (1): 71 - 79.
 6. Dord, P.O. (1998). Anthracnose a new menace of sorghum by *Pseudocercospora fijiensis* (synonym of wheat). *Biocience Research Communication* 10(2): 223 - 228.
 7. Beshir, G.K.A., Dord, P.O. and Muhammad, Z. (1998). Effective monitoring and forecasting of pest and disease outbreaks in millet cropping systems. In Enochie et al. (eds) *Wheat and Sorghum Agriculture: Production, Processing and Research Priorities*. ICRISAT Publication, pp. 138 - 153.
 8. Dord, P.O. and Hockley, G.K.A. (1998). Management of scale insects on neem (*Azadirachta indica* A. Juss) in West Africa. pages 1 - 10 in Lale, N.E.S. et al. (eds) *Entomology in the Nigerian Economy: Research Focus in the 21st Century*. ESN Occasional Publication 31 (1998).
 9. Dord, P.O. and Saki, B.S. (1998). Host Range of the neem scale insect (*Azadirachta indica* Nees and Ulrich) attacking neem as a background to its control. Pages 25 - 31 in Lale, N.E.S. et al. (eds) *Entomology in the Nigerian Economy: Research Focus in the 21st Century*. ESN Occasional Publication 31 (1998).
 10. Dord, P.O., Gopal, B.V. and Ali, M. (1998). Anatomy of the neem seed leaf (*Azadirachta indica* A. Juss) in relation to the neem scale insect. Pages 39 - 44 in Lale, N.E.S. et al. (eds) *Entomology in the Nigerian Economy: Research Focus in the 21st Century*. ESN Occasional Publication 31 (1998).
 11. Dord, P.O. and Wabulali, D. (1998). Effect of the scale insect (*Azadirachta indica* Nees and Ulrich) on neem seed production and germinability in Daura State. Pages 55 - 61 in Lale, N.E.S. et al. (eds) *Entomology in the Nigerian Economy: Research Focus in the 21st Century*. ESN Occasional Publication 31 (1998).
 12. Ikabili, G.K.A. and Dord, P.O. (1998). Forecasting damage to millet seedlings from data on densities of eggs of *Orthocentrus* *Krom* (Orthoptera: Acrididae). Pages 1 - 10 in Lale, N.E.S. et al. (eds) *Entomology in the Nigerian Economy: Research Focus in the 21st Century*. ESN Occasional Publication 31 (1998).
 13. Dord, P.O. (1999). In vitro assessment of the potentials of *Trichoderma* spp. for the biological control of *Pseudocercospora fijiensis* (eyespot of wheat) and *Blumeria tennella* (sharp eyespot of wheat). *Biocience Research Communication* 11(4): 287 - 291.
 14. Dord, P.O. (1999). Effects of *Trichoderma* spp. on the development of eyespot (*Pseudocercospora fijiensis*) and sharp eyespot (*Blumeria tennella*) on wheat in the greenhouse. *Biocience Research Communication* 12(1): 12 - 18.
 15. Dord, P.O. and Saki, B.S. (1999). In vitro evaluation of neem and eucalyptus seed powder for the control of leafhopper of sorghum (*Chlorophylla* *sp.*). *Applied Tropical Agriculture* 4(2): 104 - 108.
 16. Dord, P.O. (1999). Biology, ecology and control of pathogenic organisms of stored cereals and pulses. pp 112 - 132 in *First of Stored Cereals and Pulses in Nigeria: Biology, Ecology and Control* (Ojima, T.I. and Lale, N.E.S. eds). Dava Collins Publication, Nigeria.
 17. Dord, P.O. (1999). Biology of inhibitory substances (HIS) produced by *Pseudocercospora fijiensis*. *West African Journal of Biological Sciences* 5: 24 - 32.
 18. Dord, P.O. and Yusuf, A.B. (1998). Evaluation of Aquatic Neem Seed Extract (ANSE) for the control of tomato leaf miner (*Chlorophylla* *sp.*) in Daura State, Nigeria. *West African Journal of Biological Sciences* 10: 44 - 51.
 19. Dord, P.O. and Guleri, I. (2001a). Effect of Storage of Cowpea on the Type and Prevalence of Fungal Organisms. *Nigerian Journal of Experimental and Applied Biology* 2 (1): 67 - 71.
 20. Dord, P.O. and Guleri, I. (2001b). Evaluation of Some Plant Products for the Control of Fungal Infestation of Stored Cowpea. *Nigerian Journal of Experimental and Applied Biology* 2 (1): 71 - 78.
 21. Dord, P.O. (2001). Laboratory evaluation of plant materials for the cultivation of earthworm. *Journal of Arid Agriculture* 12: (in press).
 22. Dord, P.O. (2001). Neem and its pest, *Azadirachta indica* Nees and Ulrich (the neem scale insect): the story so far. Proceedings of the UNIDO Workshop of Experts on Sustainable Utilisation of Neem Tree in Northern Nigeria, Daura, Kogi State. 18-19th September, 2001.

22. Donli, P.O. (2001). The potentials of neem products for plant disease management. Proceedings UNIDO Workshop of Experts on Sustainable Utilisation of Neem Tree in Northern Nigeria, Dutse, Jigawa State. 18-19th September, 2001
23. Donli, P.O. and Gulani, I.I. (2002). Prevalence of Fungi in Stored Cowpea Infested with Bruchid in Maiduguri, Nigeria. *Research Journal of Science*: (in press)
24. Rabo, E.T., Eze, H.N. and Donli, P.O. (2002). Study of nutrient content of water leaf grown from different cutting techniques in semi-arid zone of Nigeria. *Journal of Sustainable Tropical Agricultural Research* 8: in press.
25. Rabo, E.T., Eze, H.N. and Donli, P.O. (2002b). Growth of water leaf from root and stem cuttings in the semi-arid zone of Nigeria. *Bioscience Research Communication* 15: in press.
26. Donli, P.O. and H. Dauda (2002). Evaluation of moringa seed extract (AMSE) as seed treatment biofungicide for groundnut. *Pest Management Science* 58: (in press)
27. Aliyu, B., Habi, S.S., Donli, P.O. and Anaso, A.B. (2008). Effect of metalaxyl and neem seed oil on the incidence of downy mildew of pearl millet. *Continental J. Agronomy* 2: 1 - 7.

EDITED BOOKS

28. Aminu-Kano, M., Bushin, G.K.A., Anaso, A.B., Donli, P.O., Tijani, B. and Garba, S. (1996)(eds). *Field Guide for Integrated Management of Major Insect Pests, Diseases and Weeds in the NEAZDP Operational Area*. 2nd edition. NEAZDP Publication.
29. Lale, N.E.S., Molta, N.B., Donli, P.O., Dike, M.C. and Aminu-Kano, M. (1998)(eds). *Entomology in the Nigerian Economy: Research Focus in the 21st Century*. ESN Occasional Publication 31.

CONFERENCE/WORKSHOP PAPERS AND REPORTS

1. Donli, P.O. (1993a). Analysis of water samples from Lake Alau Reservoir for algae. Report to the Borno State Water Corporation, October, 1993. 12 pp.
2. Donli, P.O. (1993b). Qualitative analysis of coliform bacteria in raw water from Lake Alau Reservoir. Report submitted to the Borno State Water Corporation, November, 1993. 11 pp.
3. Donli, P.O. (1994). Women and the sustainable development of the arid zone of Nigeria. Paper presented at the CAZS (University of Maiduguri) - Silsoe College, Cranfield University/EC First International Conference on Research for Development of the arid zone of Nigeria. June 1994, University of Maiduguri, Maiduguri, Nigeria.
4. Donli, P.O. (1995). Biological control of the scale insect on neem. A Report submitted to the Federal Government of Nigeria and the FAO on the visit to the HBC, Muguga, Kenya. July, 1995.
5. Donli, P.O. (1996). Women and Participation in development projects. A Report submitted to the British Council and University of Maiduguri on the visit to the University of Wales, Bangor, United Kingdom on Women and Participation. October, 1996.
6. Donli, P.O. (1997). Marginalisation of Women in the Management of the Environment. Paper presented at the 41/42nd Annual Conference of History Society of Nigeria.
7. Donli, P.O. and Sars, B.S. (1993). Host range of the neem scale insect in Borno State. Paper presented at the Meeting of the Plant Protection Experts of Member States of the Lake Chad Basin Commission (LCBC). September, 1993, Maiduguri. 21 pp.
8. Donli, P.O. (1999). Gender participation in the implementation of the convention to combat desertification with special reference to the national action programmes. Paper presented at the UNDP/Fed. Ministry of Environment on NAP for Nigeria. Royal Tropicana Hotel, Kano. October 1999.
9. Donli, P.O. (2002). Stigmatisation and discrimination of people living with HIV/AIDS: obstacles to prevention and management. Paper presented at the SWAAN Seminar to celebrate the 2002 World AIDS Day at the Conference Hall of the Federal Secretariat, Maiduguri on the 27th of November, 2002.
10. Donli, P.O. (2002). Political empowerment of women: strategies for mobilisation for enhanced participation. Paper presented at the GTZ-NCWS Workshop on Political Empowerment of Women on the 11th December 2002 at the Women Development Centre Auditorium, Maiduguri.
11. Donli, P.O. (2005). Men as Partners. Paper presented at the GTZ-NCWS Workshop on Political and Economic Empowerment of Women at Mafa Local Government of Borno State. 2005.

12. Donli, P.O. (2005). Strategies for advocacy, lobbying and facilitation. Paper presented at the GTZ-NCWS One - day TOT Workshop for the Sub-Committees on the Child Right Act. Women Development Centre, Maiduguri. 3rd August 2005.
13. Donli, P.O. (2005). The role of NGOs in the enactment and enforcement of the Child Right Law in Borno state. Paper presented at the GTZ-NCWS Sensitization Workshop on the Enactment and Enforcement of the Child Right Law in Borno State. International Conference Centre, Mass Usman Secretariat, Maiduguri. 4th August 2005.
14. Donli, P.O. (2007). Nigeria's commitment to International conventions- Achievements so far. Paper presented at the JDBF and UNIFEM retreat Summit for Women in Governance, Obudu, Nigeria. October 2007
15. Donli, P.O. and Aina, A. B. (2007). Legal Pluralism. Implications for Women's Rights in Nigeria. Paper presented at the IEUC/GTZ/Centre for Culture: Culture, Human rights and Democracy 18 -19th May 2007. Seville, Spain
16. Donli P.O. and Aina, A.B. (2007). Access to Justice for Women in the Islamic Context: The GTZ Example. Paper presented at the Evangelische Akademie Loccum International Workshop on "Administration of Justice in Africa: Effectiveness, Acceptance and Assistance. November/December 2007. Loccum, Germany.
17. Donli, P.O. (2007). Gender relations in Borno and Yobe state: implications for women and millennium development goals. Paper presented at the Kinem Borno Millennium Conference at the State Hotel, Maiduguri. 12 – 17th November 2007
18. Donli, P.O. (2008). Strategies for gender equality promotion. Paper presented at the National Stakeholders' Workshop on the Occasion of International Women's Day Celebration 2008. Actionaid Nigeria and Feminist Movement in Nigeria, Abuja, Nigeria.
19. Donli, P.O. (2008). Gender issues in the Constitution and the Electoral Act 2006. A memorandum presented to the Presidential Electoral Reform Committee holding in Maiduguri, Nigeria. May, 2008
20. Donli, P.O. (2008). The Women's Issues in the Nigerian Constitution. Paper presented at the Open Society Initiatives for West Africa (OSIWA)/Gender and Constitution Reform Network (GECORN) Stakeholders' Workshop on Constituency Building. June, 2008.
21. Donli, P.O. (2009). United Nations Security Council Resolution 1325: Opportunities for Women's Participation in Peace Processes in Nigeria. Journal of Women in Peacebuilding 2(4): 37 – 58.
22. Donli, P.O. (2011). Looking at the Communiqué of ECOWAS Thirty Ninth Ordinary Session of the Authority of the Heads of States and Governments through a Gender Lens. Paper presented at Regional Peace Action meeting on the target of women in the Ivorian political stalemate. Monrovia, Liberia. 6th – 7th April, 2011.
23. Donli, P.O. (2011). Values and Leadership Competencies for Driving Nations, Corporates and Institutions Forward. Paper presented at the Nigerian Institute of Management (NIM) Women in Management and Leadership Summit. 10 – 11th May, 2011. Abuja, Nigeria



CURRICULUM VITAE

- I. NAME:** Professor Susi Sumaila **SANUSI**
DATE & PLACE OF BIRTH: 6th December, 1946; Igboho, Orelupe L.G., Oyo State, Nigeria
MARITAL STATUS: Married with children
PRESENT ADDRESS: Dept. of Biological Sciences, Faculty of Science, Univ. of Maiduguri, PMB 1069, Maiduguri, Nigeria
FIRST EMPLOYMENT: Lecturer II, Univ. of Maiduguri, September, 1977
DATE OF CONFIRMATION: 20th September, 1980
PRESENT EMPLOYMENT: Professor, Univ. of Maiduguri, October, 2006
AREAS OF SPECIALIZATION: Ecological Resource Management
CORE TEACHING SUBJECTS: Taxonomy, Conservation, Ecology, Environmental Biology
- II. SCHOOLS ATTENDED WITH DATES AND QUALIFICATIONS:**
PRE-UNIVERSITY & UNIVERSITY
 University of Ibadan, Ibadan, Nigeria: 1985 - 1990. **PhD. (Forest Resources Mgt.)**
 University of Ghana, Legon-Accra, Ghana: 1975 - 1977. **MSc. (Botany)**
 University of Cape Coast, Cape Coast, Ghana: 1973 - 1974. **BSc. (Hons.) Botany**, 2¹
 University of Cape Coast, Cape Coast, Ghana: 1969 - 1973. **BSc. Gen (Educ.)**, 2²
 Ghana College, Tamale, Ghana: 1960-65. **GCE Ordinary Certificate**
- III. SCHOLARSHIPS AND FELLOWSHIPS**
PhD. Univ. of Ibadan: University on Maiduguri Study Fellowship, 1985 - 1990.
 Fieldwork: Part-funding by African Biosciences Network (ABN).
 Data Analysis in University of Wales, Bangor, UK: British Council Travel Fellowship, Sept. 1988 - Jan. 1989.
MSc. Univ. of Ghana, Legon-Accra: Association of African Universities (AAU) Scholarship, June 1975 - June 1977.
BSc. Programmes, Univ. of Cape Coast, Ghana: Ghana Cocoa Marketing Board (GCMB) Scholarship, June 1969 - June 1974.
- IV. DISSERTATIONS AND THESES**
Sanusi, S.S. 1992. 'Taxonomy and Ecology of Acacias in Borno State, Nigeria with special reference to *Acacia albida* Delile and *A. senegal* (L.) Willdenow'. **PhD. Thesis**, University of Ibadan, Ibadan, Nigeria. (Supervisor: Prof. D.U.U.Okali)
Sanusi, S.S. 1980. 'A study on grazing as a factor influencing the distribution of benthic littoral algae' **MSc. Thesis**, University of Ghana, Legon-Accra, Ghana. (Supervisor: Dr. D.M. John, British Museum (Natural History), London).
Sanusi, S.S. 1974. 'General morphology and growth responses of *Manihot esculenta* Cranz after gamma irradiation'. **BSc. (Hons.) Dissertation**, University of Cape Coast, Cape Coast, Ghana. (Supervisor: Prof. M.M. Imam)
Sanusi, S.S. 1973. 'The Formation and Activities of a Biology Club in a Secondary School' **BSc. Gen. (Educ.) Dissertation**, University of Cape Coast, Cape Coast, Ghana.

V. ADMINISTRATIVE/ACADEMIC RESPONSIBILITIES

- i. External Examiner, Adamawa State University, Mubi, 2011-2012, Undergraduate Level
- ii. External Examiner, Biology Programme, Sir Abubakar Tafawa Balewa University (ATBU), Bauchi, Nigeria: 1996 - 2001, 2011, Undergraduate and Postgraduate Levels.
- iii. External examiner, Dept. of Geography, Bayero University, Kano (BUK): 2001 - 2002.
- iv. External Examiner, Usmanu Danfodio University, Sokoto (UDUS), Postgraduate, 2010-2011
- v. Faculty Representative, University of Maiduguri Library Committee: 1995 - 2002
- vi. Member, Joint Faculties of Science & Eng. Senate Business Committee: 2001 - 2002.
- vii. Faculty Representative, Univ. Postgraduate Board: 2005 – Date.
- viii. Chairman, Faculty of Science Committee on Environment and Sanitation: 1999 - 2002.
- ix. Co-ordinator, Field Courses 1 & 2: 1980 - 2000.
- x. Co-ordinator, Departmental Remedial Year Programme: 1978 - 84; 2000 - 2002.
- xi. Chief Moderator, Affiliated Colleges, Borno State: 1982 - 1985.
- xii. Member, Editorial Board, Nigerian J. of Experimental & Applied Biology: 1998 - 2002.
- xiii. Staff Advisor, Unimaid Conservation Club: 2000 - 2002.
- xiv. Staff Advisor, Unimaid Green Students Movement: 2008

VI. MEMBERSHIP OF LEARNED SOCIETIES

- i. Member & **National Vice-President**, Botanical Society of Nigeria (BOSON).
- ii. Member & **Correspondence Editor**, Ecological Society of Nigeria (EcSN).
- iii. Member, Nigerian Environmental Study/Action Team (NEST).
- iv. Member, International Group for the Study of Mimosoideae (IGSM), France.
- v. Member, Nigerian Society for Biological Conservation (NSBC).
- vi. Member, Forestry Association of Nigeria (FAN).
- vii. Member, Biotechnology Society of Nigeria (BSN)
- viii. Member, Science Association of Nigeria (SAN)

VII. UNIVERSITY TEACHING EXPERIENCE

Professor, since 2006.

Associate Professor, 2002-2005

Senior Lecturer, Dept. of Biological Sciences, University of Maiduguri, 1994- 2001.

Lecturer I, Dept. of Biological Sciences, University of Maiduguri, 1993.

Lecturer II, Dept. of Biological Sciences, University of Maiduguri, 1977 - 1992.

VIII. DETAILS OF TEACHING EXPERIENCE AT UNIVERSITY LEVEL**1. COURSES (Taught & Teaching)****(a). UNDERGRADUATE**

RCB-2: Plant Diversity, RCB-4: Ecology.

BIO 104: Introduction to Genetics and Heredity

ENB 204: Introduction to Environmental Biology

ENB 201: Environmental Economics

BL 202: General Ecology [Modibbo Adama Univ. of Technology (MAUTEC)], Yola

BT 304: Plant Ecology (Modibbo Adama University of Technology), Yola

ENB 310: Preparation & Presentation of Environmental Data

ENB 311: Introduction to Environmental Conservation

ENB 315: Environmental Pollution

ENB 401: Policies in Environmental Management

ENB 402: Environmental Impact Assessment

ENB 499: Supervision of Student Project (B.Sc. Environmental Biology)
 BOT 301/BT 301: Plant Taxonomy (Here, Modibbo Adama University of Technology, Yola and Adamawa State University (ADSU), Mubi).
 BOT 304: Plant Ecology.
 BOT 406: Weed Biology (Here and Adamawa State University (ADSU), Mubi).
 BT 511: Conservation of Natural Resources (Modibbo Adama Univ. of Technology, Yola)
 BOT 408: Plant Reproduction (Adamawa State University (ADSU), Mubi)
 BT 506: Soil Science (Modibbo Adama University of Technology, Yola)
 BIO 101: Plant Form and Function.
 BIO 304: Tropical Ecosystems.
 BIO 304: Histology of Plants (Adamawa State University (ADSU), Mubi)
 BIO 402: Biogeography
 BIO 405: Conservation and Development of Natural Resources
 BIO 408/BOT 408/ENB 408: Field Course II.
 BOT/BIO 499: Supervision of Student Projects (BSc. Botany & Biology)
 ZOO 411: Wildlife Ecology

(b). **POSTGRADUATE**

MSc.

BOT 704: Principles of Classical and Modern Taxonomy.
 BOT 705: Plant and Environment.
 BOT 711: Biogeography.
 BIO 703: The Ecology of Plant Components of Ecosystems in Arid Environment.
 BIO 705: Conservation in Arid Environments.
 BIO 713: Wildlife Management
 BOT/BIO 799: Supervision of MSc. Thesis

PhD.

BIO 812: Local Practices in Arid Zone Ecology
 BIO 813: Large-scale developments in Arid Zone Ecology
 BIO 815: The economics of environmental conservation
 BIO 851: Characteristics of economically important plants of the Sahel and Savanna
 BIO 852: Climatic factors in relation to economically important plants in the Sahel and Savanna
 BOT/BIO 899: Supervision of PhD. Theses

2. STUDENTS' PROJECTS SUPERVISION

(a). **BSc. (499 Projects) Dissertations**

Many in Botany, Biology, Ecology and Environmental Biology.

(b). **MSc. Thesis**

1. Ahmed Mohammed Abubakar (PGA/98/07155), 'Biodiversity composition in protected and free areas of Hadejia-Nguru Wetlands, Yobe State, Nigeria', 2009, as sole supervisor, Arid Zone ecology, Dept. Biological Sciences, University of Maiduguri, Nigeria.
2. Abdullahi, Bello (PGA/97/07151), 'Flora of the Gaji River Complex, Yankari National Park, Nigeria', 2001, as sole supervisor, Arid Zone ecology, Dept. Biological Sciences, University of Maiduguri, Nigeria

3. Mbaki Bierry Twen (PGA/95/07151), 'Effects of water treatment and shell removal on germination and seedling development of *Vitellaria paradoxa* Gaertn. f.', 2000, as sole supervisor, Arid Zone ecology, Dept. of Biological Sciences, University of Maiduguri, Maiduguri, Nigeria.
(c). **PhD. Thesis**
1. Binta, Aliyu Kyari (PGA/01/06401). "Influence of Seed Characteristics on Germination and Early Growth of some Leguminous Tree Species in Borno State, Nigeria." 2011. Dept. of Biological Sciences, University of Maiduguri, Maiduguri, Nigeria, as a co-supervisor with Prof. B.V. Gopal and Prof. E.T. Rabo, all of the Dept. Biological Sciences, University of Maiduguri, Nigeria.
2. Emeka, Daniel Oruonye (PGA/03/06401). 'An assessment of the socio-economic and ecological impact of three resettlement areas (Ali Sherifi, Sagie and Dambore) in the Lake Chad Region of Nigeria Dept. of Biological Sciences, University of Maiduguri, Maiduguri, Nigeria, as a lead supervisor with co-supervisors Dr. H.K. Ayuba, Dept. of Geography and Dr. Auwal, Ibrahim, Faculty of Law, University of Maiduguri, Nigeria.', 2008. Arid Zone Ecology, Dept. of Biological Sciences, University of Maiduguri, Maiduguri, Nigeria, as a lead supervisor with co-supervisors Dr. H.K. Ayuba, Dept. of Geography and Dr. Auwal, Ibrahim, Faculty of Law, University of Maiduguri, Nigeria.
3. Donald, J. Wulehibal (PGA/95/07157). 'Woody plant diversity and conservation in Sambisa Game Reserve'. 2007. Arid zone ecology, Dept. of Biological Sciences, University of Maiduguri, Maiduguri, Nigeria, as the sole supervisor.
4. Ahmad, Abdulhameed, 'A phytosociological study of some sites adjoining Yankari National Park, Bauchi State, Nigeria', 2002. Abubakar Tafawa Balewa University (ATBU), School of Science and Science Education, Biological Sciences Programme, Bauchi, Nigeria, as lead external supervisor with Dr. A. M. Gani, ATBU, Bauchi.
5. Mohammed, Bello Abdullahi (PGS 2001-2002/401059), 'Phytosociological studies and community rural appraisals towards biodiversity conservation in Yankari Game Reserve, Bauchi-Nigeria'. 2009, as the lead supervisor with Drs. S.D. Abdul and F.B., Jafun of the Abubakar Tafawa Balewa University (ATBU), School of Science and Science Education, Biological Sciences Programme, ATBU, Bauchi.

IX. LEARNED CONFERENCES/WORKSHOPS ATTENDED & PAPERS PRESENTED

1. 18th Annual Conference of the Botanical Society of Nigeria (BOSON), Bayero University Kano (BOSON BUK- 2009), 8th – 12th March, 2009. Theme: Plants, Environmental challenges and the African household. Paper presented: 'The importance of plant resources to the attainment of food security in Nigeria', by Oruonye, E.D. and Sanusi, S.S.
2. 17th Annual Conference of the Botanical Society of Nigeria (BOSON), Ebonyi State University (EBSU), Abakaliki, 16th – 19th March 2008. Theme: Botany and the Nation's Economy. Paper presented: 'The Impact of climate change on fishing activities in the Lake Chad Region of Nigeria', by Sanusi, S.S. and Oruonye, E.D.
3. 43rd Session of the National Forestry Development Committee on 'Community-Based Forestry Management (CBFM) in Nigeria', Gombe, Gombe State, 27th – 28th February 2008, Represented the Director, Centre for Arid Zone Studies (CAZS), University of Maiduguri.
4. Maiden Annual Conference, Ecological Society of Nigeria (EcSN). National Veterinary Research Institute (NVRI), Vom, Jos, Plateau State, Nigeria. Monday 15th – 19th October, 2007. Theme: 'Ecology of the Nigerian Environment'. Paper presented: 'Industrial Pollution in Nigeria: price of development or corporate irresponsibility?' by Sanusi, S.S. and Ivo, K. A.

5. 16th Annual Conference of the Botanical Society of Nigeria (BOSON), University of Benin, Benin City, Edo State, 11th – 15th March 2006. Theme: Reestablishment of the Central Role of Plants for Sustainable Economic Development. Papers presented: (1) 'Crop plants, Biotechnology and the Poor: A Viewpoint' by Sanusi, S.S. (2) 'People needs and attitudes around the Yankari Game Reserve, Bauchi' by Abdullahi, M.B., Sanusi, S.S. Abdul, S.D. and Bawa, F.B.
6. 15th Annual Conference of the Botanical Society of Nigeria (BOSON), University of Uyo, Uyo, Akwa Ibom State, 4th – 8th April 2006. Theme: Botany and Environmental Health. Paper presented: 'Ethnomedicine: Plants in Reproduction and Sexuality in Nigeria' by Sanusi, S.S.
7. 41st Annual Conference of the Science Association of Nigeria (SAN), Usmanu Danfodiyo University, Sokoto (UDUS), 25th – 29th April 2005. Theme: Science, Globalisation and Nigerian State. Paper presented: 'Globalisation and smallholder agriculture' by Sanusi, S.S.
8. 14th Annual Conference of the Botanical Society of Nigeria (BOSON), Nigeria Defence Academy (NDA) Kaduna, 13th – 17th March 2005. Conference Theme: Sustainable Use of Plant Resources: Implication for Economic Recovery and National Security. Papers presented: (1). 'Food Biotechnology: Problem-solving or problem-causing' by Sanusi, S.S. and Damagum, S. (2). 'Bioinformatics: Potentials and Status in Nigeria' by Sanusi, S.S.
9. 13th Annual Conference of the Botanical Society of Nigeria (BOSON). Abubakar Tafawa Balewa University, Bauchi, 26th – 30th September 2004. Papers presented: (1). 'Protecting plants from genetic erosion and pesticide pollution' by Sanusi, S.S. and Rabo, E.T. (2). 'Environmentalism: wither Nigeria' by Sanusi, S.S.
10. 17th Annual Conference and General Meeting of the Biotechnology Society of Nigeria (BSN), University of Ado-Ekiti, Ekiti State, 23rd – 27th May, 2004. Paper presented: 'Biotechnology and the Environment: Clashing viewpoints' by Sanusi, S.S. and Kokori, M.
11. 'Modules in Gum Arabic Tapping Techniques: A Roving Training Workshop for Gum Arabic Farmers in Borno, Yobe, Jigawa, Katsina and Kebbi States', Organised by the Centre for Arid Zone Studies (CAZS), University of Maiduguri, Nigeria and sponsored by the Federal Ministry of Agriculture and Rural Development (Department of Agriculture), Abuja, Nigeria, August-September, 2002. Papers presented: (1) 'Identification of gum-producing plants in the Northern States (Module I)' by Sanusi, S.S., Gwary, D.M. and Kabura, B.H. (2) 'Tapping and processing of gum-arabic (Module IV)' by Sanusi, S.S., Barkindo Adamu and Babagana Kolo.
12. 'Workshop on Teaching and Research Methods', 3rd – 5th September 2002. University of Maiduguri, Maiduguri, Borno State, Nigeria.
13. 11th Annual Conference of the Botanical Society of Nigeria (BOSON), 'UNAAB 2002', 10th - 13th March, 2002, University of Agriculture, Abeokuta, Ogun State, Nigeria. Papers presented: (1) 'Relevance and Potential Hazards of Herbalism' by Sanusi, S.S., (2) 'Threats and Management of Herbal Resources in North-Eastern Nigeria' by Sanusi S.S. and Nathaniel, Lydia, K.
14. National Biodiversity Strategic and Action Plan (NBSAP) Zonal Workshop, Yola International Hotel, Yola, Adamawa State. 14th – 17th May, 2002. To review the report of the Participatory Rural Appraisal (PRA) survey conducted in the North East of Nigeria for incorporation into the National Biodiversity Strategy and Action Plan.

15. ODSG/TAN-CONSULT National Workshop on Forest Industries, Environment and Sustainable Development, 28th-29th November, 2001, Akure, Ondo State, Nigeria. UNEP/GEF Assisted 1st National Stakeholders Workshop on "Integrated Ecosystem Management in the Transboundary Area between Nigeria and Niger Republic" (PDF'B'), 15th-16th January, 2002, Maiduguri International Hotel, Maiduguri, Borno State, Nigeria.
16. 5th National Conference on the Application of Science for National Development and Exhibition, Federal Polytechnic, Mubi, Adamawa State, 14th-17th June, 2000. Paper presented and published in the Proceedings: 'Agri-biotechnology and plant genetic resources management' by Sanusi, S.S. and M.M. Daura.
17. First National Conference of Allied Scientists and Technologists ("Yobe 2000"), The Federal Polytechnic, Damaturu, Yobe State, Nigeria, 13th-15th April, 2000. Papers presented: (1) 'Science and Technology for Development in Nigeria' by Sanusi, S.S. (2) 'Nigeria on the Information Highway' by Sanusi, S.S.
18. 26th Annual Conference of the Forestry Association of Nigeria (FAN), Maiduguri, Borno State, 7th-12th November, 1999. Paper presented and published in the Proceedings: 'Information Needs under Uncertain Environmental Degradation Processes: A viewpoint' by Sanusi, S.S. and Sarah, S.B.
19. A Workshop on Environmental Pollution: A case of oil producing areas in Nigeria. Sponsored by Nigeria National Petroleum Corporation (NNPC)/National Petroleum Investment Management Services (NAPIMS), 4th-7th October 1999. Paper presented: 'Ecological effects of pollutants in the oil producing areas of Nigeria' by Sanusi, S.S.
20. 11th Annual Workshop of the Nigerian Environmental Study/Action Team (NEST), 25th - 28th Oct. 1999, Maharaja Hotels, Kaduna, Nigeria. Theme: 'NGOs, Popular Participation and Environmental Management'
21. 10th Annual Conference of the Botanical Society of Nigeria (BOSON), University of Port Harcourt, River State, Nigeria, 25th - 29th July, 1999. Paper presented: 'Wild food resources in NE Nigeria' by Sanusi, S.S.
22. 3rd Annual Conference of the Nigerian Society for Biological Conservation (NSBC), 1st - 5th December, 1998, Rivers State University of Science and Technology, Port Harcourt, Rivers State, Nigeria. Paper presented: 'Biodiversity: Conservation and Exploitation in NE Nigeria' by Sanusi, S.S.
23. 1997 Bimtrial Conference of the Ecological Society of Nigeria (ECOSON), University of Agriculture, Abokuta, Nigeria, 25th-27th November, 1997. Papers presented: (1) 'Utilization and Conservation of Forest and Wildlife Resources in Nigeria: A viewpoint' by Sanusi, S.S. (2) 'Diversity and Status of the Flowering Plants in the Hadejia-Nguru Wetlands, North East Nigeria' by Sanusi, S.S., Daura, M.M., Bdiya, H.H. and Akinsola, O.A., (3) 'Utilization and Conservation of Crop Genetic Diversity at the Farm Level' by Sanusi, S.S.
24. 10th Anniversary and 9th Annual Workshop of the Nigerian Environmental Study/Action Team (NEST), 2nd - 6th November, 1997, Conference Centre, University of Ibadan, Ibadan.
25. Nigerian Environmental Study/Action Team (NEST) Strategic Planning Workshop, 26th -29th June, 1997, The Conference Centre, University of Ibadan, Ibadan, Nigeria.
26. 8th Annual Conference of the Botanical Society of Nigeria (BOSON), Umaru Danfodiyo University, Sokoto, Nigeria, 4th - 8th May, 1997. Paper presented: 'Systematics: An Essential Tool for Biodiversity Conservation in Borno State' by Sanusi, S.S.

27. BOSEPA/UNDP Workshop on Review of Borno State Environmental Laws. Conference Centre, Musa Usman Secretariat, Maiduguri, 30th April, 1997. Paper presented: 'Forestry and Wildlife Conservation in Borno State' by Sanusi, S.S.
28. FEPA/IUCN National Workshop on 'Biodiversity of the Hadejia-Nguru Wetlands', Abuja, 30th - 31st Oct. 1996. Paper presented: 'Flowering Plants Diversity of the Hadejia-Nguru Wetlands' by Sanusi, S.S. and Daura, M.M.
29. 8th Annual Workshop of the Nigerian Environmental Study/Action Team (NEST), 13th - 16th Oct. 1996, Sponsored by Friedrich Ebert Foundation. Theme: 'Making the Transition to Sustainable Energy Use in Nigeria'. Shiroro Hotel, Minna, Niger State, Nigeria.
30. First Workshop on Borno State Environmental Action Plan (EAP), 14th & 15th August, 1996, JEROK/FEPA, Lake Chad Research Institute (LCRI), Maiduguri, Borno State, Nigeria.
31. Workshop and Fieldwork on 'The Valuation of Wild Resources in the Hadejia-Nguru Wetlands: Participatory Rural Appraisal on the Hidden Harvest', organised by the Hadejia-Nguru Wetlands Conservation Project (HNWCP), Yobe State, Nigeria and the International Institute for Environment and Development (IIED), London, 2nd - 22nd July, 1995. *Sustainable Agriculture Programme Research Series*, Vol. 3, Number 3, 1997. Sustainable Agriculture Programme, IIED, London.
32. First International Conference on 'Research and Development in the Arid Zone of Nigeria', organised by the Centre for Arid Zone Studies (CAZS), Univ. of Maiduguri, Nigeria and Silsoe College, Cranfield University, UK, 19th - 25th June, 1994. Paper presented: 'Natural Regeneration Trials in North-East Arid Zone of Nigeria' by Sanusi, S.S. (1994).
33. Training Workshop on 'GIS and Remote Sensing Applications', organised by the Centre for Arid Zone Studies (CAZS), Univ. of Maiduguri, Nigeria and Silsoe College, Cranfield University, U.K. 11th - 22nd October, 1993.
34. International Workshop on 'Communication about the Environment', organised by the Nigeria Conservation Foundation (NCF) and the British Council. 21st-25th September, 1992.
35. International Workshop on '*Faidherbia albida* in West African semi-arid tropics: The state of art and goal for the future'. Niamey, Niger Republic, 22nd-26th April, 1991. Paper presented published in the Proceedings: '*Faidherbia albida* in Nigeria' by Sanusi, S.S., Verinunbe, I. and Ladipo, D.O. (1992). Organised by ICRISAT (India) and ICRAF (Kenya).

X. PUBLICATIONS

• BOOKS

1. Rabo, E.T. and Sanusi, S.S., 2001. An inventory of Medical Plants of the Nigerian Savanna, 41 pp. (ISBN 978-32 699-0-9) Leviathan Books, 22, Gregory Arueya Street, Kosofe Ketu, Lagos, Nigeria.
2. Orazonye, E.M. and Sanusi, S.S. 2011. Socio-economic and Ecological Impact of Resettlement Scheme: A Case Study of Resettlement Scheme in the Lake Chad Region (Ali Sherriffi, Sagir and Dambore) of Nigeria, 250pp. (ISBN 978-3-8433-8541-1) LAP LAMBERT Academic Publishing GmbH & Co., KG, Saarbrücken, Germany.

• IN PEER REVIEWED/LEARNED JOURNALS

1. Emeka, O. and S.S. Sanusi, 2008. 'Physico-chemical and bacteriological composition of effluents discharged from Maiduguri abattoir into river Ngada'. *Yobe Journal of Environment and Development*, 1(1): 39-47.
2. Sanusi, S.S. and Daura, M.M., 2007. 'Environmentalism in Nigeria: A Viewpoint'. *Research Journal of Science*, 12 (1&2): 1-5.

3. Sanusi, S.S. and Rabo, E.T., 2006. 'Protecting plants from genetic erosion and pesticide pollution'. *Nigerian Journal of Botany*, 19 (2): 336-346.
 4. Abdullahi, M.B. and Sanusi, S.S., 2006. 'A phytosociological study of the herbaceous vegetation of the Gaji Flood Plains, Yankari National Park, Bauchi State, Nigeria'. *Nigerian Journal of Botany*, 19 (1): 61-67.
 5. Abdulhameed, A., Sanusi, S.S. and Abdullahi, M.B., 2005. 'The Influence of human activities on the floristic characteristics of woody plants within and outside Yankari National Park, Bauchi State, Nigeria'. *Nigerian Journal of Botany*, 18: 203-213.
 6. Sanusi, S.S. and M. Kokori., 2003. 'Biotechnology and the Environment: Clashing Viewpoints' *Research Journal of Science*, 9 (1&2): 87-92.
 7. Abdullahi, M.B. and Sanusi, S.S., 2002. 'A phytosociological survey of the woody vegetation of the Gaji River valley, Yankari National Park, Bauchi, Nigeria'. *Nigerian Journal of Experimental and Applied Biology*, 3(1): 73-76.
 8. Sanusi, S.S., 2002. 'Variations within *Acacia senegal* (L.) Wild. populations in Borno and Yobe states, Nigeria'. *Research Journal of Science*, 8(1&2): 73-82.
 9. Sanusi, S.S., 2002. 'Nigeria on the Information Highway'. *Nigerian Journal of Allied Science and Technology*, 1(1): 39-44.
 10. Abdulhameed, A., Subo, A. Gani, A.M. and Sanusi, S. S., 2001. 'Phytosociological studies of a site adjoining Yankari National Park, Bauchi State, Nigeria'. *Research Journal of Science*, 7(1&2): 7-15.
 11. Sanusi, S.S., 2001. 'The climbing and scandent Acacias in Nigeria and a diagnostic key for their identification'. *Research Journal of Science*, 7(1&2): 85-89.
 12. Sanusi, S.S., 2001. 'Wild food resources in north eastern Nigeria'. *Sahel Analyst*, 6(1&2): 104-111.
 13. Sanusi, S.S., 2000. 'Science and Technology for development in Nigeria: A viewpoint'. *Sahel Analyst*, 5(1&2): 95-102.
 14. Sanusi, S.S., Daura, M.M., Bdiya, H.H. and Akinsola, O.A., 1999. 'Diversity and Status of the Flowering Plants in the Hadejia-Nguru Wetlands, North-East Nigeria'. *Nigerian Journal of Ecology*, 1: 27-31.
 15. Sanusi, S.S., 1997. 'Undervalued Forest Resources in NE Nigeria'. *J. Soc. & Mgt. Sci.*, 4(1&2): 85-93.
 16. Sanusi, S.S. and Okali, D.U.U. 1994/95. 'Ecology of Acacias in Borno and Yobe States, Nigeria'. *Annals of Borno*, 11/12: 154-167.
 17. Sanusi, S.S. and Okali, D.U.U., 1993. 'Acacias in Borno and Yobe States, Nigeria: Taxonomy and Nomenclature'. *Annals of Borno*, 10: 77-84.
 18. Sanusi, S.S., 1989. 'A note on records of *Acacia* species in west tropical Africa by countries'. *Bull. Int. Group for the Study of Mimosoideae (IGSM, France)*, 17: 122-131.
 19. Kinako, P.D.S. and Sanusi, S.S., 1987. 'Wildlife browsing and Grazing pressure on the vegetation resources of Yankari Game Reserve and its implication for ecological conservation work'. *Annals of Borno (Maiduguri)*, 4: 273-281.
- **PUBLISHED CONFERENCE PROCEEDINGS**
1. Sanusi, S.S. and Daura, M.M., 2000. 'Agri-biotechnology and plant genetic resources management', a paper presented and published in *Proceedings of the 5th National Conference on the Application of Science for National Development and Exhibition*, The Federal Polytechnic, Mubi, Adamawa State, 14th-17th June, 2000.

2. Sanusi, S.S. and Sarah, S.B., 1999. 'Information Needs Under Uncertain Environmental Degradation Processes: A Viewpoint'. A paper presented and published in the *Proceedings of the 20th Annual Conference of the Forestry Association of Nigeria (FAN)*, Maiduguri, Borno State, 7th -12th November, 1999.
 3. Sanusi, S.S., 1999 'Conservation and Utilization of Crop Genetic Diversity at the Farm level' Accepted for publication in the *Proceedings of the Biennial Conference of the Ecological Society of Nigeria (ECOSON)*.
 4. Sanusi, S.S., 1999 'Utilization and Conservation of forest and Wildlife Resources in Nigeria: A viewpoint'. Paper reviewed and accepted for publication in the *Proceedings of the Biennial Conf. of the Ecological Society of Nigeria (ECOSON)*.
 5. Sanusi, S.S., Verinambaz, I. and Ladipo, D.O., 1992. 'Faidherbia albida in Nigeria'. Pp 183-185. *In: 'Faidherbia albida in the West African semi-arid tropics'*, *Proceedings of a workshop, 22nd-26th April, 1991: Niamey, Niger Republic* [Vandebledt, R. J., ed.]. Patancheru, A. P. 502 324, India: International Crops Research Institute for the Semi-Arid Tropics and Nairobi, Kenya: International Centre for Research in Agroforestry.
- **IN PUBLISHED TEAM/GROUP REPORT**
1. D.U.U. Okali (Lead Consultant), H. Billa, E. Mbanyimom, S.S. Sanusi, M.M. Daura & I. Okico, 1998. 'Carrying Capacity of the Hadejia-Nguru Wetlands: Towards preventing degradation and minimizing conflict over resources use'. IUCN/HNWCP & FEPA, Nigeria. A Report published by IUCN/HNWCP & FEPA.
 2. Sanusi, S.S. and M.M. Daura, 1997. 'Flowering plants components', in the 'Biodiversity Study of the Hadejia-Nguru Wetlands'. 18-month (Dec. 1995-May 1997) Report, Submitted to IUCN/HNWCP, Nguru, Nigeria.
 3. Sanusi, S.S. *et al.* 1997. 'Local-Level Assessment of the Economic Importance of Wild Resources in the Hadejia-Nguru Wetlands, Nigeria'. *Hidden Harvest Project. Research Series, 3(3)*, IIED, London. 92pp. *From Workshop and Fieldwork on 'The Valuation of Wild Resources in the Hadejia-Nguru Wetlands: Participatory Rural Appraisal on the Hidden Harvest'*, organised by the Hadejia-Nguru Wetlands Conservation Project (HNWCP), Yobe State, Nigeria and the International Institute for Environment and Development (IIED), London. 2nd - 22nd July, 1995.
- **IN PUBLISHED TECHNICAL REPORT**
1. Sanusi, S.S., Barikinde, A. and Babagana Kolo, 2002. 'Tapping and Processing of Gum-Arabic', Module IV, pp. 20-22. *In: 'Training Modules in Gum-Arabic Tapping Techniques for Gum Arabic Farmers in Borno, Yobe, Jigawa, Katsina and Kebbi States'*. A Roving Workshop sponsored by the Federal Ministry of Agriculture and Rural Development (Federal Department of Agriculture), Abuja. Organized by The Centre for Arid Zone Studies (CAZS), University of Maiduguri, Aug.-Sept. 2002.
 2. Sanusi, S.S., Ouary, D.M. and Kabura, B.H., 2002. 'Identification of gum-producing plants in the Northern States', Module I, pp. 8-10. *In: 'Training Modules in Gum-Arabic Tapping Techniques for Gum Arabic Farmers in Borno, Yobe, Jigawa, Katsina and Kebbi States'*. A Roving Workshop sponsored by the Federal Ministry of Agriculture and Rural Development (Federal Department of Agriculture) Abuja. Organized by The Centre for Arid Zone Studies (CAZS), University of Maiduguri, Aug.-Sept. 2002.

- **ABSTRACT**

1. **Sanusi, S.S.**, 1991. 'The Acacias in Nigeria: An update'. Association pour l'étude Taxonomique de la Flore l'Afrique Tropicale (A.E.T.F.A.T.). *Symposium 6-Mimosoideae*, Royal Botanic Gardens, Kew, UK.
2. Imam, M.M. and **Sanusi, S.S.**, 1975. 'Morphogenetic studies of *Manihot esculenta* Cranz after gamma irradiation'. Paper presented at the 9th Biennial Conference of the Ghana Sciences Association, University of Ghana, Legon-Accra, 23rd-27th March, 1975. *Ghana Science Abstracts Bull.*, 1(2), Jan./March, 1975.

XI. FACULTY OF SCIENCE SEMINAR SERIES

- **Published**

1. 'Globalization and Smallholder Agriculture' by **Sanusi S.S.** *A University of Maiduguri Occasional Publication*, 2: 27-30 (2005).
2. 'The Environmental Crisis: Human members or Human Systems?' by **Sanusi, S.S.** *A University of Maiduguri Occasional Publication*, 2: 1-3 (2005).
3. 'Environmental psychology: A new ethic in the man/nature relationships' by **Sanusi, S.S.** *A University of Maiduguri Occasional Publication*, 1: 37-40 (2000).

- **Unpublished**

'Ecosystem Engineers, Police and Sanitary Corps in the Balance of Nature' by **Sanusi, S.S.** *Faculty of Science Seminar Series No. 36*, presented 8th March, 2002.

XII. COMMUNITY SERVICES

1. 'Potentials of neem tree': Healthy Living/**Sunday Trust**, vol. 2(28): 22. March 23, 2008.
2. 'Salvaging the Lake Chad': Special Feature/**Sunday Trust**, vol. 2(38): 18-20. June 1, 2008
3. Identification of Plants for Staff, Research and Project students, Maiduguri.

XIII. CONSULTANCY SERVICES

1. **Member:** Federal Ministry of Environment Technical Review Panel on the Environmental Impact Assessment (EIA) Report of the Proposed Petroleum Tank Farm at Apapa, Lagos by Cottoil Nig. Ltd., 13th – 14th February, 2009.
2. **Member:** Federal Ministry of Environment Technical Review Panel on the Draft Environmental Impact Assessment (EIA) Report of the Proposed Petroleum Tank Farm at Apapa, Lagos by Cottoil Nig. Ltd., 29th – 31st August, 2007.
3. **Taxonomist:** Medicinal Plants (North-East & North-West Nigeria) Project with Nigeria Natural Medicine Development Agency, Federal Ministry of Science & Technology, Lagos, Nigeria
4. **Resource Person:** 'SUDAN SAHEL LINK', Matawalle Street, Misau, Bauchi State on the Local Empowerment and Environmental Management Project (LEEMP), Since May 2005.
5. **Member:** Borno State Environmental Protection Agency (BOSEPA) Review Panel on EIA: Nigerian Bottling Company (NBC) Effluent Treatment Plant (ETP), Maiduguri, 15th October, 2002.

XIV. ON-GOING RESEARCH AREAS

1. Biodiversity study of Sambisa Game Reserve, Borno State, Nigeria.
2. Taxonomy, nomenclature and ecology of Mimosaceae, with special reference to *Acacia*.
3. Gum Arabic Project with the Centre for Arid Zone Studies (CAZS), University of Maiduguri on identification of gummiiferous species, tapping, sorting, cleaning and grading of gum in Northern Nigeria
4. Ethnobotanical studies: Medicinal plants and Anecophytes.

5. Environment Studies: Pollution, Natural Resources Management
6. Environmental Impact Assessment (EIA)

Prof. S.S. Sanusi
17th Sept. 2012

Contact Address:

Dept. of Biological Sciences/Faculty of Science/Univ. of Maiduguri/PMB 1069/Maiduguri/Nigeria.

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Luthando Dziba Curriculum Vitae

Dr. Luthando Dziba

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QUALIFICATIONS

- | | |
|---|-------------|
| 1. PhD (Rangeland Science), Utah State University, Logan, Utah, USA. | 2004 |
| 2. MSc Agric (Animal Science), University of Fort Hare, Alice, South Africa. | 2000 |
| 3. BSc Agric (Animal & Pasture Science), University of Fort Hare, Alice, SA. | 1998 |

GENERAL WORK EXPERIENCE

<i>Position</i>	<i>Department, Institution</i>	<i>Period Employed</i>
Acting RGL	Biodiversity and Ecosystem Services, CSIR	Aug 2012 (2 months)
Principal Researcher	Biodiversity and Ecosystem Services, CSIR	Feb 2011 – current
Senior Researcher	Biodiversity and Ecosystem Services, CSIR	Aug 2010 – Jan 2011
Senior Manager	Rangelands and Nutrition, ARC	Jan 2010 – Jul 2010
Acting Senior Manager	Rangelands and Nutrition, ARC	Jul 2009 – Jan 2010
Program Manager	Rangelands and Nutrition, ARC	Jan 2009 – Jan 2010
Senior Researcher	Rangelands and Nutrition, ARC	Jul 2005 – Dec 2008
Post-doctoral Fellow	Department of Wildland Resources, USU	Jan 2005 – Jun 2005
Lecturer	Department of Wildland Resources, USU	Aug 2002 – Dec 2002
Research Assistant	Department of Wildland Resources, USU	Aug 2000 – Dec 2004

CSIR – Council for Scientific and Industrial Research, South Africa

ARC – Agricultural Research Council, South Africa

USU – Utah State University, United States of America

EXPERIENCE IN THE BIODIVERSITY SECTOR

I am currently a Principal Scientist in the Biodiversity and Ecosystem Services Research Group responsible for research on impacts of climate change and land cover change (especially woody plant encroachment) on biodiversity and ecosystem services, ecosystem based adaptation to climate change, the role of ecosystem services in poverty alleviation, and mainstreaming ecosystem services into planning and policy. My research background is in plant-herbivore ecology, where I contributed to improved understanding of mechanisms of herbivore diet selection and its impacts on landscape biodiversity. I also co-lead a UNEP GEF funded project on that aims to integrate ecosystem services into policy and planning, called ProEcoServ (www.proecoserv.org), which is piloted in Chile, South Africa, Trinidad and Tobago and Vietnam.

I have been involved with the processes leading to the establishment of the Intergovernmental Science Policy Platform on Biodiversity and Ecosystem Services in Panama in April 2012, including support to the head of delegation of South Africa's Department of Environmental Affairs. I am, therefore, very familiar with the work programme of IPBES and other aspects of its operationalization. I have also represented South Africa in several high level expert delegations including an EU Summit on the "Dialogue between Europe and its Southern partners on Agricultural Research and Climate Change" held in Brussels, 16-17 Dec 2009, Southern African Science Service Centre for Climate Change and Adapted Land Use (SASSCAL) held in Lusaka and Windhoek in 2011. I participated at the International Workshop on the Programme on Ecosystem Change and Society (PECS) hosted by the Stockholm Resilience Centre in Stockholm and the Nobel Symposium on Global Sustainability also held in Stockholm in May 2011 amongst others. I am a member of the Advisory Board of the Centre for African Conservation Ecology at Nelson Mandela Metropolitan University, serve on the National Member Organization Committee to the International Institute for Applied Systems Analyses (IIASA). I am a reviewer of the 2011 UNEP's Bridging the Gap Report on Global Emissions.

Locally, I have also been involved with strategic leadership within the Natural Resources and the Environment Division of the CSIR as a member of the Research Advisory Panel with several responsibilities including annual review of parliamentary grant funded projects, development of research growth and impact strategy and in strategic engagements with stakeholders. I helped to develop the ecosystem services and livelihoods theme in the Applied Centre for Climate and Earth Systems Science (ACCESS), a national program for Global Change research. I was recently appointed Research Manager for Ecosystem Services at the CSIR with responsibility to lead three research groups including Biodiversity and Ecosystem Services, Earth Observation and Coastal Systems. I have also served on several national working groups and committees in the fields of biodiversity, agriculture and climate change such as the Land Cover Change Consortium.

SCIENTIFIC COMMUNITY SERVICE

2011 – present	Reviewer of UNEP's Bridging the Gap Report on Global Emissions
2011 – present	Member of the Research Advisory Panel at the CSIR Natural Resources and the Environment Division
2011 – present	Deputy Chair of the South African Land Cover Change Research Consortium
2011 – present	National Committee Member for the International Institute for Applied Systems Analyses (IIASA)
2008 – present	Advisory Board Member, Centre for African Conservation Ecology at Nelson Mandela Metropolitan University
2005 – present	Associate Editor of the African Journal of Range and Forage Science
2008 – 2010	Member of various ARC Bid Specification and Bid Evaluation Committees
2007 – 2010	Member of the ARC Animal Production Institute's Research Management Committee
2007 – 2008	Member of the Joint Allocations Committee of the Grassland Society of Southern Africa Trust
2006 – 2010	Member of the National Livestock Working Group reporting to the National Department of Agriculture, Fisheries and Forestry

OTHER SIGNIFICANT ASSIGNMENTS

1. Science advisor to the Head of South African Delegation to the negotiations for the establishment of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) in Panama in April 2012.
2. Theme leader of the Ecosystem Services and Livelihoods Theme for the Applied Center for Climate and Earth Systems Science (ACCEESS) (2011 to present).
3. Honorary lecturer at the University of KwaZulu-Natal's School of Biological Sciences (2010 to current).
4. Served three terms in the Executive Council of the Grassland Society of Southern Africa between 2005 and 2008.
5. Appointed by the Minister of Agriculture, Fisheries and Forestry (DAFF) to the Executive Council of the National Agricultural Education and Training Forum from May 2008 to September 2009.
6. Part of the South African delegation of experts to the "Dialogue between Europe and its Southern partners on Agricultural Research and Climate Change" held in Brussels, 16-17 Dec 2009.
7. Keynote speaker at the workshop on "Implications of land use change and carbon dioxide enrichment for vegetation dynamics" held in Cape Town, South Africa in October 2010
8. Keynote speaker at the International Savanna Network Meeting held at the Kruger National Park, Skukuza, South Africa in March 2011.

9. Member of the South African delegation of experts to a workshop on Regional Science Service Center for Climate Change Research (SASSCAL) held in Lusaka, Zambia in Feb 2011 and in Windhoek, Namibia in September 2011.

FELLOWSHIPS AND AWARDS

1. Fellowship at the Stellenbosch Institute for Advanced Studies to further collaboration with colleagues from the Stockholm Resilience Center in February 2012 funded by the Wallenberg Foundation.
2. Fellowship at the Stockholm Resilience Center in Sweden to collaborate on research on Ecosystem Services and Poverty Alleviation in May 2011 funded by the National Research Foundation (NRF) and the CSIR.
3. Awarded an NRF Rating: Y Rated (Promising Young Researcher) (valid from 2009 – 2014).
4. Visiting Scientist at Langston University, Oklahoma State University, and Utah State University in October 2006.
5. Best Presentation by a Young Scientist. Annual Congress of the Grassland Society of Southern Africa held at Port Shepstone. July 2005.
6. Post Doctoral Fellowship. Utah State University, Logan UT, USA. Jan 2005 – June 2005 by the United States Department of Agriculture' Initiative for Future Agricultural and Food System Project (IFAFS) # 2001-52103-11215.
7. South Africa/USA bilateral PhD Scholarship. Utah State University, Logan UT, USA. 2000-2004 funded under provisions of the South Africa-USA Bilateral Agreement.
8. Exchange student at Macauley Land Use Research Institute and University of Edinburgh, Scotland, in April-May 1999 funded by the University of Fort Hare and University of Edinburgh Exchange Program.

STUDENT SUPERVISION/CO-SUPERVISION

Current Students

Student name	Degree	Institution	Completion	Other supervisors
Ntuthuko Mkize	PhD	University of Wageningen	Aug 2014	Prof Herbert Prins
Lutendo Mugwedi	PhD	University of Witwatersrand	Dec 2014	Dr Barend Erasmus
Julius Tjelele	PhD	University of KwaZulu-Natal	Jun 2013	Prof David Ward
Basanda Nondlazi	MSc	University of Witwatersrand	Dec 2013	Dr Sally Archibald
Hosia Pule	MSc	University of Pretoria	Dec 2012	Dr Wayne Truter
Thozamile Yapi	MSc	University of Stellenbosch	Dec 2012	Prof Karen Esler
Sicelo Dlodla	MSc	University of Zululand	Dec 2011	Prof Peter Scogings
Ntuthuko Mkize	MSc	University of Zululand	Dec 2008	Prof Peter Scogings

PUBLICATIONS

Journal Articles:

1. Reyers B., Tengö M., Peterson G., Biggs R., Dziba L. and Gordon L. In prep. A resilience perspective on the role of ecosystem services in poverty alleviation. *Frontiers in Ecology and the Environment*
2. Dziba L.E., Archibald S., Biggs R., Reyers B. In prep. Impacts of bush encroachment on ecosystem services – options out of a quandary in the context of climate change. *Ecosystems*
3. Pule HT, Dziba LE, Truter W. In prep. Ecological niche separation of *Dichapetalum cymosum* (gifblaar) on South African rangeland communities. *Rangeland Ecology and Management*
4. Tjelele T.J., Ward D., Dziba L.E.. In prep. Effects of animal species, diet quality and seed size *Dichrostachys cinerea* and *Acacia Nilotica* seeds fed to goats. *J Applied Ecology*.
5. Mkhize NR, Scogings PF, Dziba LE, Nsahlai IV. Submitted. Seasonal variations in chemical and physical traits of six plant species influence foraging efficiency of goats in pens. *African Journal of Range & Forage Science*
6. Basha N.A.D., Scogings P.F., Dziba L.E. and Nsahlai I.V. 2012. Diet selection of Nguni goats in relation to season, chemistry and physical properties of browse in sub-humid subtropical savanna. *Small Ruminant Research* 102:163-171.
7. Tjelele T.J., Dziba L.E. and Pule H.T. 2012. Germination potential of *Dichrostachys cinerea* seeds fed to goats (*Capra hircus*). *Rangeland Ecology and Management* 65: 105-108.
8. Mkhize NR, Scogings PF, Dziba LE, Nsahlai IV. 2011. Seasonal variations in chemical and physical traits of six plant species influence foraging efficiency of goats in pens. *African Journal of Range & Forage Science* 28:29-34.
9. Dziba L.E., Provenza F.D., J.O. Hall. 2009. Responses of lambs to camphor highlight opportunities for management of savannas. *Options Méditerranéennes* 85:191-196.
10. Papachristou T.G, Dziba L.E., Villalba J.J. and Provenza F.D. 2009. Intake patterns of sheep offered nutritious alternatives associated with plant secondary compounds. *Options Méditerranéennes* 85:25-29.
11. Manteca X., Provenza F.D., J.J. Villalba, S.B. Atwood, L.E. Dziba. 2008. Is diet choice important to animal welfare? *The Journal of Veterinary Behaviour* 3: 229-239.
12. Dziba L.E. and Provenza F.D. 2008. Dietary monoterpene concentrations influence feeding patterns of lambs. *Applied Animal Behavior Science* 109: 49–57.
13. Dziba L.E., Provenza F.D., J.J. Villalba and S.B. Atwood. 2007. Influence of terpenes and nutritional supplementation on intake of sagebrush by sheep. *Small Ruminant Research* 69: 203-207.
14. Papachristou T.G, Dziba L.E., Villalba J.J. and Provenza F.D. 2007. Patterns of diet mixing by sheep offered foods varying in nutrients and plant secondary compounds. *Applied Animal Behavior Science* 108: 68–80.

15. Dziba L.E., J.O. Hall and Provenza F.D. 2006. Feeding behavior of lambs in relation to kinetics of 1,8-cineole dosed intravenously and into the rumen. *Journal of Chemical Ecology* 32:391-408.
16. Papachristou T.G, Dziba L.E. and Provenza F.D. 2005. Foraging ecology and nutrition of small ruminants. *Small Ruminant Research* 59: 141-156.
17. Kimball B.A., L.E. Dziba, J.J. Johnson and F.D. Provenza. 2004. Chromatographic analysis of sagebrush monoterpenes in blood plasma. *Journal of Chromatographic Science* 42: 245-249.
18. Scogings P., L.E. Dziba and I. Gordon. 2004. Leaf chemistry of woody plants in relation to season, canopy retention and goat browsing in a semiarid subtropical savanna. *Austral Ecology* 29: 278-286.
19. Dziba L.E., P.F. Scogings, I.J. Gordon and J.G. Raats. 2003. Effects of plant species, season and breed on intake rates and diet selection by goats in the False Thornveld of the Eastern Cape, South Africa. *Small Ruminant Research* 47: 17-30.
20. Dziba L.E., P.F. Scogings, I.J. Gordon and J.G. Raats. 2003. The feeding height preferences of 2 goat breeds fed *Grewia Occidentalis* L. (tiliaccae) in the Eastern Cape, South Africa. *Small Ruminant Research* 47: 31-38.
21. Provenza F.D., J.J. Villalba, L.E. Dziba, S.B. Atwood, R.E. Banner. 2003. Linking herbivore experience, varied diets, and plant biochemical diversity. *Small Ruminant Research* 49: 257-274.

Book Chapter:

22. Hardy M, Dziba L.E., Kilian W., and Tolmay J. 2011. Rainfed Farming Systems in South Africa. In: Tow, P.G., Cooper, I.M., Partridge, I, and Birch C.J. (Editors) "Rainfed Farming Systems" Springer, Dordrecht Netherlands.

Conference Proceedings:

1. Pule H G, Truter W F and Dziba L E 2011. Seasonal flowering phenology amongst common plant species in *Dichapetalum cymosum* (gifblaar) communities. 46th Annual Congress of the Grassland Society of Southern Africa. Middelburg Eastern Cape.
2. Mkhize NR, de Boer FW, Heitkonig IMA, Scogings PF, Dziba LE, Prins HHT. 2011. Biochemical Links between plants and large herbivores: Consequences for browse utilization and animal productivity (a proposal). Proceedings of the 46th Annual Congress of the Grassland Society of Southern Africa. Pp. 81. Middelburg, Eastern Cape province of South Africa.
3. Dziba L.E. 2011. Ecosystem based adaptation to climate change: applications to South Africa's Rangelands. COP17, Durban, South Africa.
4. Tjelele T.J, Ward MD, Dziba LE. 2010. The effect of diet, goats and seed characteristics on seed recovery of *Dichrostachys cinerea* and *Acacia nilotica* seeds. Annual Congress of Grassland Society of Southern Africa. Kimberly, South Africa.

5. Pule H G , Truter W F and Dziba L E 2010. Ecological niche separation of *Dichapetalum cymosum* (gifblaar) on South African rangeland communities. Proceedings of the All Africa Conference on Animal Agriculture. Ethiopia.
6. Pule H G, Truter W F and Dziba L E 2010. Ecological niche separation of *Dichapetalum cymosum* (gifblaar) on South African rangeland communities. 45th Annual Congress of the Grassland of Southern Africa. Kimberley, Northern Cape.
7. Dziba L.E. 2009. Can rangelands be managed concurrently for livestock and improved water production? Biennial Landcare Conference. Polokwane, South Africa.
8. Dziba L.E. 2008. Managing rangelands for water – the ultimate breakthrough? Annual Congress of the Grassland Society of Southern Africa. Badplaas, South Africa.
9. Scogings PF, T Rooke, L.E Dziba, D Hattas, H.C Eckhardt, C Skarpe, A Zobolo and J Hjältén. 2008. Responses of trees to herbivory at the Nkulu exclosures, Kruger Park. Annual Congress of the Grassland Society of Southern Africa. Badplaas, South Africa.
10. Mkhize N.R., Scogings P.F., Dziba L.E. and Nsahlai I.V. 2008. Short-term intake rates and diet selection of browsers in a sub- humid subtropical savanna. Annual Congress of the Grassland Society of Southern Africa. Badplaas, South Africa.
11. Peel M.J.S., Dziba L.E., Peel J.M.H., Jacobs A.F., Rabothata C. and Keromecwe O. 2008. The National Rangeland Monitoring Programme: Progress in the Lowveld protected areas? Annual Congress of the Grassland Society of Southern Africa. Badplaas, South Africa.
12. Tjelele J.T., Dziba L.E. and Pule H.T. 2008. Germination potential of dispersed seeds of *Dichrostachys cinerea* by goats (*Capra hircus*). Annual Congress of the Grassland Society of Southern Africa. Badplaas, South Africa.
13. Dziba L.E., Provenza F.D., Hall, J.O. 2007. Responses of lambs to camphor highlight opportunities for management of savannas. 12th FAO-CIHEAM Seminar on Sheep and Goat Nutrition, Thessaloniki, Greece.
14. Dziba, L.E., Manteca X.V., Provenza F.D. 2007. Behavioural and physiologic responses of herbivores to phytochemical defence. Annual Congress of the Grassland Society of Southern Africa. Grahamstown, South Africa.
15. Scogings, P.F, Rooke, T., Dziba, L.E., Hattas, D., Eckhardt, H., Skarpe, C., Zobolo, A. & Hjältén, J. 2007. Variations in N, fibre and phenols of trees in relation to resources and browsing at the Nkuhlu Exclosures, Kruger National Park: 2005/2006. Kruger National Park Annual Network Meeting, Skukuza, South Africa.
16. Dziba L.E. 2006. Challenges for application of animal behavior principles to management of South African Rangelands. BEHAVE International Symposium. Midway, Utah, USA.
17. Dziba L.E. 2006. Development of a National Rangeland Monitoring Programme for South Africa. Annual Congress of the Grassland Society of Southern Africa. Bela Bela, South Africa.
18. Scogings PF, T Rooke, L E Dziba, D Hattas, H C Eckhardt, C Skarpe, A Zobolo and J Hjältén. 2006. Plant defences among selected woody species in an Acacia-Combretum savanna:

- Conceptual Framework. Annual Congress of the Grassland Society of Southern Africa. Bela Bela, South Africa.
19. Papachristou, T.G., L.E. Dziba, J.J. Villalba and F.D. Provenza, 2005. Intake patterns of sheep offered nutritious alternatives associated with plant secondary compounds. *In: Advanced Nutrition and Feeding Strategies to improve Sheep and Goat production. 11th Seminar of the FAO-CIHEAM Sub-Network on Sheep and Goat Nutrition, University of Catania, Catania, Italy.*
 20. Dziba L.E. 2005. Kinetics of plant secondary compounds: influences on feeding behavior of herbivores and diversity of rangelands. Annual Congress of the Grassland Society of Southern Africa. Port Shepstone, South Africa.
 21. Dziba L.E., F.D. Provenza, J.O. Hall and J.J. Villalba. 2005. Kinetics of sagebrush monoterpenes influence feeding behavior of sheep. Proceedings of the VII International Symposium on Poisonous Plants. Logan, UT, USA.
 22. Dziba L.E., F.D. Provenza and J.O. Hall. 2004. Elimination rates of sagebrush monoterpenes influence feeding behavior of lambs. Annual Meeting of the Society for Range Management, Salt Lake City, Utah, USA.
 23. Dziba L.E., F.D. Provenza, J.J. Villalba and S.B. Atwood. 2003. Influence of macronutrients on intake of sagebrush by sheep: consequences for rangeland diversity. Proceedings of the VII International Rangelands Congress, Durban, South Africa. *African J. Range and Forage Sci.* Vol. 22: 83.
 24. Atwood S.B., F.D. Provenza, R. Banner, K. Olson, J.J. Villalba and L.E. Dziba. 2003. The myth of the finicky cat: The role of dietary variety in animal welfare. Annual Meeting of the International Society for Applied Ethology, Abano Terme, Italy.
 25. Scogings P.F., L.E. Dziba and I.J. Gordon. 2003. Forage quality of savanna browse in relation to intake rates of goats in the False Thornveld of the Eastern Cape, South Africa. *Proc VII International Rangelands Congress, Durban, South Africa. African J. Range and Forage Sci.* Vol. 22: 143.
 26. Dziba L.E. and F.D. Provenza. 2002. Effects of terpene concentrations on food intake by sheep. Annual Meeting of the Society for Range Management, Kansas City, Missouri, USA.
 27. Dziba L.E., P.F. Scogings, J.G. Raats and I.J. Gordon. 1999. Seasonal intake of six savanna woody plant species by goats in the Eastern Cape Province of South Africa. *In: Eldridge D. and Fruedenburger D. (eds). People and Rangelands: building the future. Proceedings of the VI International Rangelands Congress. Vol. 1: 517-518. Townsville, Australia.*
 28. Dziba L.E., P.F. Scogings and J.G. Raats. 1999. Species selection and intake rates of Boer goats and indigenous goats in cafeteria-style experiments. Annual Congress of the Grassland Society of Southern Africa. Warmbaths, South Africa.
 29. Dziba L.E. and J.G. Raats. 1998. The feeding behavior of Ciskei indigenous goats in a semi-arid savanna. Annual Congress of the South African Society of Animal Science. Stellenbosch, South Africa.

Curriculum Vitae (shortened South Africa)

Personal details:				
Full Name:	DR	ALBERT	S.	VAN JAARSVELD
Present Position:	Chief Executive Officer			
Organisation / Employer:	National Research Foundation			
Contact Address:	NRF, PO Box 2600, Pretoria, 0001, South Africa			
Email:	albert@nrf.ac.za			

Professional positions held

<u>Duration:</u>	<u>Position:</u>
2009-present	President and CEO of the National Research Foundation, South Africa
2007-2009	Vice-President and MD RISA, National Research Foundation, RSA
2002-2006	Dean, Faculty of Science, Stellenbosch University, RSA
2002-2003	Adjunct Professor, Environmental Studies Programme, Dartmouth College, Hanover, USA
1999-2002	Director: Centre for Environmental Studies, University of Pretoria, RSA
1998-2002	Professor of Zoology, University of Pretoria, RSA
1996-1997	Associate Professor : Zoology, University of Pretoria, RSA
1987-1995	Lecturer: Zoology, University of Pretoria, RSA

Qualifications and training

<u>Year:</u>	<u>Qualification:</u>
1981	BSc (Botany and Zoology), University of Pretoria, RSA
1982	BSc Hons, Cum laude (Mammalogy), University of Pretoria, RSA
1990	PhD (Zoology) University of Pretoria, RSA
2012	Advanced Management Programme, Harvard University, Boston, USA

Present research / professional speciality

Ecosystem services monitoring and measurement, biodiversity assessment, global change, research performance assessment

Total years research experience

28 years

Professional distinctions and memberships (including honours, prizes, scholarships, boards or governance roles, etc.)

- Member of the Academy of Sciences for South Africa (ASSAf)
- Co-recipient – Zayed International Prize for the Environment (Millennium Assessment)
- Fellow of the Royal Society of South Africa
- Centenary medal for a distinguished career in research, teaching and leadership from the SA Akademie
- Vice-Chancellors award for Research Excellence (Stellenbosch University)
- Gold medal from the Zoological Society of southern Africa
- Chancellor's Award for Excellence in Tuition and Learning (University of Pretoria)
- Outstanding Academic Achiever award (University of Pretoria)
- President: Zoological Society of southern Africa
- Member: ICSI Nominations Committee

- Chair: G8+O5 Science Ministers' Group of Senior Officials Meeting on Global Research Infrastructures
- Co-Chair: Belmont Forum

Total number of peer reviewed publications and patents	Journal articles	Books, book chapters, books edited	Conference proceedings	Patents
	109	5	9	-

Summary of activities relating to biodiversity and environment

Co-Chair MA Follow-up: International Sub-global Assessment (UNEP, UNDP), 2008-2010; (<http://www.millenniumassessment.org>). Our role was to ensure the continued role out of the MA sub-global assessments, to strengthen their role and impact in potential future global assessments and to provide a nurturing environment and necessary facilitation for the development of new sub-global assessments from around the globe.

Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES): Appointed key science focal point for South Africa in first preparatory workshop to develop a science work programme for IPBES, Japan (June 2011).

IPBES Plenary meeting representative (IPBES): Nominated ICSU delegate to IPBES First Plenary meeting, Nairobi (October 2011).

Co-Chair Belmont Forum: The Belmont Forum comprises a group of international funding agencies committed to funding step-changing initiatives in the area of global change (April 2012).

Advisory Panel member: Sub-Global Assessment Network, UNEP World Conservation Monitoring Centre, Cambridge, UK (from June 2010).

Chairperson of the South African Environmental Observation Network: (SAEON) Advisory Board for 4 years. This national initiative which focuses on the development of a National Research platform with an annual budget of R 15 million is aimed at supporting long-term Environmental and Ecological monitoring and research. This initiative has now matured, achieved the required national buy-in and has been funded by DST since 2003 as a potential national facility. This facility was launched by the NRF in 2002 ([SAEON — Saeon](#)).

Council member of the South African Council for Natural and Scientific Professions: Served as Chairperson for the Zoological Sciences Professional Advisory Committee (PAC) for three years, and on the Environmental Sciences PAC for 2 years ([The South African Council for Natural Scientific Professions](#)).

Regional Coordinator for the Southern African Millennium Ecosystem Assessment project: This international study was conducted at global, regional and local scales and was the first global ecosystem goods and services assessment aimed at improving human environmental management. The assessment was funded by UNEP/GEF and was conducted in collaboration with the World Resources Institute (Washington). The Southern African component of the work generated a number of reports. I also acted as a Contributing Lead Author for one of the chapters produced in the MA sub-global Assessments report and as a contributor to the Biodiversity Synthesis report (<http://www.millenniumassessment.org/en/index.aspx>).

Relevant research publications and dissemination (selected peer reviewed articles from 2003)

- Olwoch, J, Reyers, B. & **van Jaarsveld, A.S.** (2009). Host-parasite distribution patterns under simulated climate: implications for tick-borne diseases. *International Journal of Climatology* 29: 993-1000.
- Egoh, B., Reyers, B, Rouget, M., Richardson, D.M., le Maitre, D.C., van Jaarsveld, A.S. (2008). Mapping ecosystem services for planning and management. *Agriculture, Ecosystems and Environment* 127: 135-140.
- Egoh, B., Rouget, M., Reyers, B., Knight, A.T., Cowling, R.M., **van Jaarsveld, A.S.**, Welz, A. (2007). Integrating ecosystem services into conservation assessments: a review. *Ecological Economics* 63: 714-721.
- Bohensky, E. L., Reyers, B. & **van Jaarsveld, A.S.** (2006) Future Ecosystem Services in a Southern African River Basin: a Scenario Planning Approach to Uncertainty. *Conservation Biology* 20, 1051-1061.

- Gitay, H., Raudsepp-Hearne, C., Blanco, H., Gracia, K., Pereira, H.M., Biggs, R., Filer, C., Gokhale, Y., Kok, K., Mosvoto, C., Patwardan, A., **van Jaarsveld, A.S.**, Watson, R.T. (2005). Assessment process. In: *Ecosystems and Human Well-being: Multiscale Assessments* (eds Capistrano, D., Samper, C.S., Lee, M.J., Raudsepp-Hearne, C., Chapter 6, pp. 119-140. Island Press, Washington, USA.
- Zermoglio, M.F., **van Jaarsveld, A.S.**, Reid, W.V., Romm, J. (2005). The multiscale approach. In: *Ecosystems and Human Well-being: Multiscale Assessments* (eds Capistrano, D., Samper, C.S., Lee, M.J., Raudsepp-Hearne, C., Chapter 4, pp. 61-83. Island Press, Washington, USA.
- Keith, M., Chimimba, C.T., Reyers, B. & **van Jaarsveld, A.S.** (2005) Taxonomic and phylogenetic distinctiveness in regional conservation assessments: a case study based on extant South African Chiroptera and Carnivora. **Animal Conservation** 8: 279-288.
- **van Jaarsveld, A.S.**, Biggs, R., Scholes, R.J., Bohensky, E., Reyers, B., Lynam, T., Msuvuto, C. & Fabricius, C. (2005). Measuring conditions and trends in ecosystem services at multiple scales: the Southern African Millennium Ecosystem Assessment (SAfMA) experience. **Phil Trans. R. Soc., B.** 360: 425-441.
- Paul, I., **van Jaarsveld, A.S.**, Korsten, L. & Hattingh, V. (2005). The potential global geographical distribution of Citrus Black Spot caused by *Guignardia citricarpa* (Kiely), with emphasis on the likelihood of disease establishment in the European Union. **Crop Protection** 24: 297-308.
- Balmford, A., Bunnell, L., ten Brink, B., Cooper, D., Côté, I.M., Crane, P., Dobson, A., Dudley, N., Dutton, I., Green, R.E., Gregory, R.D., Harrison, J., Kennedy, E.T., Kremen, C., Leader-Williams, N., Lovejoy, T.E., Mace, G., May, R., Mayaux, P., Morling, P., Philips, J., Redford, K., Ricketts, T.H., Rodriguez, J.P., Sanjayan, M., Schei, P.J., **van Jaarsveld, A.S.**, Walther, B.A. (2005). The convention on biological diversity's 2010 target. **Science** 307: 212-213.
- Tosh, C., Reyers, B. & **van Jaarsveld, A.S.** (2004). Estimating the abundances of large herbivores in the Kruger National Park using presence-absence data. **Animal Conservation** 7: 55-61.
- Thomas, C.D., Cameron, A., Green, R.E., Bakkenes, M., Beaumont, L.J., Collingham, Y.C., Erasmus, B.F.N., Ferriera de Siqueira, M., Grainger, A., Hannah, L., Hughes, L., Huntley, B., **van Jaarsveld, A.S.**, Midgley, G.F., Miles, L., Ortega-Huerta, M.A., Peterson, A.T., Philips, O. & Williams, S.E. (2004). Extinction risk from climate change. **Nature** 427: 145-148
- van Staden, V., Erasmus, B.F.N., Roux, J. Wingfield, M.J. & **van Jaarsveld A.S.** (2004) Modelling the spatial distribution of two important South African plantation forestry pathogens. **Forest Ecology and Management** 187: 61-73.
- Chown, S.L., van Rensburg, B.J., Gaston, K.J., Rodrigues, A.S., and **van Jaarsveld, A.S.** (2003). Energy, species richness and human population size: conservation implications at a national scale. **Ecological Applications** 13: 1233-1241.
- Solomon, M., **van Jaarsveld, A.S.**, Biggs, H.C. & Knight, M.H. (2003). Conservation targets for "viable" species assemblages? **Biodiversity and Conservation** 12: 2435-2441.
- de Villiers, M.S., Richardson, P.R.K. & **van Jaarsveld, A.S.** (2003). Patterns of coalition formation and spatial association in a social carnivore, the African wild dog *Lycaon pictus*. **Journal of Zoology, London** 260: 377-389.
- Olwoch, J.M., Rautenbach, C.J. de W., Erasmus, B.F.N., Engelbrecht, F.A. & **van Jaarsveld, A.S.** (2003). Simulating tick distributions over sub-Saharan Africa: the use of observed and simulated climate surfaces. **Journal of Biogeography** 30: 1221-1232.
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CURRICULUM VITAE CARMEL HELENE MBIZVO

PERSONAL DETAILS

Name: Carmel Helene Mbizvo
Tel: 012 843 5259
Mobile: 072 385 0030
E-mail: c.mbizvo@sanbi.org.za

Date of birth: March 11, 1959
Place of birth: Durban, South Africa
Sex: Female
Marital status: Married with one child
Maiden Name: Lue
Citizenship: South African
Identification Number: 5903110654084

SUMMARY OF QUALIFICATIONS AND EXPERIENCE

I have over 20 years of experience in the environment sector and hold an MSc Sociology/Social Anthropology degree. My experience ranges from policy development to research management and capacity building. Working in government, research and international institutions has greatly increased my understanding of the science policy interface and given me the valuable opportunity to engage directly with various international scientific and policy processes (e.g. IPBES, EU FP7, IUCN and CBD).

I have good knowledge of the main elements of the IPBES Programme of Work through my participation in the development of the platform and was a member of the South African Government delegation to Nairobi and Panama. My participation in both the workshop on policy support through relevant tools and methodologies (Bonn), and the workshop to explore the programme of work of IPBES, with a particular focus on the generation of knowledge component (Annapolis), has been beneficial.

I am currently employed by the South African National Biodiversity Institute as Head of Biodiversity Research, Policy and Knowledge Management where I am responsible for biodiversity policy, research and information management, institutional partnerships and human capital development.

Between 2005 and 2009, I worked for CSIR Natural Resources and the Environment (NRE), where I worked on initiatives to strengthen the science policy interface and co-authored a journal article on Bridging the Science Policy Interface (see list of publications). I managed CSIR's Ecosystems research portfolio that included: Biodiversity and Ecosystems Services; Earth Observation; and Ecosystems Processes and Dynamics. During this time, I honed my skills in strategic direction and business leadership; human capital management and development; financial management; negotiation and securement of contracts; and development and management of client and stakeholder relationships.

Prior to joining the CSIR, I was employed by IUCN (the World Conservation Union) for over eight years. I managed the regional environment policy programme for Southern Africa and was responsible for stakeholder engagement among government and non-governmental organisations; network management; coordination of programmes at community, national, regional and transboundary levels; capacity building projects; and securing and managing donor funding. I focused on policy development and social perspectives in natural resource management including the role of indigenous knowledge systems.

EDUCATION

1985 - 1986	University of Zimbabwe, M.Sc. Sociology/Social Anthropology
1982 - 1984	University of Zimbabwe, B.Sc. Sociology
1980 - 1981	University of Witwatersrand, B.A. (First Year)
1978	AFS Exchange Scholarship to USA, American High School Diploma
1976	St Marks High School, Swaziland, O Levels

TRAINING COURSES

2010	Introduction to the Neuro-Linguistic Programme (NLP), ISNS
2007	Leadership, BMT Dimensions
2007	"Face the Media" Workshop, BDG Communications
2007	Investment in Excellence, CILLA
2006	Financial Management Basics, CILLA
2006	Value Engineering presented, VM Services
2005	Project Management II presented, CSIR Learning and Development and Information Services (CILLA)
1998	Facilitation course on the Introduction to Metaplan Communication Method, MetaCom Zimbabwe with Metaplan Projekt – Forum Germany
1996	Project Management and Monitoring and Evaluation, German Technical Cooperation (GTZ)
1990	International Course on Energy Management in Small and Medium Scale Industries, University of Twente and Netherlands International Institute for Management

EMPLOYMENT PROFILE

2010 to present	Head: Research, Policy and Knowledge Management , South African National Biodiversity Institute (SANBI); Responsibilities include: Generation and dissemination of knowledge; networking and policy support; biodiversity human capital development; education, empowerment and awareness raising; strategic planning and implementation and leadership in strategic relationships
2009 - 2010	Head Knowledge, Policy & Network Management and Acting Head Biodiversity Research , SANBI; Responsibilities include: developing and strengthening the 'managed network' model, Biodiversity knowledge generation, collation and dissemination, human capital development, strategic plan development and implementation, leadership in strategic relationships and solving problems/overcoming challenges identified annually
2005 - 2009	Ecosystems Manager , Natural Resources and the Environment, CSIR. Responsibilities include provide strategic direction and business leadership to a large multidisciplinary team; human capital management and development; financial management; negotiation and securement of contracts; and development and management of client and stakeholder relationships.
2005	Consultant to Southern African Regional Poverty Network (SARP). Provide advice relating to the organisation's strategic planning process;

	programme design and management; monitoring and evaluation of policy impact; and fundraising.
1996 - 2004	<p>Regional Policy Programme Coordinator, IUCN - The World Conservation Union, Regional Office for Southern Africa (ROSA). Responsibilities include: strategic planning; management; coordination; monitoring; evaluation; fundraising and management of donor funds; promoting networking and partnerships among government and civil society organisations; facilitate policy dialogues for senior policy makers; coordinate regional (southern Africa) and national environmental policy development and implementation initiatives; and design and manage a range of capacity building initiatives.</p>
1995 - 1996	<p>Acting Regional Social Policy Services (RSPS) Coordinator, IUCN - The World Conservation Union, ROSA. Responsibilities include: lead the development and coordination of all social policy and indigenous knowledge related activities; develop and manage the RSPS programme and budget; and support the development and implementation IUCN's Programme for Southern Africa.</p>
1993 - 1995	<p>Head of Research and Consultancy Unit, ZERO Regional Network of Environmental Experts. Responsibilities include: manage the Research and Consultancy Unit; fund raise; coordinate research projects; promote networking; conduct socioeconomic research on issues relating to energy, environment, gender and small-scale enterprise development; and provide support to government on the district environmental action planning process.</p>
1993	<p>Interim Coordinator Research and Consultancy Unit, ZERO Regional Network of Environmental Experts. Responsibilities include: manage the Unit; fundraise; coordinate research projects; promote networking; and conduct socioeconomic research.</p>
1990 - 1993	<p>SADC Rural Industries Programme Coordinator, ZERO. Responsibilities include: manage the southern African programme; conduct research, coordinate country projects, write technical papers on community based rural industries; and donor liaison.</p>
1987 - 1989	<p>Development Researcher, ZIKEN International Consultants Achievements include:</p> <ul style="list-style-type: none"> • Course Coordinator for Workshop on Project Management and Planning for NORAD, Harare. • Part of a team of consultants that evaluated the Nutrition Improvement Programme in Matabeleland North and South for Bulawayo Churches Coordination Committee for Drought Relief. • Coordinator and Researcher on the compilation of the Zimbabwe Directory of Development Consultants for the Swedish International Development Authority, Harare. • Research with a journalist on African political science for a book.

BOARD, COMMISSION & COMMITTEE MEMBERSHIP

Previous and current memberships include:

- Community Technology Development Trust
- UNDP GEF Small Grants Programme National Steering Committee
- CIDA's Environmental Responsive Fund Project Review Committee
- Gender Focal Point, IUCN Regional Office for Southern Africa
- IUCN Commission on Environmental, Economic and Social Policy
- National Committee on the Convention on Biological Diversity
- CSIR Pension Fund Board of Trustees
- South African Biodiversity Information Facility
- ProEcoServe Steering Committee

TRAVEL

Angola, Australia, Burkina Faso, Botswana, Costa Rica, France, Germany, Holland, India, Kenya, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Norway, Panama, Philippines, Republic of Korea, Senegal, Swaziland, Switzerland, Tanzania, Thailand, Trinidad and Tobago, Uganda, Zambia, Zimbabwe

See ANNEX 1: PAPERS AND PUBLICATIONS

ANNEX 1: PAPERS AND PUBLICATIONS

Godfrey, L. Funke, N and Mbizvo, C. 2010. Bridging the science-policy interface. *Agenda: South African Journal of Science*, (5/6)

LUE MBIZVO, C.H. (Ed.) Promoting Water Demand Management from Local to Regional Level: Proceedings of Exchange Visit Seminar for Directors. IUCN The World Conservation Union. Harare, Zimbabwe, 2003

LUE MBIZVO, C. H. (Ed.) Assessment of Policy Formulation and Implementation Processes in Environment and Natural Resources Management in Southern Africa. IUCN The World Conservation Union. Harare, Zimbabwe, 2003.

JOHNSON, S. and LUE MBIZVO, C.H. (Eds.) Natural Resources Management: The Economic Force in Southern Africa. Proceedings of the Exchange Visit Seminar for Directors. SADC Wildlife Sector and IUCN The World Conservation Union. Held in Mangochi, Malawi in July 2000.

LUE MBIZVO, C.H. (Ed.) Proceedings of the Technical Information Sharing Workshop for the ZIMOZA Transborder Natural Resource Management (TBNRM) Initiative. IUCN The World Conservation Union. Held in Harare, Zimbabwe in April 2000

LUE MBIZVO, C.H. (ed.) Environment and Security: Workshop on Methodology and Awareness Raising. IUCN The World Conservation Union. Held in Harare, Zimbabwe in April 1999.

LUE MBIZVO, C. H. Resource Tenure and Internationalism. In SUI Technical Series Vol. 2: Tenure and Sustainable Use. Ed. James Ogelthorpe. IUCN The World Conservation Union, Gland and Cambridge, 1999.

JOHNSON, S. and Carmel Lue Mbizvo. (Eds.) CBNRM and its Contribution to Economic Development in Southern Africa. Proceedings of the Exchange Visit Workshop for Directors. SADC Wildlife Sector, Africa Resources Trust and IUCN The World Conservation Union. Held in Mahenye, Zimbabwe in June 1999.

LUE MBIZVO, C.H. and GUYEYA, E. (Eds.) Proceedings of the Transborder Natural Resource Management Workshop. IUCN The World Conservation Union. Held in Harare, Zimbabwe in August 1999.

MUTEFPA, F., MARONGWE, N., GUYEYA, E. and LUE MBIZVO, C. (Eds.) Enhancing Land Reforms in Southern Africa: Case Studies on Land Reform Strategies and Community Based Natural Resources Management. ZERO, Zimbabwe, 1998.

LUE MBIZVO, C.H. and MOHAMED, J. Local Level Natural Resource Management Project: Makoni District, Working Paper No.3. The Institutional and Legal Framework for Natural Resource Management. Stockholm Environment Institute and Regional Network of Environmental Experts (ZERO), Stockholm, 1993.

LUE MBIZVO, C.H. The Role of Women in Small-Scale Bread, Brick and Beer Industries in Rural Zimbabwe. ZERO, Zimbabwe, 1991.

LUE MBIZVO, C.H. Proceedings of the ZERO Workshop on Energy, Technology and Rural Industrial Development: Issues and Prospects. ZERO, Zimbabwe, 1991.

LUE, C.H. et al. Evaluation of the Nutrition Improvement Programme: Matabeleland North and South. Report prepared for Bulawayo Churches Coordination Committee for Drought Relief. Bulawayo. April 1989.

CURRICULUM VITAE

1. PERSONAL DATA

1.1	SURNAME	Machena
1.2	TITLE	Dr.
1.3	FORENAMES	Cecil
1.4	DATE OF BIRTH	3 rd July 1957
1.5	PLACE OF BIRTH	Zimbabwe
1.6	CITIZENSHIP AT BIRTH	Zimbabwean
1.7	NATIONALITY	Zimbabwean
1.8	GENDER	Male

2. ADDRESSES

2.1	PERMANENT ADDRESS	33 George Walker Rd, Hatfield Harare, Zimbabwe.
2.2	BUSINESS ADDRESS	33 George Walker road, Hatfield, Harare, Zimbabwe
2.3	CORRESPONDENCE ADDRESS	33 George Walker Rd, Hatfield, Harare, Zimbabwe

3. EDUCATION, QUALIFICATIONS AND PROFESSIONAL TRAINING

3.1 SECONDARY SCHOOL

1975 – 1976 Hartzel High School ‘A’ Level

3.2 UNIVERSITY

1977/78 – 1979/80	University of Ibadan Nigeria	B.Sci. (Honours) Zoology
1983	University of Zimbabwe	M.Sci. Tropical Resource Ecology
1989	University of Upsalla	PhD Aquatic Ecology

4. POSTGRADUATE EXPERIENCE AND EMPLOYMENT

4.1 DATES: November 2008 to date

4.2 JOB TITLE: Projects Manager, CAMPFIRE Association

4.3 BRIEF JOB DESCRIPTION

The Communal Areas Management Programme for Indigenous Resources (CAMPFIRE) is a national programme in Zimbabwe that was established with the primary purpose of helping rural communities to sustainably manage their natural and cultural resources, derive income from the resource and determine how the income would be utilized. As Projects Manager my responsibilities entail:

- (i) Coordinating all technical activities in the Programme.
- (ii) Assisting Rural District Councils with capacity building. At the moment I am developing a Manual for the CAMPFIRE Programme.
- (iii) Assisting Rural District Council to set up monitoring systems to strengthen conservation and development activities. The tool we are using is the Management Oriented Monitoring Systems (MOMS).
- (iv) Assessment of progress and challenges in the programme.
- (v) Providing advice on the resolution of the challenges with a focus on enhancing sustainability of the programme and enhanced delivery of benefits to producer communities.
- (vi) Fundraising.
- (vii) Coordinating the Zimbabwe National CBNRM Forum. The Forum was formed in April 2005 as an umbrella body for organizations involved in and those promoting community based natural resources management activities. The Forum is made up of 20 members who represent diverse backgrounds and these include Rural District Councils, local and international non-governmental organizations (NGOs), academic institutions, community based organizations (CBOs), Government departments and the private sector. The Forum adds value to CBNRM processes by creating synergy between members focusing on a common vision. The overall goal of the Forum is to promote community based natural resources management as.

4.4 DATES January 2007 to 2008

4.5 JOB TITLE Independent Consultant

4.7 BRIEF JOB DESCRIPTION

I was the Coordinator of the African Wildlife Consultative Forums (AWCF).

The AWCF is a network platform for Southern African countries that brings together Directors of Wildlife Conservation Departments as policy makers, Safari Operators involved in the business of trophy hunting, NGOs involved in conservation and donors. My work focused on:

- (i) Promoting the harmonisation of hunting standards and the monitoring of performance and evaluation between the countries.
- (ii) Developing regional conservation strategies for key hunted species such as the lion and giving technical support to member countries to develop national conservation strategies for the key species.
- (iii) Promoting appropriate policies for the sustainable use of wildlife and other natural resources and benefit sharing in the region.
- (iv) Lobbying for the opening of the markets for wildlife products at the global level. This is primarily within the framework of the CITES Convention.
- (v) Collating and disseminating information on hunting activities in the region.

4.8 DATES: January 1999 to December 2006

4.9 JOB TITLE Executive Director, Africa Resources Trust

4.10 BRIEF JOB DESCRIPTION

I was the executive Director of the Africa Resources Trust (ART) from January 1999 to December 2006. ART's mandate was to lobby the international community for the opening up markets for wildlife products such as ivory for the benefit of southern African communities. The marketing of wildlife products is the main source of income for the communities in southern Africa who are involved in community based natural resources management (CBNRM) Programmes.

As the Executive Director of the Africa Resources Trust (ART), my overall responsibility was to manage the organisation such that it met its goals and its vision to make a difference in the livelihoods of the local communities who are ART's main constituency. My main responsibilities covered:

- (i) Networking with policy makers, government institutions, NGOs, academics and media involved in environmental and development activities.
- (ii) Building the capacity of journalists through setting up and running environment reporting courses for them, as well as organising workshops, exchange visits and tours for them.
- (iii) Information collation and dissemination. This covered the production and dissemination of information through an electronic news bulletin (*the Africa Resources for Development*), newsletters, booklets, brochures, etc and theatrical presentations on important sustainable development issues. This also helped build a sufficient knowledge base at the local level to enable the community to make conservation choices and decisions.
- (iv) Monitoring international conventions and regional instruments that affect CBNRM in Southern Africa. Focus was on the CITES Convention and the Convention on Biological Diversity (CBD). Through this activity I positioned ART as a link between international and regional policy makers and community conservation activities on the ground. Through its information outreach programme and participation at international events, ART informed conventions and other processes of community experiences on the ground. Equally ART informed communities of international processes and decisions.

- Policy research and analysis. ART has expertise and a track record in advocating policy change especially in the field of tenure of natural resources.

ART also monitors international conventions and regional instruments that affect CBNRM in Southern Africa. The justification is that the organisation forms a link between international and regional policy makers and community conservation activities on the ground. Through its information outreach programme and participation at international events, ART informs conventions and other processes of community experiences on the ground. Equally ART informs communities of international processes and decisions.

Before joining the Africa Resources Trust, I was both the focal point for the Convention on Biological Diversity (CBD) and the CITES Authority for Zimbabwe. I was involved in inter-governmental negotiations for the CBD on behalf of Zimbabwe. Since joining ART I have participated in these conventions on a regular basis.

- Information Outreach. This involves the production and dissemination of information through an electronic news bulletin, newsletters, booklets, brochures, etc and theatrical presentations on important sustainable development issues.
- Network and Capacity Building. ART networks with government institutions, NGOs, academics and media involved in environmental and development activities. To this end ART runs environment reporting courses for journalists, organises workshops, exchange visits and tours.

4.11 DATES: August 1995 to December 1998

4.12 JOB TITLE Deputy Director (Research), Department of National Parks and Wildlife Management, Zimbabwe

4.13 BRIEF JOB DESCRIPTION:

The Department of National Parks and Wildlife Management (now the PARKS AND Wildlife Management Authority) is a Zimbabwe Government Department which is mandated by the Parks and Wildlife Act of 1975 to manage the country's fauna and flora. The Parks Estate covers 13% of the total area of the country. The Department is responsible for the conservation and management of the fauna and flora within the estate. These duties are executed through a number of divisions. These are: Research; Management; Training; Extension and Interpretation and the Division of Administration and Finance. The Division of Research conducts research in both Fisheries and Terrestrial Ecology.

As the Deputy Director (Research), my responsibilities covered:

- (i) Being a member of the Directorate with oversight responsibility for policy formulation and the running of the of the Department and reporting to the Ministry of Environment and Natural Resources Management.
- (ii) Giving overall direction and supervision in research and monitoring programmes covering both fisheries and wildlife management,
- (iii) Networking with other Government departments, the private sector, NGOs and communities involved in conservation activities.

- (iv) Overseeing the Department's cutting edge policy of promoting sustainable development in rural areas through allowing rural communities to manage and benefit from wildlife resources.
- (v) Liaison with international organisations and giving direction in the implementation of relevant international conventions.

I was also the National Scientific Authority on the Convention on International Trade in Endangered Species in Fauna and Flora. The responsibilities entailed monitoring and regulating trade in wildlife products nationally and internationally in accordance with the CITES Convention. This involved (i) permitting, (ii) liaison with relevant stakeholders (e.g. police, customs and excise officials, the private sector, the CITES Secretariat, the Scientific Authorities of trading countries, etc.), (iii) overseeing the management of the database on wildlife trade issues, (iv) capacity building of staff and stakeholders, (v) producing annual reports, (vi) communicating with the CITES Secretariat (vii) preparation of proposals, (viii) participating in the Conference of the Parties to the CITES Convention, (ix) giving back feedback to stakeholders following meetings of the Conference of the Parties, etc.

I was also the National Focal Point for the Convention on Biological Diversity having negotiated the Convention on behalf of the Zimbabwe Government. My responsibilities entailed

- Liaison with the CBD Secretariat,
- Coordination of CBD issues at the national level including the development of a national programme on the Convention,
- Setting up and coordinating the activities of the National Biodiversity Forum,
- Participating in the Conference of the Parties to the CBD.

In the negotiations for the CBD, I was involved in the development of the Ecosystem Approach and I participated in the development of the Addis Ababa Principles on Sustainable Use.

4.14 DATES: August 1991 to August 1994

4.15 JOB TITLE Chief Aquatic Ecologist (Department of National Parks and Wildlife Management).

4.16 BRIEF JOB DESCRIPTION

In Zimbabwe, the government, through the department of National Parks and Wildlife Management, has the responsibility of developing the fisheries sector and creating the basic environment for this sector to operate. As the Chief Ecologist responsible for the fisheries sector within this department, my duties were to promote the appropriate legislation and policies, appropriate fiscal measures, research, support services and development projects.

My duties covered:

- (i) Reporting to the Deputy Director (Research) in the department.

- (ii) Giving overall direction and supervision in research, training and monitoring programmes in the fisheries sector.
- (iii) Developing policies in the fisheries sector.
- (iv) Networking with other Government departments, the private sector, donors, NGOs and communities involved in fisheries activities.
- (v) Liaising with the Department of Agricultural Extension (Agritex) in promoting community fisheries management activities in dams in communal areas.
- (vi) Liaison with international organisations e.g. FAO and giving direction in the implementation of relevant international conventions in the fisheries sector.

4.17 DATES: July 1985 – July 1991

4.18 JOB TITLE Senior Ecologist / Principal Ecologist and Officer-in-Charge, Lake Kariba Fisheries Research Institute (Department of National Parks and Wildlife Management).

4.19 BRIEF JOB DESCRIPTION

In 1985 I was promoted to Officer-in-Charge of the Lake Kariba Fisheries Institute. The internationally recognised Institute at Lake Kariba is the largest fisheries research Institute in Zimbabwe, with a staff complement of 44. Of the 44 members of staff, 5 are researchers, 3 are technicians, 1 is an Executive Officer, 2 are typist stenographers, 17 are scouts, 5 are workshop staff, 2 are officer orderlies, 2 are coxswains and 9 are general hands. My responsibilities covered:

- (i) Reporting to the Lake Kariba Fisheries Research Institute Management Committee.
- (ii) Giving overall direction and supervision in research, training and monitoring programmes in the fisheries sector. Research on Lake Kariba is both basic and applied with emphasis on understanding biological and ecological factors which affect life cycles, behaviour and mechanisms that govern the size of commercial stocks. The research agenda also has to be responsive to the needs of fishing communities.
- (iii) Giving overall direction to fisheries management on the lake. This entails designing and enforcing predetermined exploitation quotas and regulations to promote the sustainable exploitation of fish stocks and fisheries extension activities.
- (iv) Carrying out fisheries research. Part of the research led to the setting up cage farming on the lake. Lake Kariba has the largest open fresh water fish farming enterprise in Africa.

- (v) Being the Co-Project Manager of the Zambia/ Zimbabwe SADC Fisheries Project. This was a joint Zambia and Zimbabwe fisheries management project on Lake Kariba. This project was funded by NORAD and DANIDA and aimed at strengthening the collaboration between the Department of Fisheries (DoF) in Zambia and the Institute as well as the research capacities of both DoF and the Institute. The project was based at the Institute and ran for a period of 8 years from 1986 to 1994.
- (vi) Fund raising for the Lake Kariba Fisheries Research Institute.
- (vii) Supervising students, e.g. from the University of Stockholm.

4.20 DATES: From April 1982 to June 1985

4.21 JOB TITLE: Ecologist

4.22 BRIEF JOB DESCRIPTION

I joined the Lake Kariba Fisheries Research Institute in April 1982. Between 1982 and 1985 I was a Research Ecologist and my research work covered 2 areas:

- Evaluation of the primary production levels of Lake Kariba. This study has been documented in a number of publications (see 11.1, 11.3).
- Assessing the distribution, abundance and composition of submerged macrophytes in Lake Kariba and elucidating the operative factors that influence the organisation of the submerged macrophyte communities.

5. HONORS/AWARDS/LEADERSHIP ROLES/COMMITTEES

- **Councillor: Kariba Town Council Board, August 1984 to August 1991.**
Within the 7 year period, on a number of occasions I chaired the Finance, Staff and Policy Committee, a key policy committee in the Council.
- **Member: Advisory Committee of the UNDP funded FAO Regional Project for Inland Fisheries Planning, Development and Management, Eastern/Central/Southern Africa (FAO/IFIP), 1989 to 1993.**

The committee advised on research directions for and the development needs of the large inland lakes of Eastern, Central and Southern Africa. These lakes include Lakes Victoria, Tanganyika, Malawi, and Kariba. This project came to an end in 1993 after running for four years.

- **Committee Member: Lake Kariba Fisheries Research Institute, Committee of Management.**

This committee advised on the research and development needs of Lake Kariba and its environments. This entailed interacting with policy makers and stakeholders.

- **Member: Steering Committee of the Zambia-Zimbabwe SADC Fisheries Project.**

This 8 year SADC Project created a platform for collaboration on research and the development of Lake Kariba and its environments between Zambia and Zimbabwe. This led to joint research programmes between the two countries. One of the key outcomes was a protocol for collaboration on Lake Kariba and the Zambezi River signed by both the governments of Zambia and Zimbabwe.

- **Member: Directorate of the Department of National Parks and Wildlife Management, Zimbabwe.**

In my capacity as Deputy Director in charge of research I was part of the Directorate having oversight over the development of the Parks Estate in Zimbabwe.

- **Representative of the Government of Zimbabwe, Convention on Biological Diversity.**

I participated in the inter-governmental negotiations on the Convention on Biological Diversity which was sponsored by UNEP on behalf of the Zimbabwean Government. The Convention was signed in Rio de Janeiro in 1992. The Convention is now a powerful global platform for international collaboration in biodiversity conservation.

- **National Representative - Zimbabwe, Convention on Biological Diversity, 1992 – 1996.**

I was the Zimbabwean Focal Point on the Convention on Biological Diversity between 1992 and 1996. During this period I was involved in establishing and coordinating both regional and national programmes on biodiversity.

- **Chairman, Africa Region: Conference of the Parties to the Convention on Biological Diversity, 1994 and 1995.**

In 1994 I served as the Chairman of the Africa Region and spoke on behalf of the region at the first and second Conference of the Parties to the Convention of Biological Diversity in 1994 (in the Bahamas) and 1995 (in Indonesia) respectively.

- **Member: Bureau of the Convention on Biological Diversity, 1996.**

In 1996, I served as a member of the Bureau of the Convention on Biological Diversity. I was one of the two Bureau Members representing Africa. The Bureau is the Oversight Body that is responsible for the inter-sessional work of the Convention.

- **Member: Zimbabwe National Agro-forestry Committee.**
- **Member: Zimbabwe Water Pollution Advisory Board.**
- **Member: Livestock Committee of the Agriculture Research Council of Zimbabwe.**

As a member of the council I had advisory responsibilities on matters related to wildlife conservation and management, particularly in the areas of integrating wildlife conservation and cropping.

- **Member: Zimbabwe National Biodiversity Forum.**
- **Representative: SADC Biodiversity Forum.**

I represent Zimbabwe on the SADC Biodiversity Forum with special responsibilities in the area of Access and Benefit Sharing.

- **Member, SADC Task Force.**

The Task Force was set up as a core team to spearhead SADC preparation for the 8th Conference of the Parties to the Convention on Biological Diversity and to advise on the implementation of the recommendations from this meeting.

6. MEMBERSHIP OF PROFESSIONAL ASSOCIATIONS/ SOCIETIES

- IUCN Southern Africa Specialist Sustainable Use Group
- Zimbabwe Scientific Research Council
- Chairman: Zimbabwe National IUCN Committee
- Zimbabwe National Steering Committee of the United Nations Global Environment Facility/ Small Grants Programme (UNDP GEFSGP).

The Committee has oversight of the implementation and monitoring of the Zimbabwe Country Programme Strategy under the UNDP GEF/SGP.

7. ADMINISTRATIVE EXPERIENCE

- As the Director of ART, I had the oversight administrative responsibilities for the organisation in terms of reporting to the Board of Trustees, fundraising, staff administration, coordination of programmatic and other activities.
- As Deputy Director in the Department of National Parks and Wildlife Management, I was responsible for the overall administration of policy management of the research programme within the Department.
- As Chief Ecologist in the Department of National Parks and Wildlife Management I was responsible for all fisheries development in the country. I was responsible for formulating and developing research plans.
- As Officer-in-Charge of the Lake Kariba Fisheries Institute, I managed a staff complement of 44. I prepared annual work plans and budgets for the Institute and facilitated staff training locally and abroad. In addition, I worked closely with other government departments and non-governmental organisations, on how best to use local resources to benefit local communities e.g. in the development of fishing co-operatives.

A number of consultants (local and foreign) came to the Institute in the context of the Zambia/Zimbabwe SADC Fisheries Project and I was responsible for organising and co-ordinating their activities. This project was run by a steering committee of which I was a member.

As the Project Manager for the Zambia/ Zimbabwe Fisheries Project, I reported to the donors and Management Committees at annual meetings. Responsibilities entailed preparing and presenting budgets and annual plans, review of research and administrative progress, implementations of recommendations from the annual meetings.

8. ORGANISATION OF CONFERENCES AND WORKSHOPS

December 1992.	Hydrological Society of Africa on the biodiversity, Conservation and management of aquatic systems. Harare, Zimbabwe
February 1992.	Zambezi Valley Regional Planning Conference. The Purpose of the conference was to determine strategies for setting up a regional council to plan for the Zambezi Valley within Zimbabwe. Following the workshop a Combination Authority to create a master plan was established.
May 1993.	Workshop on New Approaches to the Management of Lake Kariba Inshore Fisheries. The purpose of the workshop was to map out procedures for the transfer of the responsibility for management of the fishery to the local communities. Recommendations from this workshop have now been implemented.
September 1995.	On behalf of the government of Zimbabwe, I co-Organised with Mozambique the second Southern African Regional Workshop on setting up national and regional strategies to implement the Convention on Biological Diversity and to prepare for the 2 nd Conference of the Parties on the Convention on Biological Diversity.
February 2003.	Jointly with IUCN, the Program for Land and Agrarian Studies, University of Capetown and on behalf of ART we organised a Southern African workshop for stakeholders, policy makers and communities to get a regional position in preparation for the 5 th World Parks Congress that took place in Durban, South Africa from 8 to 17 September 2003.
March 2005.	Jointly with IUCN, the Parks and Wildlife Authority and on behalf of ART, we organised the Southern African Elephant Management Planning Workshop. The Workshop took place in Victoria Falls, Zimbabwe.
August 2005.	Jointly with the Parks and Wildlife Authority, Zimbabwe and on behalf of ART, we organised the Zimbabwe/Mozambique/Zambia (ZIMOZA) Transfrontier Conservation Area Planning Workshop. This took place in Kanyemba.
October 2005.	Jointly with IUCN, and on behalf of ART, we organised the West/Central African Lion Conservation workshop. This took place in Douala, Cameroon.
January 2006	Jointly with IUCN, and on behalf of ART, we organised the Southern / Eastern Africa Lion Conservation workshop. This took place in Johannesburg, South Africa.

9. EXPERIENCE IN OTHER COUNTRIES

9.1 STUDIED IN: Nigeria (1977/78 – 1979/80) B.Sci degree programme

Sweden (1984 – 1989) PhD Programme.

9.2 VISITED:

Zambia (1985)

- presented 2 papers at the FAO/CIFA workshop on fisheries management.

Canada (1986)

- presented a paper at the GERMAN/IIFET joint conference on Small Scale Fisheries, Economic Development, Trade and Policies. August 10 – 15, 1986, Rimouski.

University of Maryland (USA) (1986)

- organised a co-operative research programme between Maryland and Kariba Fisheries Research Institute.

Tanzania (1989)

- presented a paper at the FAO/IFIP workshop on Economic Aspects of Fisheries Development and Management.

Burundi (1990, 1991)

- attended advisory committee meetings of the FAO/IFIP project.

University of Hull (U.K.) (1990)

- attended a 3 months fisheries management course.

University of Kuopio (Finland) (1991)

- presented a paper on fisheries development in Lake Kariba at the Symposium on Limnology and Fisheries of Lake Tanganyika. The symposium was convened to prepare a detailed regional research programme on the fisheries of Lake Tanganyika.

Botswana (1991)

- presented a paper on Dam Developments, Controlled Flooding and their Environmental Effects in connection with the IUCN symposium on wetlands within the SADC region.

Geneva (1992)

- negotiated the UNEP sponsored Convention on Biological Diversity on behalf of the Zimbabwe government.

Nairobi & New York (1992)

- negotiated the UNEP sponsored Convention on Biological Diversity on behalf of the Zimbabwe Government.

Mozambique (1993)

- FAO/ALCOM annual meeting

Zambia (1993)

- Annual Advisory Committee meeting of the FAO/IFIP project.

Norway (1993)

- Attended the Norway/ UNEP Experts Conference on Biodiversity.

Burundi (1993)

- member of the Working Group that prepared the FAO/IFIP “Proposal for the establishment of a Regional Centre for Fisheries Research and Management (Eastern/Central/Southern African Region)”

Namibia (1994)

- attended the 6th annual meeting of ALCOM

Mexico (1994)

- attended the 46th Annual meeting of the International Whaling Commission.

Kenya (1994)

- member of the government delegation attending the second Inter-governmental Committee on the Convention on Biological Diversity in preparation for the First Conference of the Parties.

Namibia (July and August, 1994)

- taught a course at the University of Namibia: “Fisheries Planning and Management”

Sweden (October 1994)

- attended a specialist group meeting on Property Rights and the Performance of Natural Resources.

Florida, United States (November 1994)

- member of the Zimbabwe government delegation that attended the 9th Conference of the Parties on the Convention on International Trade in Endangered Flora and Fauna Species (CITES).

The Bahamas (December 1994)

- member of the Zimbabwe delegation that attended the 1st Conference of Parties on the Convention on Biological Diversity.

Mozambique (March 1995)

- visited Maputo to explore ways of establishing formal linkages with the Department of Small Scale Fisheries (IDPPE) and the Institute of Fisheries Research (IIP) on behalf of the Government of Zimbabwe

Zambia (April 1995)

- attended SADC Technical Consultation meeting on Fisheries.

Denmark (1995)

- attended ICLARM meeting on Fisheries Co-Management

Egypt (September 1995)

- attended ICLARM Workshop on the Development of International Research Programmes for the Abbassa Research Facility in Cairo.

South Africa (October 1995)

- member of the Zimbabwe delegation that attended African Region preparatory meeting for the 2nd Conference of the Parties on the Convention on Biological Diversity.
- Member of the Zimbabwe delegation attending the African Regional meeting on the Convention on Biodiversity.

Malawi (October 1995)

- member of the Zimbabwe delegation that attended the Southern African Regional Workshop on setting up national and regional strategies to implement the Convention on Biological Diversity and to prepare for the 2nd Conference of the Parties on the Convention on Biological Diversity.

Indonesia (November 1995)

- member of the Zimbabwe delegation attending the second conference of the Parties on the Convention on Biological Diversity.

Botswana (February 1996)

- attended the annual meeting of the FAO/ALCOM Project as a member of the Steering Committee.

Canada (1996)

- attending a Bureau meeting as a member of the Bureau of the Convention on Biological Diversity for 1996.

Mozambique (August 1996)

- member of the Zimbabwe delegation that attended the Southern African Regional Workshop on setting up national and regional strategies to implement the Convention on Biological Diversity and to prepare the 3rd Conference of the Parties on the Convention on Biological Diversity.

Seychelles (October 1996)

- member of the Zimbabwe delegation attending the 2nd African Regional meeting on the Convention on Biodiversity.

Argentina (November 1996)

- member of the Zimbabwe delegation attending the 3rd Conference of the Parties on the Convention on Biological Diversity.

Etc., etc., etc.

10. TEACHING EXPERIENCE

- Taught the course “Fisheries Planning and Management” at the University of Namibia for 6 years. This course was offered for fisheries administrators within the SADC region. I was involved in the development of the fisheries, planning and management course.
- Supervised 2 students at PhD level.
- Supervised students at M.Sc. level.
- Co-supervised field work and thesis writing for 4 BSc. (Hons.) students at the University of Stockholm, Sweden. They carried out their field work at Lake Kariba.
- Taught in High School for 1 year.

11. CONSULTANCIES

- 11.1 I was a Resource Person at the National Workshop on the Development of the *sui generic* Legislation on Intellectual Property Rights and Patents for Zimbabwe. Kadoma Hotel and Conference Centre, 6-10 September 1998. Presented a paper entitled “What is patentable in Zimbabwe?”
- 11.2 I participated in the External Programme and Management Review of the International Centre for Living Aquatic Resource Management (ICLARM, Manila). This was carried out between October 1998 and 15 February 1999. ICLARM is the only CGIAR Centre (Collaborative

Group on International Agricultural Research) that specialises in both marine and freshwater fisheries and other aquatic resources. The consultancy involved:

- i. reviewing the global ICLARM programme
- ii. assessing the suitability of the Abbassa Fisheries Centre in Egypt as the ICLARM regional centre for both North Africa and Sub-Saharan African and,
- iii. developing the Abbassa fisheries programme for Africa and how this should link with existing fisheries activities.

These recommendations are under implementation.

The study was sponsored by the World Bank and the Food and Agriculture Organisation of the United Nations (FAO).

- 11.3 I was the Resource Person in the Biodiversity Country Study for Zimbabwe. In this capacity, I wrote on wildlife and fisheries. This study was carried out by the Zimbabwe Government and sponsored by the Global Environment Facility (GEF) of the World Bank. The program ran between 1998 and 2000.
- 11.4 I prepared the Millennium Aquaculture Plan for Sub-Saharan Africa: - "An Analysis of Aquaculture Trends in Africa". The study was also presented at an FAO organised workshop in Bangkok, Thailand (25 – 28 October 1999). It is part of the background material for the Millennium Conference on Aquaculture (10 – 25 February 2000) which was held in Bangkok. The study was sponsored by FAO
- 11.5 I was a member of the team that drafted the "*SADC Protocol on Fisheries*" in 2000. The study was sponsored by the Southern African Development Community.
- 11.6 I participated in the development of the "*SADC Protocol on Economic and Technical Co-operation Between the Government of the Republic of Zambia and the Government of the Republic of Zimbabwe Concerning the Management and Development of Fisheries on Lake Kariba and the Transboundary Waters of the Zambezi River*". It is one of the few protocols developed within the SADC region for the management of transboundary natural resources.
- 11.7 I was a Resource Person at the Zimbabwe workshop held in preparation for the Second National Report to the Convention on Biological Diversity. This was held in Kadoma in February 2003.
- 11.8 I was part of a team of three experts who prepared the Second Biodiversity National Report in 2003.
- 11.9 Between March and May 2003, I was the leader of a team of three consultants that reviewed legislation that governs access to natural resources and benefit sharing in Zimbabwe.
- 11.10 Between February and April 2005, I was the Team Leader of the resource persons who prepared the 3rd National Biodiversity report for Zimbabwe.
- 11.11 I served as a resource person at two meetings of the World Bank/ CGIAR (Collaborative Group on International Agricultural Research) in areas of:

- i. improved management and use of Aquatic Resources and
- ii. Improved Water Management and Use in Agriculture.

These meetings took place in Rome between 26 and 29 January 2005. The meetings were called for to refine priority research areas for CGIAR Centres through discussions between the CGIAR Science Council, CGIAR Centres and subject matter experts. The outcomes are guiding system priority research for the period 2005 – 2015.

- 11.12 I was the Team Leader at the Africa Resources Trust in a 1 ½ year study on “Assessing Capacity Building Needs for Biodiversity Management and Development in Zimbabwe”. The study entailed carrying out field work, liaising with Government Officials, Departments/agencies and NGOs and the use of stakeholder workshops to review progress. The study was carried out in 2004.
- 11.13 In 2007 and on behalf of the African Wildlife Consultative Forum, I prepare the concept for a regional workshop on hunting and coordinated the convening of the workshop. The workshop was co-hosted by the North West Provincial Government of South Africa and and Resource Africa (an NGO) and was attended by the following countries Botswana, Malawi, Mozambique, Namibia, South Africa, Zambia and Zimbabwe, conservation NGOs, and community leaders. I prepared the workshop report and an action plan for hunting activities in southern Africa.
- 11.14 In 2007 on behalf of the African Wildlife Consultative forum, I prepared a proposal for the development of unified trophy hunting approaches in Southern Africa. I coordinated the workshop which was hosted by the Government of Namibia. The workshop was attended by the countries Botswana, Mozambique, Tanzania, Zambia, Zimbabwe, and Namibia; conservation NGOs, Safari Operators, and community leaders. The workshop produced a “*Best Practice hunting guide for Southern Africa*”.
- 11.15 In 2008 on behalf of the African Wildlife Consultative Forum, I prepared the project proposal: “*A Survey of The Leopard Population (Panthero Pardus) In The Tchuma Tchato Community Hunting Area (Progamas Comunitarios) of Tete Province, Mozambique*” and coordinated its implementation.
- 11.16 In 2008 on behalf of the African Wildlife Consultative Forum, I prepared the project proposal focused on setting up a unified system for the management of hunting databases for Zimbabwe, Mozambique and Zambia. I coordinated the convening of the workshop and prepared the workshop report: “*Report on the workshop for the directors of wildlife conservation departments on data bases*”. The report covers: (i) the development of unified data collection formats, (ii) capacity building of key stakeholders in database management, (iii) the development of appropriate soft ware.
- 11.17 In 2008 I prepared the “Strategic Framework for the Africa hunting and Conservation Programme” for the African Wildlife Consultative Forum.

12. SCIENTIFIC PUBLICATIONS

- 12.1 Machena, C. 1983. A study of the primary productivity of the Sanyati Basin of Lake Kariba and the application of a regression model to estimate fish yields in the lake. M.Sci thesis, University of Zimbabwe.

- 12.2 Machena, C. 1985. A survey of the artisanal fishery on the Zimbabwe side of Lake Kariba. Zimbabwe Agricultural Journal. 82: 205 – 208.
- 12.3 Machena, C. & Mtada, S.M., 1985. Planning and Fisheries Management in Zimbabwe. FAO CIFA/85/symp./C.P.7. Paper presented at the FAO CIFA Symposium on the Planning and Implementation of Fisheries Management and Development Programmes. Lusaka, 7-11 October, 1985.
- 12.4 Machena, C. & P. Fair, 1985. Comparison of fish yields from prediction models between Lakes Tanganyika and Kariba. Hydrobiologia. 137: 29 – 32.
- 12.5 Machena, C. 1986. Identification of the needs and problems of the local black fishermen in the Kariba fishery (Zimbabwe). In: Proceedings. International Conference on Fisheries, University of Rimouski, Canada. August 10 to 15, 1986, pp. 359 – 370.
- 12.6 Machena, C. 1987. Zonation of submerged macrophyte vegetation in Lake Kariba, Zimbabwe and its ecological interpretation. Vegetatio. 73:111-119.
- 12.7 Machena, C. 1987. Predator-prey relationships, fisheries productivity and fish population dynamics in Lake Kariba – a review. In: Predator-prey relationships, population dynamics and fisheries productivities of large African lakes. CIFA/OP15 pp 24 – 44.
- 12.8 Machena, C. & N. Kautsky, 1988. A quantitative diving survey of benthic vegetation and fauna in Lake Kariba – a man made lake. Freshwater Biology. 19: 1-14.
- 12.9 Machena, C. N. Kautsky & G. Lindmark, 1990. Growth and production of Lagarosiphon ilicifolius in Lake Kariba – a man made tropical lake. Aquatic Botany. 37:1-15.
- 12.10 Ramberg, L., S. Bjork-Ramberg, N. Kautsky & Machena, C. 1987. Development and biological status of Lake Kariba – a man made tropical lake. Ambio. 16: 314-321.
- 12.11 Machena, C. & A.B.E. Mabaye. Some management aspects and constraints in the Lake Kariba fishery. NAGA the ICLARM QUARTERLY. 10:10-12.
- 12.12 Machena, C. 1989. Ecology of the hydrolittoral macrophyte communities of Lake Kariba. PhD thesis, University of Uppsala.
- 12.13 Machena, C. & V. Kanondo, 1991. A review of the fisheries Lake Kariba and their management. UNDP/FAO Regional Project for Inland Fisheries Planning (IFIP). RAF/87/099-TD/17/91 (En).
- 12.14 Machena, C., R. Sanyanga, & N. Kautsky, 1991. Factors affecting the abundance and distribution of inshore fish and comparisons between fished and protected areas in Lake Kariba, Zimbabwe.
- 12.15 Machena, C. 1991. Threats to bio-diversity in Zimbabwe. In: National legislation and biological diversity conservation. Proceedings, Biological Diversity, International and National Law Aspects, pp 259 – 279. Environment Law Centre. IUCN.

- 12.16 Machena, C. 1992. Dam developments and their environmental effects: the Kariba experience. In: Eds. T. Matiza & N. Chabwela (Eds.), *Wetlands conservation in Southern Africa*. Proceedings of the SADC Wetlands Conference, IUCN.
- 12.17 Machena, C., Kolding, K. & Sanyanga, R.A. 1993. A preliminary assessment of the trophic structure of Lake Kariba, Africa, pp 130-170. In: V. Christensen & D. Pauly (Eds.) *Trophic Models of aquatic ecosystems*. ICLARM Conference Proceedings No. 26, 390p.
- 12.18 Machena, C. & Moinuddin, H. 1993. Management of the Lake Kariba Inshore Fisheries (Zimbabwe). A Proposal. Prepared for the Zambia/Zimbabwe SADC Fisheries Project. Project Report No. 19.
- 12.19 Chiwanga, P.C. & Machena, C. 1993. Proposal for setting up the Zambezi Valley Regional Planning Council (Zimbabwe). Zambia/Zimbabwe SADC Fisheries Project (Lake Kariba), Report No. 23, 47p.
- 12.20 Kautsky, N., Machena, C. & Sanyanga, R.A. 1995. Abundance and distribution of fish in fished and protected areas of Lake Kariba. *Hydrobiologia*, 306: 67-78.
- 12.21 Machena, C. 1995. Recent developments in the fisheries of Lake Kariba (Zambia/Zimbabwe). In: *Current Status of Fisheries and Fish Stocks of four largest African Reservoir*. (Eds. R.C.M. Crul & F.C. Roest). FAO/CIFA Technical paper 30, pp 41-79.
- 12.22 Machena, C. & Marongwe, D. 1995. Status and biodiversity conservation and utilisation in Zimbabwe. Ministry of Environment and Tourism. Government of Zimbabwe.
- 12.23 Machena, C. 1996. Some Fisheries and Socio-economic Characteristics of large East African Lakes and Reservoirs and their Research Needs. In: (D. Pauly, Editor) *Fisheries Ecology of African Lakes*. ICLARM.
- 12.24 Machena, C. 1996. The Convention on Biological Diversity and Implications of the Intellectual Property Rights and patents: Issues to be captured in national measures. Paper presented SIRDC Workshop, Harare, October 1996.
- 12.25 Machena, C. 1997. The Pollution and Self Purification Capacity of the Mukuvisi River. In: (N. Moyo, Editor), *Lake Chivero, a Polluted Lake*. University of Zimbabwe Publications, Harare. Pp 75-91.
- 12.26 Machena, C. 1997. A Framework for a New Approach to the Management of the Lake Kariba Kapenta Fishery. Zambia/Zimbabwe SADC Fisheries Project Report.
- 12.27 Machena, C. 1997. The Organisation and Production of the Submerged Macrophyte Communities in Lake Kariba. In: (J. Moreau – Ed.) *Advances in the Ecology of Lake Kariba*. Published by the University of Zimbabwe.
- 12.28 Moreau, J. et al. 1997. Biomass Flows in Lake Kariba, towards an Ecosystems Approach. In: J. Moreau (Editor). *Advances in the Ecology of Lake Kariba*. University of Zimbabwe Publications.
- 12.29 Machena, C., & Heath, D. 1997. Sport Hunting in Zimbabwe. Department of National Parks and Wildlife Management, Zimbabwe.

- 12.30 Machena, C., Hutton, J. and Chishawa, A. 1998. What is CITES and what does it mean to Zimbabwe. *Zimbabwe Science News*, 32(1): 3-7.
- 12.31 Machena, C. & Kwaramba, R. 1997. The Creation of Property Rights in the Lake Kariba Inshore Fishery in Zimbabwe. In: (Ed. R. Remane), *African Inland Fisheries, Aquaculture and the Environment*, Fishing News Books, FAO.
- 12.32 Machena, C. 1997. The 10th CITES Conference of the Parties: Guaranteeing the future for Wildlife in Zimbabwe. *Zimbabwe Hunter* 3(3), pp 32-33.
- 12.33 Machena, C. 1998. What is patentable in Zimbabwe, Paper presented at the National Workshop on the Development of a *sui generis* Legislation on Intellectual Property Rights and Patents for Zimbabwe. Kadoma Hotel and Conference Centre, 6-10 September 1998.
- 12.34 Machena, C. & Banda, G. 2002. (Eds.). *Community, Farmers' and Breeders' Rights in Southern Africa: Towards a Framework for a Sui Generis Policy and Legislation*, IUCN-ROSA, Harare.
- 12.35 Machena, C. 2003. Setting up Institutions to Manage Transboundary Natural Resources: Lake Kariba, a case in point. In: B. Chaytor & K.R.Gray (Eds.). *International Law and Policy in Africa*. Kluwer Academic Publishers, Dordrecht, Boston and London. *Environment Policy*, Vol.36, pp 203 to 215.
- 12.36 Machena, C & Mutepe, F. 2003. *Conservancies as Complementary Land Reform Models in Southern Africa – Insights from case studies in Zimbabwe and Namibia*. Zero, Harare. Zimbabwe.
- 12.37 Machena, C., Mpofu, B., Chitsike, L.T. and Shumba, E.M. 2004. Status of Access and Benefit Sharing of Genetic Resources in Zimbabwe. In: E.Shumba (Ed.) *The Status of Biodiversity in Zimbabwe. Part 2*. Ministry of Environment and Tourism, Harare, Zimbabwe.
- 12.38 Machena, C. & C. Jonga. (In prep.). *CAMPFIRE Operational Manual*.

13. REFEREES

- 13.1 Dr. Enos Shumba, National Director, WWF Zimbabwe.
Email: eshumba@wwf.org.zw
Mobile: 263 – 772 277 993
- 13.2 Dr. W. K. Nduku, National Director, Wildlife and Environment, Zimbabwe.
Email: zimwild@mweb.co.zw
Mobile: 263 – 772 513 474
Tel: 263 – 4 – 747 500
- 13.3 Mr. Charles Jonga, Director, CAMPFIRE Association, Zimbabwe

Email: campfire@ecoweb.co.zw
Mobile: 263 – 712631 409 / - 772 559 102
Tel: 263 – 4 - 747422

Rodger Mpande CV

CURRICULUM VITAE

1. **Family name:** Mpande
2. **First names:** Rodger Lewis
3. **Date of birth:** 18/10/1959
4. **Nationality:** Zimbabwean
5. **Education:** MSc Agriculture , PhD Student.
6. **Language skills:** Competence on a scale of 1 to 5 (1 - excellent; 5 - basic)

Language	Reading	Speaking	Writing
English	5	5	5
Russian	3	3	2
Shona	3	4	2
Ndebele	3	4	2
Zulu	3	4	2

7. **Membership of professional bodies:** Association of Agricultural Economics, Zimbabwe Organic Movement, Geological Society of Zimbabwe, Natural Farming Network.
8. **Present position:** United Nations University Institute of Advanced Studies Japan
9. **Years within the University :** 1 year

Summary Profile:

Rodger Mpande CV

Rodger Mpande is a development consultant with over 25 years of experience. After graduating with a Masters of Science Degree in Agriculture, with a special focus on Biotechnology in Plant Breeding, Rodger has worked in various positions in Zimbabwe, the region and internationally. Rodger is currently a Research Fellow at the United Nations University Institute of Advanced Studies in Japan focusing on International Environmental Governance.

His first professional posting was in the Ministry of Agriculture, where he worked for three years as an Extension Specialist. In this position Rodger gained vast experience of working with small scale farmers, on former research specialists from the University of Zimbabwe, the private sector and local authorities.

After leaving the Ministry Rodger joined the Zimbabwe Institute of Development Studies (ZIDS) as a Researcher in the Department of Agriculture and Agrarian Studies under the leadership of Professor Sam Moyo. In this capacity Rodger worked with a team of highly qualified and experienced researchers and policy makers in developing the country's agricultural policy and strategy.

At the end of the project Rodger joined the Ministry of Gender, Community and Youth Development as a Program Coordinator. Using his experience gained at the Ministry of Agriculture and ZIDS he introduced various community development projects in the most marginal districts of the country including the Zambezi Valley.

After two years working directly with small scale farmers Rodger decided to take his experience to the regional and international level. As a regional program coordinator on Environment and Development in the Zimbabwe Regional Environmental Organization (ZERO) Rodger led Southern African civil society groups in the Rio Earth Summit process that resulted in the conclusions of the three Rio Conventions: the UN Convention on Climate Change, Drought and Desertification and UN Convention on Biological Diversity.

Rodger is a founder member of Community Technology Development Trust a leading NGO that is working with small scale farmers in translating international environmental and agricultural agreements into community based programs. In the past decade Rodger has worked as a consultant with a number of organizations including UN agencies, SADC, COMESA, the private consulting firms, Embassy of Denmark and the NGO sector. He is currently consulting on various topics including the development of the organic movement in the country and region, the extractive industry, the MDGs and policy advocacy. He is currently the Chairperson of the Organic Standards and taking a leading role in advocating for a national policy on organic production. He also represents the African civil society groups on issues related to the implementation of the UN Convention on Biological Diversity (CBD).

Rodger is a team builder, effective facilitator and strategic planner. He is able to interact with various stakeholders from a small scale farmer to a policy maker. His wide experience working at national, regional and international level has given him an advantage in designing new development projects/programs.

Rodger Mpande CV

10. Professional experience:

Date from – Date to	Company Position	Description
September 2011 to Date	United Nations University Institute of Advanced Studies (IAS)	Research Fellow on International Environmental Governance with A Special Focus on Biodiversity. Policy and Practise
Jan 2009 to date	Development Advisor Ntutuko Development Advisory Services	Development Consultant (Agriculture, Environment, Regional Integration and Extractive Industries) Chairperson Organic Standards Formulation, North South Corridor Development Initiative, Promotion of Extractive Industry Transparency Initiative, Environmental Management in the Small Scale Mining Sector. Formulation of the National Biodiversity Strategy Action Plan, Advocating for National Policy on Organic Agriculture.
Jul 2006 to Dec 2008	SADC/CTDT, Land and Agrarian Reform Program Coordinator	Program Coordinator SADC Land and Agrarian Reform. Advocating for Pro Poor land and agrarian reforms in SADC countries
April 2003 to Jun 2006	Freelance consultant	Provision of consulting services for UN agencies, SADC governments, COMESA, and NGOs. Produced the first national MDG report for Zimbabwe.
Jan 2001 to March 2003	Technical Advisor	Technical Advisor to a Danida/ UNDP Supported Project (District Environment Action Planning) Produced a series of District Environmental Profiles to support district development planning and investment.
June 1998 to Aug 2000	Technical Advisor Min of Environment and Tourism	Technical Advice to the Agriculture and Environment Sector Support Program and DANIDA Missions to Zimbabwe.
May 1997 to March 1998	Consultant Embassy of Denmark	Program Design of the Agriculture Sector Support Program for Zimbabwe
Feb 1997 to May 1997	Consultant COWI Consult	Environment Sector Support Program Formulation SADC Region for DANIDA and Danced.
July 1996 to Nov 1996	Part time Consultant Water Quality Institute (Denmark) Nordic Consulting Group(NCG)	Formulation of Agriculture Sector Support Projects for the Ministry of Agriculture... Technical backstopping of Danida Review Missions
January 1995 to June 1996	Community Development Trust (CTDT) Technical Director	Founder Member of Community Technology Development Trust. Technical Support to Community based projects. Regional and International policy and advocacy work on agriculture, rural development and environment. Major focus on Global Treaty on Plant Genetic Resources for Food and Agriculture.
January 1993 to December 1994	(ZERO) Program Coordinator Community Technology	Coordinated Civil Society participation in negotiating the post Rio Environmental Agreements in the SADC Region (Convention on Biological Diversity, UN Convention on Drought and desertification, UN Convention on Climate Change). Policy and Advocacy on Sustainable Development.
November 1990 to December 1992	Ministry of Women's Affairs and Community Development Project Manager Regional Environment Organization	Managing a rural based women empowerment project in the Zambezi Valley. Established various income generating projects which impacted positively on the livelihoods of rural women and their immediate families.
October 1988 to October 1990	ZiIDS Researcher	Undertaking research on rural development and formulation of agricultural and environmental policy Produced a comprehensive national report on the status of agriculture in the country and strategies for enhancing growth in the sector.

Rodger Mpande CV

June 1985 to June 1988	Ministry of Agriculture Agriculture Officer	Providing agricultural extension services to small holder farmers and undertaking on farm research
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Key Publications/ Consultancies: 2000 to date

- 2012: ZOPPA, National Challenges of Organic Agriculture in Zimbabwe
- 2012: Access and Benefit Sharing on Genetic Resources Options For Africa
- 2012: Ministry of Environment and Natural Resource Management, The Future We Want, Report to Rio plus 20
- 2012: OSISA/SARW Mining and Biodiversity
- 2012: Green Growth and Options for Zimbabwe

- 2010: COMESA, Capacity Assessment of the Ministry of Regional Integration and International Cooperation
- 2010: Ministry of Environment and Natural Resource Management, Fourth National Report on Biodiversity
- 2010: ZELA, Stakeholder Perspectives of Extractive Industry Transparency Initiative (ETTI)
- 2010: GOZ/ Ministry of Environment and Natural Resources, Status of Biodiversity in Zimbabwe
- 2010: ZOPPA Organic Production Grower Guide Manuals: Lettuce, Tomato, Garlic, Carrots, Sweet Potato
- 2010: ZOPPA Organic Production Grower Guide Manual Carrots
- 2010: SZA/ ZOPPA Zimbabwe Organic Standards
- 2009: Hives, Evaluation of the Kabarole Research Center, Uganda
- 2008: Hivos- Evaluation of African Biodiversity Network
- 2007: Zimbabwe Institute Status of Migration in Zimbabwe
- 2007: CTDI - Agro-Biodiversity Status Report for Zimbabwe
- 2006: HIVOS - Evaluation of ACODE Uganda
- 2005: IUCN/ZERO - Status of Community Based Natural Resource Management in the SADC Region
- 2005: DANIDA - Agricultural Sector Support Program Document

Rodger Mpande CV

- 2005: **DANIDA** – Environment Sector Support Program Document
- 2005: **UNDP/GOZ** - UN Development & Assistance Programme for Zimbabwe.
- 2004: **GOZ/UNDP** - Environmental & Energy Programme Support Document
- 2004: **GOZ/UNDP** - Zimbabwean Millennium Development Goals First Report to the United Nations
- 2002: **ZERO** Civil Society Plan of Action of the World Summit on Sustainable Development
- 2002: **South African Department of National Parks**, Social Ecology Policy
- 2002: **SADC** Regional Land Reform Technical Support Facility Project Document
- 2002: **SADC** Civil Society Regional Programme for RIO + 10
- 2001: Ministry of Environment and Natural Resources, Framework for a National Environmental Fund
- 2001: UNEP, Zimbabwe Carbon Tax, an Environmental Economic Incentive
- 2000: **GOZ**, National Biotechnology Policy for Zimbabwe

INTERNATIONAL RELATED MISSIONS

Continent

Countries

Africa

Botswana, Benin, Burkina Faso, Ethiopia, Eritrea, Egypt, Mali, Tanzania, Lesotho, Swaziland, Kenya, Namibia, South Africa, Malawi, Eritrea, Mozambique, Uganda, Zambia

Europe

Denmark, Soviet Union, Switzerland, France, UK, Italy, Netherlands, Norway, Germany,

Americas

Brazil, Canada and USA

Rodger Mpande CV

Asia

India, Indonesia, Japan