

¹CURRICULUM VITAE FOR PROF. J. C. ONYANGO**BIODATA**

FAMILY NAME: John Collins Onyango
DATE AND PLACE OF BIRTH: 1958, Bondo, Kenya.
MARITAL STATUS: Married with children
NATIONALITY: Kenyan
PROFESSION: Educationist and Plant / Crop Physiologist
CONTACT ADDRESS: P. O. Box 28 - 40105, Maseno. Kenya.
Cell: +254 722 659155,
Email: jconyango@yahoo.com
PRESENT ADDRESS: University Botanic Garden, Maseno University,
P. O. Private Bag - 40105, Maseno. Kenya.

MANAGEMENT VISION

Management system in the twenty first century requires new thinking which will make a difference to the populace of the tropics where we find majority of developing nations. Tropics also happen to be hot spots for biodiversity and yet this natural asset has not been used satisfactorily by various governments in this region. My vision in this regard is to relate natural resource conservation to efficient utilization and sustainability, through benefit sharing to the local communities. The benefit sharing can be direct or through service delivery such as development of shared infrastructure, health provision, wealth creation, improved food security and management of sustainable environment for natural resources and higher Education for human resources. The traditional methods of managing resources are already out dated. The management based on the exchequer funds can be done by anyone who has spent at least 18 years in academic training. But the ability to attract funds from the international or bilateral partners is imperative for the development of our region. The appointment of individuals to manage institutions should be pegged to the ability to attract external funds through research and use it prudently. Institutions should be managed not by those who expect allowances from the institutions they manage but by those who can add value to the development of new knowledge and competitive education of our youth, value addition to our resources, environmental resilience and its sustainability. Above all the institutional management must roll down from the ivory tower and be relevant to common human living standards and needs. A Professor who cannot explain his/her development innovations/research to common citizen is not worth the paper on which his/her degree certificate is printed.

SCHOLASTIC CAREER:

1966 to 1972: Mbeka Primary School, Bondo, **C.P.E.**
1973 to 1978: Onjiko High School, Nyando, **E.A.C.E.**
1977 to 1978: Kericho High School, Kericho, **E.A.A.C.E.**
1979 to 1982: University of Nairobi, **B.Ed.** (Sci.) 2nd Class honours Upper Division.
1983 to 1985: University of Nairobi, **M.Sc.** in Botany, Plant Physiology.
Apr. 1987 to Aug. 1989: University of Sussex, United Kingdom, **D.Phil.**, Plant Physiology.

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Oct. to Dec. 1993:	University of Bayreuth, DAAD Senior Research visit Award in Germany.
Jun. to Sep. 1995:	Wye College, University of London, Training visit, World Bank Credit KE 2309 Award.
Jan. to Nov. 1998:	Louisiana State University, Rice Research Station, Crowley, LA, USA Fulbright Senior Research Award for Sabbatical Research.
July to Sep. 2000:	University of Bayreuth, DAAD Senior Research visit Award in Germany.
Oct. to Dec. 2003:	Visiting Professor, Lehrstuhl für Pflanzenphysiologie, University of Bayreuth, Germany. Conducted Research and Lectures on Ethnobotany and Plant Biodiversity. Supervision of Dr. Regina A.O. Nyunja, PhD. Student registered at Maseno University, Kenya.
Jan 2003 to date:	Consulting Researcher, Japanese International Cooperation Agency (JICA) / African Institute for Capacity Building (AICAD) on Nerica Rice in Kenya.
Nov. to Dec. 2005:	Visiting Professor, Lehrstuhl für Pflanzenphysiologie, University of Bayreuth, Germany. Conducted Seminars and Lectures on Ethnobotany and Plant Biodiversity.
Aug. to Dec. 2006:	Visiting Professor, International Cooperation Centre for Agricultural Education, Nagoya University, Japan. Conducted Research on drought responses by NERICA rice Cultivars.
July to Aug. 2007:	Visiting Professor, Lehrstuhl für Pflanzenphysiologie, University of Bayreuth, Germany. Conducted Seminars and Lectures on Ethnobotany and Plant Biodiversity. Supervision of Mr. Phaniel S. Arwa, PhD. Student registered at Maseno University, Kenya.

ACADEMIC AWARDS AND FUNDING

1983 – 1985	Kenyatta University Postgraduate Studies Award for M.Sc. studies at the University of Nairobi.
1987 – 1989	United Kingdom, Overseas Development Administration, Technical Cooperation Award for Doctor of Philosophy (D.Phil.) studies at the University of Sussex.
1987 – 1989	German Academic exchange for Africa (DAAD) in-Country research Award for D.Phil. studies (Thesis Research in Kenya).
1991 –1996	DFG, Germany International Technical Cooperation Research Award for Afro-Alpine vegetation analysis in Mount Kenya. Studies completed and report submitted. Award value KES 6 million and a 4-wheel drive research vehicle, still serviceable at 124,000Km in 16 years and well maintained.
1995 – 1996	Institute of Research and Postgraduate Studies (IRPS) Research Award for Water stress studies on rainfed rice. Study completed and report submitted and presented at 5 th KARI Scientific Conference 1996. Award value KES 100,000/=.
1996 –1997	African Highland Initiative (AHI) Research Award for plant nutrition studies using <i>Tithonia diversifolia</i> . Study completed and results presented at 6 th KARI Scientific Conference 1998. Award value KES 120,000/=.
1996 –1998	National Council for Science and Technology (NCST) Research Award on Agronomic studies on rainfed rice in Western Kenya. Study completed and report submitted and presented at Nairobi International Agricultural Show 1997. Award value KES 200,000/=.

- 1999 –2000** Institute of Research and Postgraduate Studies (IRPS) Research Award for Physiological studies on rainfed rice. Study completed and report submitted and Results submitted to MJEAS for Publication. Award value KES 80,000/=.
- 2002 – 2003** Mission Zentrale, Bonn, Germany development grant for 4 units-Staff houses at St. Mary's school for the deaf, Nyang'oma. Grant value KES 6.0 million.
- 2003 -2004** Community Development Trust Fund, development grant for 8 classroom block at Mbeka Primary school. Grant value KES 3.5 million.
- 2001 – 2004** German Federal Ministry of Education and Research **(BMB+F): BIOTA - East Africa, E12**
Vegetation, Regeneration and Ethno-botany of East African Mountain Forests; Establishment of a Botanic Garden and glasshouse at Maseno University, Kisumu, Kenya – phase 1. Award value Euro € 123.347,00.
- July 2005** Lake Victoria Research Initiative (VicRes) Physiological and Agronomic Development of Rainfed Rice in Lake Victoria Region. Award Value US\$ 49,000
- March 2005** Japan International Cooperation Agency (JICA) / African Institute for Capacity Development (AICAD). NERICA Adaptability trials in Western Kenya – University Botanic Garden, Maseno with emphasis on Physiological drought of NERICA varieties. Award Value Japanese yen ¥ 4,062,500.00
- 2005 – 2007** German Federal Ministry of Education and Research **(BMB+F): BIOTA - East Africa, E1**
Vegetation, Regeneration and Ethnobotany of East African Mountain Forests; Development of Conference and research facilities in the Botanic Garden at Maseno University, Kisumu, Kenya – phase 2. Award value Euro € 217.660,00.
- 2006 – 2007** Japan Technical Cooperation, Japan Embassy, Nairobi, Development grant for 13 classroom-block and pupils sick-bay at Lwore Primary School. Grant value KES 6.5 million.
- July 2007** Lake Victoria Research Initiative (VicRes) Physiological and Agronomic Development of Rainfed Rice in Lake Victoria Region. Award Value US\$ 45,000.
- 2007 – 2010** German Federal Ministry of Education and Research **(BMB+F): BIOTA - East Africa, E1**
Vegetation, Regeneration and Ethnobotany of East African Mountain Forests; Development of Conference and research facilities in the Botanic Garden at Maseno University, Kisumu, Kenya – phase 3. Award value Euro € 66,000.
- January 2008** International Foundation for Science, Productivity of Bambara groundnuts for Food Security in Western Kenya. Award Value US\$ 53,000.

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EMPLOYMENT RECORD:

- May 1983 to June 1986:** Graduate Science Teacher, (Biology and Chemistry) at Nyanchwa High School, Kisii and Senior Chief Koinange High School, Kiambu.
- July 1986 to December 1988:** Tutorial fellow, Department of Botany, University of Nairobi.
- January to October 1989:** Assistant Lecturer, Department of Botany, University of Nairobi.
- November 1989 to October 1991:** Lecturer, Department of Botany, University of Nairobi.
- November 1991 to May 1993:** Lecturer, Department of Botany, Maseno University College.
- June 1993 to July 1996:** Senior Lecturer, Department of Botany, Maseno University College.
- August 1996 to September 2001:** Associate Professor, Department of Botany, Maseno University.
- October 2001:** **Professor of Plant Physiology**, Department of Botany, Maseno University.
- June 2001 to June 2010:** Established University Botanic Garden, Maseno, as Research Infrastructure and Centre for Ethno-botanical Plant Conservation in the Tropics at a cost of KES 35 million of self sourced research funds from Federal Ministry of Education and Research [BMB+F], Germany. **The garden is a centre piece development for the university and compares to none in this region.** It is a member of Botanic Gardens Conservation International with headquarters at the Royal Botanic Gardens, Kew, U.K.
- June 2004 to June 2008:** Dean (Elected), Faculty of Science, Maseno University.

UNIVERSITY TEACHING EXPERIENCE

- Twenty-five years of University Teaching and Research at undergraduate and postgraduate level.
- Sixteen Undergraduate Projects Supervised.
- Fourty eight Postgraduate Students at M.Sc. level Supervised.
- Nineteen Postgraduate Students at Ph.D. level Supervised.
- Twenty-five Postgraduate, Theses Externally Examined.
- External Examiner, Department of Botany, Makerere University, Uganda.

RESPONSIBILITIES AT THE UNIVERSITY

1. Teaching of both undergraduate and postgraduate students at the Department of Botany since July 1986.
2. Member, of the Faculty of Science Board, University of Nairobi 1986 - 1992.
3. Member, Faculty of Science Brochure Committee, University of Nairobi 1987 -1992.
4. In-charge, Department of Botany Annual Report, University of Nairobi 1989 - 1992.
5. In-charge, Department of Botany, Greenhouse and Botanical garden, University of Nairobi 1989 -1992.

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6. Chairman, Department of Botany, Maseno University November 1991 to July 2001.
7. Chairman, Maseno University College, Shows and Exhibitions Committee 1993 - 1997.
8. Maseno University College Liaison and implementing officer on World Bank (IDA) Credit 2309-KE for Kenyan Public Universities Investment Project 1993 - 2000.
9. Maseno University College Representative to Planning, Programming, Budgeting and Finance Sub-committee at the Commission for Higher Education 1993 - 1997.
10. Faculty of Science representative to the Institute of Research and Postgraduate Studies 1992 - 1998.
11. Maseno University College, Academic Board representative to Moi University Senate 1993 - 2000.
12. Chairman, Universities Performance Improvement Team (UPIT) [Academic] – Maseno University 2000.
13. Member of Maseno University Graduation, inauguration and installation Committee, with special assignment as “In-charge of Graduation Pavilion Construction and Chancellor’s robbing room renovation” 2000 - 2001.
14. Development of the Department offices and Laboratory Space from under utilized buildings 1991-2001.

PROFESSIONAL SOCIETIES AND ACTIVITIES:

1. Member of Wildlife Clubs of Kenya.
2. Member of Agricultural Society of Kenya.
3. Member of Crop Science Society of Kenya.
4. Member of International Crop Science Society.
5. Member, Kenya DAAD Scholars Association and Treasurer Maseno University Chapter.
6. Member, Kisumu Museum Advisory Board
7. Member, Board of Governor for four secondary Schools in Bondo District.
8. Member, National Geographic Society of United States.
9. Member, International Rice Technical Working Group, United States of America Chapter.
10. Examiner to Kenya National Examinations Council - Biology paper 2 since 1984 – 1986.
11. Chairman, University of Sussex and Brighton Polytechnic Kenya Students Association and Students representative to Kenya High Commission in London, United Kingdom (1987 to 1989).
12. Secretary, Organizing Committee for "Sub-Regional Symposium on Conservation of the Biodiversity of Lake Victoria and other East African Lakes, Kisumu, Kenya 17th - 22nd January, 1993.
13. A referee to the African Academy of Sciences - *Journal of Discovery and Innovation*.
14. A referee to the *Maseno Journal of Education, Arts and Science (MJEAS)*.
15. Founder Member African Botanic Gardens and Conservation Network [AFBGCN]

PUBLICATIONS

A) Inaugural Lecture

Onyango, J.C. 2006. **Rice, a Crop for Wealth Creation: Productivity and Prospects in Kenya’s Food Security. Professorial Inaugural Lecture Nr. 2 – Presented at Kisumu Hotel – Maseno University, 24, May 2006, Kisumu, Kenya.**

A₂) Theses:

Onyango, J.C. 1985. The mechanisms of drought tolerance and its effect on yield of upland rice (*Oryza sativa* L.) varieties grown in Kenya. M.Sc. Thesis, University of Nairobi, Kenya.

Onyango, J.C. 1989. Some effects of water deficit on rainfed landraces of rice (*Oryza sativa* L.) indigenous to Kenya. D.Phil. Thesis, University of Sussex, Brighton, United Kingdom.

B) Refereed Journal papers:

- Flowers, T.J. and **J.C. Onyango** 1990. The effects of salinity on growing rice (*Oryza sativa* L.): Cereals for the future. *Biological Sciences Review* **2(4)**: 27-30.
- Abukutsa, M.O., J.A. Chweya, B.O. Mochoge and **J.C. Onyango**. 1993. Effect of nitrogen sources and storage on thiocyanate content of Kale leaves (*Brassica oleracea* var. *acephala*. *Discovery and Innovation* **5**: 367-71.
- Abukutsa, M.O., J.A. Chweya, B.O. Mochoge and **J.C. Onyango**. 1994. Effect of nitrogen sources and storage method on nitrate content of Kale (*Brassica oleracea* var. *acephala* D.C. leaves. *E. Afri. Agric. For. J.* **60(1)**: 35-40.
- Umay, G.O., **J.C. Onyango**, J.M. Macharia, C.J. Stigter and C.L. Coulson. 1994. The distribution of the active roots of *Cassia siamea* Lam. and *Zea mays* L. (cv Katumani composite B), in alley cropping. *Maseno J. Educ. Art. Sci.* **2(1)**: 103-114.
- Otieno, J.H., B. Amadalo, K. Gathumbi and **J.C. Onyango** 1996. Ethnobotanical survey of indigenous trees and shrubs with Agroforestry potential in three Districts of Western Kenya. *ICRAF Technical Bulletin* **15**: 148-151.
- Onyango, M.O.A., **J.C. Onyango**, J. Bashir, A. Niang' and H.M. Obiero 1999. Response of some traditional vegetables in Western Kenya to organic and inorganic fertilizer application. Institute of Research and Postgraduate Studies Siminars, Maseno University College. *Reprint Series* **3**:1-13.
- Onyango, J.C.** and M.O.A. Onyango 1999. Use of plant growth regulators as an evaluation tool in rainfed rice research and production. Institute of Research and Postgraduate Studies Siminars, Maseno University College. *Reprint Series* **3**:14-23.
- Umay, G.O., J.M. Macharia, **J.C. Onyango**, C.J. Stigter and C.L. Coulson. 1999. Competition of the active roots of *Cassia siamea* Lam. and *Zea mays* L. (cv Katumani composite B), in alley cropping trials in Semi-arid, Kenya. *Journal of Environmental Sciences* **11**: 462-467.
- Netondo, G. W., **J. C. Onyango**, J. M. Macharia, C. J. Stigter and C. L. Coulson 2001. Potential of competition for water between *Cassia siamea* Lam. and *Zea mays* L. (cv. Katumani composite B). in alley cropping under semi-arid conditions. *Maseno J. Educ. Art Sci* **3(2)**:128-137.
- Onyango, J.C.** and M.O.A. Onyango 2001. Characteristics of root system and water uptake in two cultivars of rice (*Oryza sativa* L). *Maseno J. Educ. Art. Sci.* **3(2)**: 138-149.
- Onyango, M.O.A.** and J.C.Onyango 2002. Influence of organic and inorganic sources of fertiliser on Growth and leaf yield of kale (*brassica oleraceae* var.*acephala* D.C.). *Journal for Agriculture, Science and Technology.* **4(1)**: 38-51.
- Owuor, B.O., S. Gudu and **J.C. Onyango** 2002. A Seedling inoculation test for screening *Sesbania sesban* for resistance to the seedling defoliator *Mesoplatys ochroptera*. *Agroforestry Systems.* **54**: 193-196.
- Netondo, G.W., **J.C. Onyango** and E. Beck 2004. Sorghum and Salinity: I. Response of Growth, water Relations and Ion Accumulation to NaCl Salinity. *Crop Science.* **44(3)**: 797-805.
- Netondo, G.W., **J.C. Onyango** and E. Beck 2004. Sorghum and Salinity: II. Gas exchange and chlorophyll fluorescence of sorghum under Salt Stress. *Crop Science.* **44(3)**: 806-811.
- Opande G. O., **Onyango J. C.** and Wagai, S. O. 2004. Lake Victoria: The water hyacinth (*Eichhornia crassipes* [Mart.] Solms.), its socio-economic effects, control measures and resurgence in the Winam gulf. *Limnologica* **34**: 105-109.
- Mwai, G.N., **J.C. Onyango** and M.O.A. Onyango 2004. Effect of salinity on growth and leaf yield of spiderplant (*Cleome gynandra* L.). *African Journal of Food, Agriculture, Nutrition and Development (AJFAND)*. Online journal. www.ajfand.net **4:2** . ISSN 1684-5378
- Mwai, G.N., **J.C. Onyango** and M.O.A. Onyango 2007. Taxonomic Identification and Characterization of African Nightshades (*Solanum* L. Section *Solanum*). *African Journal of Food, Agriculture, Nutrition and Development (AJFAND)*. Vol. 7, No. 4, pp.6

- Arwa, P.S., **J.C. Onyango** and R.O. Nyunja, 2008. Phytochemical Compounds and Antimicrobial Activity of Extracts of Rhoicissus Plant, *Rhoicissus revolli* (Planch). *Plant Sciences Research* **1(3)**: 68-73.
- Sikolia, S., E. Beck, J.I. Kinyamario, **J.C. Onyango** and G. Ouma 2008. $\delta^{13}\text{C}$ values of the Centrospermeae Species and Their Ecological Implications in the Semi Arid Conditions *International Journal of Botany*- **4(4)**: 421-429. *ISSN 1816-4919*.
- Sikolia, S. and **J.C. Onyango**, 2009. Female Gametophyte in Two Kenyan Species of *Inversodicraea* – (Podostemaceae). *Research Journal of Botany*. **4(1)**: 29-39 -*ISSN 1816-4919*.
- Sikolia, S., **J.C. Onyango**, E. Beck and J.I. Kinyamario 2009. The Distribution of C_3 and C_4 Photosynthetic Species of the Centrospermeae Along an Altitudinal Gradient in Western Kenya. *International Journal of Botany*- **4(5)**: 22 - 30. *ISSN 1816-4919*.

B₂) Submitted to Journals for Publication

- Abukutsa-Onyango M.O. and J.C. Onyango. (In press).** Conservation and seed production of African leafy vegetables at Maseno University. Submitted to African Crop Science Society Journal.
- Onyango, J. C. and M.O.A. Onyango (In press).** Effect of water deficit on some Physiological Characters of two cultivars of rice. *Discovery and Innovation*. [Acc. 796].
- Onyango, J. C. ____.** Physiological and Agronomic responses of some growth parameters of rainfed rice (*Oryza sativa* L.) (Submitted to): *Maseno J. Educ. Art. Sci.*
- Onyango, J.C. and M.O.A. Onyango ____.** Growth and yield of rainfed rice (*Oryza sativa* L.) in relation to water deficit. (Submitted to): *Maseno J. Educ. Art. Sci.*
- Onyango, J. C. ____.** The use of polyethylene glycol to maintain uniform and prolonged water stress in rice nutrient culture. (Submitted to): *E. Afri. Agric. For. J.*

C) Book

- Onyango, J.C. and M.O.A. Onyango ____.** Plant Growth, Hormones and Mineral Nutrition. (University level Manuscript in preparation).

D) Refereed Conference Proceedings:

- Onyango, J.C.** 1988. Effect of water stress on morpho-physiological characters of rice (*Oryza sativa* L.). **In:** Crop Science Society of Kenya First Symposium Proceedings, July 1988. Nairobi, Kenya.
- Onyango, J.C.** 1989. Rate of elongation and water uptake along the selected zones of intact roots of rice. **In:** *Experimental Biology Society, 40th Symposium* at the University of Edinburg, United Kingdom. Pp. 194 – 198.
- Onyango, J.C.** 1993. Production of rainfed landraces of rice (*Oryza sativa* L.) in the Lake Victoria Basin in Kenya. A possible future source of animal feeds. **In:** *Sub-regional Symposium on Conservation of the Lake: Application of Biotechnology and Aquaculture*, 17th to 22nd January, 1993. Kisumu, Kenya.
- Onyango, J.C.** 1997. Effects of water stress on growth of rainfed rice (*Oryza sativa* L.). **in:** P.O. Fungoh and G.C.O. Mbadi eds. *Proceedings of the 5th KARI Scientific Conference*, 14th to 16th October 1996, KARI Headquarters, Nairobi. Pp. 1-15.
- Onyango, M.O.A., and **J.C. Onyango** 1997. Effect of nitrogen nutrition on the on set of bulbing in two onion (*Allium cepa* L.) cultivars. *Proceedings of the 1st National Horticulture Seminar*. Pan Afric Hotel. Nairobi - Kenya 30th - 31st January, 1997 pp. 154-159.
- Onyango, J.C. and M.O.A. Onyango** 1998. Upland rice (*Oryza sativa* L.) in Kenya. **in:** *Proceedings of 27th Rice Technical Working Group Meeting*, March 1st - 4th, 1998 Reno/Sparks, Nevada, U.S.A. pp. 193.

- Onyango, M.O.A., and **J.C. Onyango** 1999. The effect of organic and inorganic sources of fertilizers on growth and yield of *Brassica oleraceae* var. *acephala* **in: Proceedings of the 6th KARI Scientific Conference**, 9th to 13th November 1998, KARI Headquarters, Nairobi. Pp. 351-361.
- Onyango, J.C.** and M.O.A. Onyango 1999. Potentials for rainfed rice (*Oryza sativa* L.) production and germplasm development in Kenya. **in: Proceedings of the 6th KARI Scientific Conference**, 9th to 13th November 1998, KARI Headquarters, Nairobi. Pp. 562-566.
- Onyango, J.C.** and M.O.A. Onyango 1999. Phytohormones action system: Gibberellins communication. **in: Proceedings of Unesco-Icro International Training Course**, February 8th - 20th, 1999, Mombasa, Kenya.
- Onyango, M.O.A., **J.C. Onyango**, J. Bashir, A. Niang' and H.M. Obiero 1999. Effect of organic and inorganic sources of fertilizer on growth and yield of five priority vegetable crops in Western Kenya. **In: Proceedings of the 2nd National Horticulture Seminar**, JKUAT, Nairobi Kenya. pp. 20-29. **ISBN:9966-923-61-6**
- Onyango, M.O.A., **J.C. Onyango**, J. Bashir, A. Niang' and H.M. Obiero (1999). Response of some African traditional vegetables organic and inorganic fertilizer application. **In: Proceedings of the African Women in Science and Engineering (AWSE) Workshop in Nairobi-Kenya**. November 29th to 3rd December, 1999. **ISBN:9966-923- 63-2**
- Onyango, J.C.** 2000. Sustainable environmental Management and agricultural production as a poverty alleviation strategy. **In: CSOLVE Workshop on 'Sustainable Environmental Management for Poverty Alleviation in the Lake Victoria Region'** 27th to 29th March, 2000. Maseno University, Kenya.
- Onyango M.O.A. and **J.C. Onyango** 2000. Influence of organic and inorganic sources of fertiliser on leaf yield of *Brassica oleraceae* var. *acephala* **In: The 3rd International Crop Science Congress 2000**. ICSC. 17th -22nd August 2000. CCH-Congress Centrum Hamburg, Germany. European Society for Agronomy. Pp. 178.
- Onyango, J.C.** and M.O.A. Onyango 2000. Effect of plant growth regulators on rainfed rice production in Kenya. **In: The 3rd International Crop Science Congress 2000**. ICSC. 17th -22nd August 2000. CCH-Congress Centrum Hamburg, Germany. European Society for Agronomy. Pp. 192.
- Onyango, J.C.** 2001. Procedures for research proposal writing in plant sciences. **In: Institute of Research and Postgraduate Studies Project Proposal Writing Workshop** 25th - 27th April 2001. University Boardroom, Maseno University, Kenya.
- J.C. Onyango** 2002. Water Hyacinth (*Eichhornia crassipes*) Management and utilization in the Lake Victoria region. **In: Wesonga et al. Proceedings of the Sustainable Horticultural Production in the tropics**. Jomo Kenyatta University of Agriculture and Technology, Nairobi - Kenya 6th - 9th August 2002.
- J.C. Onyango**, R.W. Bushmann and M.O.A. Onyango 2002. The university botanic garden, maseno: a teaching centre for biodiversity management and germplasm conservation. **in: Proceedings of African Botanic Gardens Congress: "Partnerships and linkages"** Durban Botanic Gardens, South Africa. 24th to 30th November 2002. [Publication from Biota initial phase project]. Pp 23-26.
- Mwai, G.N., **J.C. Onyango** and M.O.A Onyango (2002) .Potential Salinity Resistance in Spiderplant (*Cleome gynandra*). **In: Proceedings of the Second Horticulture Seminar on Sustainable Horticultural Production in the tropics**, 6th -9th August 2002. Jomo Kenyatta University of Agriculture and Technology, JKUAT, Juja, Kenya. Eds: Wesonga, J.M. T. Losenge, G.K. Ndung'u, K. Ngamau, J.B.M. Njoroge, F.K. Ombwara and S.G. Agong, A. Fricke, B. Hau and H. Stützel. pp 39-46. **ISBN:9966-923-27-6**.
- J.C. Onyango** 2003. The student-Supervisor Contract: What are the Obligations and who is the Referee? **In: The DAAD Workshop proceedings: Towards Harmonisation of Postgraduate Training Through Improved Student-Supervisor Relationships**. Maseno University. 24th - 25th April 2004. Pp.142-143.
- J.C. Onyango**, R. A.O. Nyunja and R.W. Bussmann. 2003. Conservation of Biodiversity in the East African Tropical Forest. **In: Proceedings of The Second Congress of Conservation of Biodiversity in the Andes and the Amazon Basin and the Fourth Ecuadorian Botanical Congress**. Universidad Técnica Particular de Loja, Ecuador. August 25th to 30th 2003. [Publication from Biota initial phase project]

- J.C. Onyango**, and M.O.A. Onyango 2003. African Leafy Vegetables: Production and Conservation for efficient Utilization. **In:** *Proceedings of the 3rd Horticultural Association of Kenya Workshop on Sustainable Horticultural Production in the Tropics*. Maseno University, Kenya. November 26th to 29th 2003.[Publication from Biota initial phase project]. **3:** 196 – 98. **ISBN: 9966-758-9.**
- J.C. Onyango.** 2003. The Botanic Gardens: Conservation of Biodiversity and sustainable utilization of its components. **In:** *Proceedings of Sustainable use and Conservation of Biological Diversity: “A Challenge for Society”*. House of World Cultures, Berlin, Germany. December 1st to 4th 2003. [Publication from Biota initial phase project]
- J.C. Onyango** and M.O. Abukutsa Onyango, 2004. Professional Responsibilities in Research: Capacity building and relevance for sustainable Development. **In:** *The First Workshop on Research Ethics for DAAD Scholars*. Maseno University. 12th February 2004.
- J.C. Onyango**, Erwin Beck, R.W. Bussmann, and M.O. Abukutsa Onyango. 2004. University Botanic Garden, Maseno Conserving Biodiversity in the Tropics for Future Biotechnology Needs. **In:** *The 17th Meeting of German Society for Tropical Ecology*. Biodiversity, and dynamics in tropical ecosystems. University of Bayreuth, Germany. February 18th to 20th 2004.
- J.C. Onyango**, R.W. Bushmann and M.O.A. Onyango 2004. University Botanic Garden, Maseno and Ethnobotanical Issues in Biodiversity Conservation in the Tropics. **In:** *The 17th Meeting of German Society for Tropical Ecology*. Biodiversity, and dynamics in tropical ecosystems. University of Bayreuth, Germany. February 18th to 20th 2004.
- J.C. Onyango**, and M.O.A. Onyango 2004. The role of University Botanic Gardens in Environmental and Ethnobotanical issues in Conservation. **In:** *Proceedings of the 2nd World Botanic Gardens Congress*. Botanic Institute of Barcelona, Spain. April 17th to 22nd 2004. [Publication from Biota initial phase project].
- Abukutsa-Onyango, M.O., R.W. Bushmann, and **J.C. Onyango**, and M.O.A. Onyango 2005. Relevance of Indigenous Vegetables Knowledge in Community to Biodiversity Conservation in Western Kenya. **In:** *Proceedings of the 4th Horticultural Association of Kenya Workshop on Sustainable Horticultural Production in the Tropics*. Moi University, Kenya. November 24th to 27th 2004.[Publication from Biota initial phase project]. **4:** 320 – 21.
- Onyango, J.C.** and M.O. Abukutsa-Onyango **2005.** Role of Botanic Gardens in Horticultural Crops Germplasm Production and Conservation in Western Kenya. **In:** *Proceedings of the 5th Horticultural Association of Kenya Workshop on Sustainable Horticultural Production in the Tropics*. Egerton University, Kenya. November 23th to 26th 2005. [Publication from Biota initial phase project]. **4:** 320 – 21
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¹ *JCO - Educated in Kenya, Trained in United Kingdom, Skilled in United States, Perfected in Germany and Polished in Japan = Passion to Serve. 15January2009*

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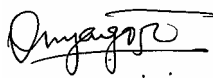
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SPECIALIZATION FIELD

- Crop plant stress physiology, agronomic and cultural methods of producing grain cereals with emphasis to rainfed rice (*Oryza sativa* L.)
- Economic use of wetlands for food production at minimum input level technology
- Adaptive technology in traditional (indigenous) vegetables and crops plants production and usage
- Biological control of water Hyacinth through its physiological reproductive biology and predator/prey responses.
- National impartial development Strategy of Infrastructure and Human Resources.

RESEARCH INTEREST:

1. Ecosystem Biodiversity and indigenous knowledge conservation for sustainable development.
2. Screening for Agronomic potential of the indigenous rainfed landraces of rice (*Oryza sativa* L.) and traditional vegetables germplasm collection in Kenya.
3. Root distribution pattern in rainfed rice as a mechanism for drought resistance.
4. Yield evaluation of three rice landraces indigenous to Kenya compared with commercial paddy varieties grown in Kenya.
5. Eco-physiological and Agronomic evaluation of rainfed landraces of rice (*Oryza sativa* L.) indigenous to Kenya.
6. Ecological systematics and vegetation analysis of high mountains of Kenya: Mount Kenya, Mount Elgon and Mau forest.
7. Croton species - an indigenous tree with great potential in Kenya as lubricants and medicinal.

Signed: 
Prof. J C Onyango

Dated: January 15th, 2009.

REFEREES:

1. Prof. Dr. Erwin Beck
Lehrstuhl für Pflanzenphysiologie
Universität Bayreuth
Universitätsstraße 30
95440 BAYREUTH, GERMANY
E-Mail: Erwin.Beck@uni-bayreuth.de

2. Dr Richard Dunand
Louisiana State University
Agricultural Center
Rice Research Station
CROWLEY, LA 70527-1429 U.S.A.
E-Mail: rdunand@agctr.lsu.edu

3. Prof. Shuichi Asanuma
ICCAE - Nagoya University
Furo-cho, Chikusa-ku
Nagoya 464-8601,
JAPAN
E-mail: asanumas@agr.nagoya-u.ac.jp

4. Prof. Akira Yamauchi
Graduate School of Bioagricultural Sciences
Furo-cho, Chikusa-ku
Nagoya, 464-8601,
JAPAN
E-mail: ayama@agr.nagoya-u.ac.jp

5. Prof. Mary O. Abukutsa Onyango
Department of Horticulture
Jomo Kenyatta University of Agri.
P.O. Box 62000 – 00200, Nairobi,
KENYA.
E-mail: mabukutsa@yahoo.com

6. Prof. T.J. Flowers
School of Biological Sciences
University of Sussex
Brighton, BN1 9QG, United
KINGDOM
t.j.flowers@sussex.ac.uk