**CURRICULUM VITAE**

**A. PERSONAL**

**Name PATRICK AYIECHO OLWENY**

**Mailing Address** P.O. Box 3834 - 40100 KISUMU

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 **E-Mail**  poayiecho@yahoo.com

**Date of Birth** 4th March 1953

**Sex** Male

**Marital Status** Married

**Nationality** Kenyan

**Profession** Agriculturalist/Plant Breeder/Geneticist

**Previous Employment Position**

1. Professor Department of Plant Science, Maseno University, December, 2017 – present.
2. Professor Department of Plant Science, Maseno University, July 2014 – January 2017.
3. Associate Professor, Department of Plant Science and Crop Protection, University

 of Nairobi, May 2013 -June 2014.

1. Assistant Minister for Education, Government of Kenya, 2008 -2013.
2. Member of Parliament for Muhoroni Constituency, Kenya National Assembly, 2003 - 2013.
3. Professor, Department of Horticulture, Maseno University, 2001 2002

**B. RELEVANT KEY QUALIFICATIONS**

 I am a trained agricultural scientist with almost thirty years' experience in agriculture and related activities. Apart from teaching agricultural science subjects at the University of Nairobi and Maseno University, I have had ample experiences and interactions with various farming communities and agriculture related establishments in Kenya. My early agricultural research activities and surveys on Kenyan agriculture involved interactions with agricultural extension workers and farmers in various parts of Kenya. I have worked with women farmers in some districts of Kenya, including Kericho, Siaya, Kisumu, Kakamega and dry areas of Baringo and Laikipia districts. This was in relation to involvement of women in agricultural production. Research activities on food production in connection with Child Survival and Development Project were also concentrated in dry-land areas of Baringo district. My dry-land agricultural research has been extended to eastern Kenya where I was involved in development of sesame and sorghum varieties adapted to the dry-land conditions and northern Rift Valley where I was also involved in an agro-forestry project to identify shrubs to be grown using surface run-off for the livestock of arid Turkana district. I have conducted research to develop sesame varieties for medium potential western Kenya and Kenyan coastal lowlands. The sesame research involved the development of production package for the respective agro-ecological zones. Following the sesame research we produced a Sesame Production Handbook for use by extension workers in Kenya. I have also been involved in screening of sorghum for *Striga* resistance for Nyanza Province (in western Kenya). My other research undertakings involved evaluation of promising sesame mutant genotypes we developed and evaluation of sesame as trap crop for *Striga* control in maize. My sesame research efforts have led to development of five promising cultivars, two of which are mutant cultivars. I trained several sesame agronomists and breeders during my research and teaching activities. I conducted on-farm trials for sesame, which involved training farmers on better sesame production methods and extraction of sesame oil. I conducted research and surveys on other edible vegetable oil crops and gave recommendations towards their improved production in various agro-ecological conditions of Kenya (namely, high potential, medium potential and low potential agricultural production conditions). I conducted research on oil crops from 1987 until 2002. I also conducted research on malting barley, grain amaranths and field beans as well. My active role in research is evidenced by several publications. I visited several countries in connection with my research and teaching activities as a University scholar, namely, USA, India, China, Pakistan, Germany, Turkey, Israel, Uganda, Mali, Brazil, China, Austria, Thailand and Tanzania. As a University of Nairobi academic staff member, I taught several hours of principles of genetics, population and quantitative genetics, plant breeding, crop husbandry and general aspects of East African agriculture. These subjects were being taught to various classes including undergraduate B.Sc. (Agriculture) and B.Sc. (Engineering) classes, M.Sc. (Plant Breeding), M.Sc. (Plant Pathology) and M.Sc. (Horticulture) classes in the University of Nairobi, Jomo Kenyatta University of Agriculture and Technology and Maseno University. I trained several graduate (M.Sc. and Ph.D.) students. I was an external examiner for the Department of Agronomy at Egerton University. I also held the post of the Coordinator for International Relations and Interlink at Maseno University. This position involved coordination of local and international linkages the university was involved in. I sourced for information relating to potential linkages and made efforts to have new linkages created and institutionalised. I successfully managed several research projects funding which I obtained from various donors/partners. I also did a consultancy work with Lake Basin Development Authority for assessing agronomic activities and giving recommendations towards production of good quality rain fed rice seed in western Kenya. I was the founding Secretary-General of Plant Breeders Association of Kenya from (1996 to 2000) and represented the Association in Seed Trade Association of Kenya (2000). I have also been involved in community based development activities like mobilising self-help women groups, youth groups and welfare groups for the purpose of raising funds for community development projects. Elected as Member of Parliament (9th Parliament of the Republic of Kenya) for Muhoroni Constituency in December 2002. Re-elected as Member of Parliament (10th Parliament of the Republic of Kenya) for Muhoroni Constituency in December 2007 and appointed Assistant Minister for Education in the Government of Kenya in April 2008.I visited France, Belgium, Great Britain, South Africa, Mauritius, Uganda, Tanzania, Lesotho, Botswana, Zambia, Mali, Senegal, Tunisia, United Arab Emirates, Mexico, Indonesia, United States of America, France, Germany, The Netherlands and Italy in relation to my activities as a Member of Parliament and Assistant Minister for Education.

#### C. EDUCATION

**1981 – 1985 Ph. D. (Genetics)**.

 Genetics Department,

 University of California, Davis, California. U.S.A.

***Thesis*:** Quantitative studies in two grain amaranth populations using two selection methods.

**1978 – 1980**  **M.Sc. (Plant Breeding)**.

 Department of Crop Science

 University of Nairobi, Kenya.

***Thesis:*** Genetic analysis of yield traits and malting quality characters in barley (*Hordeum vulgare* L)

**1975 – 1978** **B. Sc (Agriculture)** University of Nairobi Faculty of Agriculture, Nairobi, Kenya.

**1973 – 1974** St. Paul's Amukura High School, Busia, Kenya.

**1969 – 1972** Nyabondo Secondary School, Kisumu, Kenya

**1961 – 1968** Magare Primary School, Kisumu, Kenya

**D. HONOURS/AWARDS**

**2010** Awarded the honour of the ***First Order of the Moran of the Golden Heart of Kenya* (MGH)**by the President of Kenya.

**1978** Obtained ***Gandhi Smarak*** prize of the University of Nairobi of 1977/1978 academic year for being the best final year B.Sc. (Agriculture) student.

**E. SCHOLARSHIPS/FELLOWSHIPS**

**1993 – 2003** Obtained several German Academic Exchange Service (DAAD) fellowships to visit a number of German research and academic institutions to advise /supervise Kenyan students on DAAD sponsorship.

**1999** Obtained International Atomic Energy Agency Fellowship for scientific visits to two institutes in India, Bhabha Atomic Research Centre and Indian Agricultural Research Centre and two institutes in Pakistan, Nuclear Institute of Agriculture and Nuclear Institute of Agriculture and Biology.

**1981** Given a five-year IDA/IBRD scholarship for Ph.D. studies in Genetics Department at the University of California, Davis, U.S.A.

**1978** Given a two-year University of Nairobi/Dutch Government scholarship to pursue M.Sc. (Plant Breeding) degree in the Department of Crop Science at the University of Nairobi.

**F. EMPLOYMENT/PROFESSIONAL QUALIFICATIONS**

**Dec. 2017 to Date** Professor, Department of Applied Plant Sciences, MasenoUniversity, Kenya

**July 2014 – Jan, 2017** Professor, Department of Applied Plant Sciences, MasenoUniversity, Kenya.

**May 2013–June 2014** Associate Professor, Department of Plant Science and Crop Protection, University of Nairobi.

**Mar. 2008 – April 2013** Assistant Minister for Education, Ministry of Education, Government of Kenya

**Jan. 2003 – Jan. 2013** Member of Parliament for Muhoroni Constituency, Kenya National

 Assembly

**Sept. 2001–Nov. 2002** Professor, Department of Horticulture and Coordinator for International

 Relations and Interlink, Maseno University

**Dec. 2000 – Aug. 200** Associate Professor, Department of Horticulture, Coordinator for

 International Relations and Interlink, Maseno University.

**May 1997 – Nov 2000** Associate Professor, Department of Crop Science, University of Nairobi.

**1989 - April 1997** Senior Lecturer, Department of Crop Science, University of Nairobi.

**1985 - 1989** Lecturer, Department of Crop Science, University of Nairobi, Kenya.

**1981 - 1985** Tutorial Fellow in Department of Crop Science, University of Nairobi,

**July 1978- Oct. 1978** Research Officer, Ministry of Agriculture, Government of Kenya.

**Feb.1975 – Sept. 1975** Teacher in Nyakoko Secondary School, Kisumu.

***RESPONSIBILITIES/ACTIVITIES IN THE UNIVERSITY***

***(i)******Teaching***

# *At University of Nairobi*

**1981- 1985** (1) Assisted in teaching of genetics and plant breeding to undergraduate and graduate students

 (2) Proceeded for Ph.D. studies at the University of California, Davis, U.S.A. Assisted in teaching of genetics and plant breeding to the undergraduate and graduate students at the University of California, Davis.

**1985 - 1989** (1) Introduction to Agriculture. For 1st Year B.Sc. Agriculture.

 (2) Quantitative and Population Genetics. For M.Sc.(Plant Breeding).

 (3) Plant Breeding. For M.Sc. (Plant Pathology).

 (4) Principles of Plant Breeding. For 2nd Year B.Sc. Agriculture.

 (5) Crop Science. For 1st Year B.Sc. (Agric. Engineering).

 (6) Principles of Crop Production. For 2nd Year B.Sc. (Agric. Engineering).

**1989 - 2000** (1) Plant Breeding. For M.Sc. (Plant Breeding), M.Sc. (Horticulture) and M. Sc. (Plant Pathology)

 (2) Quantitative/Population Genetics. M.Sc. Plant Breeding).

1. Principles of Plant Breeding. For 2nd Year, 3rd Year, 4th Year B.Sc. (Agric.)

## 2013 – 2014 (1) Plant Breeding for 3rd B. Sc. (Agric.)

 (2) Seed Science and Technology for M. Sc. (Agron) and M. ( Hort.)

 (3) Breeding for Biotic and Abiotic Stress for M. Sc. (Plant Breed. & Biotech).

***At Maseno University***

## Dec. 2000 – Nov. 2002

1. Genetics for 1st Year B.Sc. (Horticulture)
2. Plant Breeding for 2nd. Year B. Sc. (Horticulture)
3. Seed Science and Technology for 3rd Year B.Sc. (Horticulture)
4. Plant Breeding for M.Sc. (Horticulture)
5. Population and Quantitative Genetics for M.Sc. (Horticulture)

**2014 to Date** (1) Introduction to Agriculture in Kenya for 1st Year B. Sc. (Agron., Hort., Soil Sci. Business Educ. & Exten. B.Ed. and Agric. Econ. with Information Technology).

 (2) Basic Genetics for 2nd Year B. Sc. (Agron., Hort., Soil Sci., Anim. Sci., Soil

 Sci and Educ. with Information Technology).

 (3) Plant Breeding for 2nd Year B.Sc. (Agron., Hort. B. Ed., AGED and Soil Sci. with Information Technology).

(4) Advanced Plant Breeding to M. Sc. Plant Breeding

(5) Population and Quantitative Genetics to M. Sc. Plant Breeding and Genetics.

***(ii) Extra-Curriculum/Administrative Duties:***

# *At University of Nairobi*

**1985 – 1991** (1) Co-ordination of the setting, moderation, marking of the University examinations and compilation of the University examination results for the subjects taught by the Department of Crop Science.

 (2) Co-ordinated the participation of the Department of Crop Science at the Nairobi International Show.

 (3) Member of Farm Practise Committee of the Faculty of Agriculture. Helped in planning, organising and supervision of 2nd Year B.Sc. Agriculture farm practice.

**May 1996** Acting Chairman (Head) of Department of Crop Science

**1997-1998** Acting Chairman (Head) of Department of Crop Science

# *At Maseno University*

Membership in ad hoc committees in Maseno University

|  |  |  |
| --- | --- | --- |
| Committee  | Date  | Position in committee |
| 1. Investigation Committee of Leakage of Examination ABA207/BBA221 and AHI303
2. Vice-Chancellor’s Appeals Committee
3. Senate Ad Hoc Committee to Harmonise B. Ed. (Sci.) and B. Sci. (Agric. Ext. and Educ.) Programmes
4. Vice-Chancellor’s Appeals Committee
5. Senate Ad Hoc Committee on University Restructuring
6. Maseno University Research Strategy Committee
7. Short Listing Committee for Positions of Professor, Associate Professor and Senior Lecturer
8. Senate Ad Hoc Committee on Correction of Three (3) Degree Certificates
9. Ad Hoc Committee on Regional Universities Forum for Capacity Building in Agriculture (RUFORUM) RAU-SHAEA research proposal development
10. Senate Ad Hoc Committee on Candidate Identification for Award of Honorary Degree (Honoris Causa)
11. Senate Ad Hoc Committee on Correction Three Degree Certificates
12. Senate Ad Hoc Committee on Fire Incident at School of Public Health and Community Development
13. Short Listing Committee for Positions of Professor, Associate Professor and Senior Lecturer
14. Committee on Inauguration of the Vice-Chancellor
15. Tender Evaluation committee
16. Tender Evaluation committee
17. Committee on Degree Classification
18. Short Listing Committee for Positions of Senior Lecturer
 | Dec. 2019 - Jan 2020Dec. 2019Dec 2019 – Feb. 2020July 2019July-Aug 2019 April 2019Feb.- March 2019 February 2018October-Nov. 2018Oct – Nov. 2018February 2018Sept. 2016-9th Jan 2017Oct.-Nov 2016Nov-Dec. 2016June 2016June 2016April 2016January 2016 | Chairman Member Chairman Member Chairman Member MemberChairman ChairmanChairmanChairmanChairman MemberMemberMemberChairman Member Member  |

***(iii) Postgraduate Students Supervision***

***Current postgraduate supervision***

***M. Sc.***

1. Ochiel, D. C. Screening and development of sorghum populations for resistance to *Striga hermothica* (Del.) Benth in Homabay and Nyahera. Maseno University*.*

***Ph.D. Thesis Work Accomplished:***

1. Nyamongo, D. O. 2007. Seed dormancy and comparative longevity studies in the two subsp. of *Vernonia galamensis* (Cass.) Less. (*nairobiensis* and *afromontana* var *gibbosa*. Maseno University, Kenya.
2. Ogemah, V. K. Influence of neem tree (*Azadirachta indica*) derivatives on the biology and behaviour of *Prostephanus truncates* (Hor) (Coleoptera: Bostrichidae) and its predator, *Teretriosoma nigrescens* Lewis (Coleoptera: Histeridae). Humboldt University, Berlin, Germany.
3. Wanjala, B.W.K. 2001. Effects of herbicides and Kikuyu grass on yield and quality of pyrethrum. University of Nairobi.
4. Rono, W.K. 1999. Genetic and physiological studies of drought resistance traits in dry beans (*Phaseolus vulgaris* L.) in Kenya. University of Nairobi.
5. Okeno, J.A. 1999. Genotypic variation and physiological studies on nitrogen use efficiency in spring barley. Justus-Liebig University, Giessen, Germany.
6. Omondi, C.O. 1998. Genetic diversity among isolates of *Colletotrichum kahawae* causing coffee berry disease and their interactions with varieties and breeding populations of Arabica coffee. Bonn University, Germany.
7. Kinyua, M.G. 1997. Transfer of genes of yellow rust resistance (*Puccinia striiformis* L.) from wild emmer (*Triticum dicoccoides* korn.) into Kenyan wheat commercial varieties. University of Nairobi.
8. Mutinda, C.J.H. 1996. Genetic variability and response to selection for *Chilo* *partellus* (Swinhoe) resistance in a maize (*Zea mays* L.) population. University of Nairobi.
9. Agong, S.G. 1995. Studies on phylogenetic relationships between the cultivated and landrace populations of tomato in Kenya. Justus-Liebig, University, Giessen, Germany

***M.Sc. Thesis work accomplished:***

1. Oteko, J.O. 2010. Evaluation of different sesame (*Sesamum indicum* L.) genotypes for use as trap crops in an intercropping system for control of *Striga* (*Striga hermonthica*) in maize production in western Kenya. Maseno University
2. Mito, J.O. 2004. Evaluation of different sesame cultivars for use as a trap crop in rotation cropping system for control of *Striga* in maize in western Kenya. Maseno University.
3. Ong’injo E. O. 2002. Evaluation of advanced generations of sesame (*Sesamum indicum*) mutant lines at selected sites in western Kenya. University of Nairobi.
4. Oyoo, M.E. 2001. Adaptability of quinoa (*Chenopodium quinoa* Willd) to two sites in Kiambu district, Kenya. University of Nairobi.
5. K'Otuto, G.O. 2001. Effect supplemental irrigation on soil chemical properties and growth of *Acacia saligna*. In north-western Kenya. University of Nairobi.
6. Abdirizak, M.H. 1999. Effect of innoculation and varying bean densities on growth and yield of intercropped maize and beans. University of Nairobi.
7. Okumu, S.O. 1999. Plant water status and gas exchange parameters of two morphological types of *Acacia seligna* in a runoff catchment system under arid conditions. University of Nairobi.
8. Mamati, G.E. 1998. Evaluation of selected sweet potato clones (*Ipomea* *batatas*) and their progenies in three environments Kenya. University of Nairobi.
9. Egal, A.M. 1998. Effects of clump planting of maize and time of planting of beans on growth and yield of intercropped maize and beans. University of Nairobi.
10. Nyabundi, K. 1997. Sesame (*Sesamum indicum* L.) response to nitrogen and phosphorus nutrition. University of Nairobi.
11. Korir, P.C. 1996. Relationships between relative water content of leaves and growth and yield of field beans (*Phaseolus vulgaris* L.) cultivars under different watering levels. University of Nairobi.
12. Ojiambo, P.S. 1996. Cultural studies on *Alternaria sesami* (Kaw.) Moh. and Beh. and significance of sesame (*Sesamum Indicum* L.) seed transmission and plant age on *Alternaria* leaf spot severity. University of Nairobi.
13. Kyalo, G.K. 1996. A study on the effect of gamma rays on five sesame (*Sesamum* *indicum* L.) varieties.
14. Maimba, F.M. 1994. Evaluation of sesame (*Sesamum indicum* L.) genotypes for drought stress. University of Nairobi.
15. Oluoch, G. 1994. Evaluation of sorghum (*Sorghum bicolor* L. Moench) cultivars for drought resistance. University of Nairobi.
16. Mcharo, T.M. 1994. Diallel analysis of metric traits in sesame. *Sesamum indicum* L.). University of Nairobi.
17. Odenyo, W.A. 1994. Genotype environment interactions: Adaptability studies for selected triticale genotypes grown in medium and low rainfall areas of Kenya. University of Nairobi.
18. Aduol, R.A. 1993. A study of the agronomic and physiological response of field bean (*Phaseolus vulgaris* L.) cultivars to soil water deficits. University of Nairobi.
19. Nyanapah, J.O. 1992. Cultural studies on *Cercospora sesami* Zimm., *C. sesamicola* Moh. and their interactions with 16 *Sesamum indicum* L. germplasm in Kenya. University of Nairobi.
20. Ligeyo, D.O. 1992. Use of mean scaling for estimation of variance components in maize breeding. University of Nairobi.
21. Okeno, J.A.K. 1992. Genetic variant enzymes in the genus *Amaranthus*. University of Nairobi.
22. Nyende, A.B. 1991. Selection and evaluation of pigeon peas for resistance to Fusarium wilt pathogen (*Fusarium oxysporium* f. sp. *udum*) and other agronomic traits. University of Nairobi.
23. Runkulatile, H.H. E. 1991. A study of the physiological and ecological adaptation of common beans (*Phaseolus vulgaris* L) to drought stress. University of Nairobi.
24. Ogola, J.B.O. 1991.Varietal differences in photosynthetic growth and yield responses of beans under different watering regimes. University of Nairobi.
25. Kinyua, M.G. 1991.Genotype x environment interaction; Adaptation of wheat in the non-conventional areas in Kenya. University of Nairobi.
26. Otsyula, R.M. 1991.Genotypic competition in field beans (*Phaseolus vulgaris* L.) varieties. University of Nairobi.
27. Omondi, C.O. 1989. Variation and yield prediction analyses of some morphological traits in six Kenyan landrace populations of spiderflower (*Gynadropsis gynadra* (L) Briq). University of Nairobi.
28. Agong, S.G. 1989. Out-crossing and yield prediction studies in grain amaranths. University of Nairobi.
29. Wamatu, J.N. 1989. Genotype x environment interactions in pigeon pea (*Cajanus* *cajan*) (L) Millsp. grown in marginal rainfall areas of Kenya. University of Nairobi.
30. Wamatu, J.N. 1989. Genotype x environment interactions in pigeon pea (*Cajanus* *cajan*) (L) Millsp. grown in marginal rainfall areas of Kenya. University of Nairobi.
31. Ivara, J. 1988. Quantitative studies in grain amaranth populations. University of Nairobi.
32. Nabukenya, R. 1988. Combining ability analysis for yield and its components in sunflower (*Helianthus annus* L.) University of Nairobi.
33. Githiri, S.M. 1988. Inheritance of dwarfism in pigeon pea (*Cajanus cajan* (L) Millsp.). University of Nairobi.
34. Agwanda, C.O. 1988. Improvement of seed yield in beans, *Phaseolus vulgaris* L. by using morphological components of yield as selection criteria. University of Nairobi.

***(iii) Thesis examined: Other than those of students mentioned above: Since 1986 = 34***

 ***(iv) Research Activities***

**2000 - 2002** Using Induced Mutations For Sesame Improvement. Funded by Agricultural Research Fund of Kenya Agricultural Research Institute. (Started in March 2000).

**2000 - 2002** Studies of effects of maize and sesame mixed and rotation cropping systems on *Striga* infestation. Funded by the Rockefeller Foundation. (Started in March 2000).

**1994 - 1999** Coordinated use of marginal water resources in arid and desert areas. Funded by USA-Israel Co-operative Development Research Programme.

**1994 - 1999** Optimising Biomass Production in a Runoff Agro-forestry System in Northern Kenya. Funded by Germany-Israel Agricultural Research Agreement

**1993 - 1999** Yield Improvement for Kenyan sesame varieties using induced mutations in sesame. Funded by International Atomic Energy Agency.

**1993 - 1999** Yield Improvement for Kenyan sesame varieties using induced mutations in sesame. Funded by International Atomic Energy Agency.

**1992 - 1994** Sesame improvement for dry-land eastern Kenya and medium potential western Kenya Funded by Food and Agriculture Organisation (F.A.O.).

**1990 - 1998** Vegetable Oil Protein System of Egerton University: Sesame Project (Leader of the project). Funded by IDRC.

**1989 - 1994** Simsim improvement project of University of Nairobi (Principal investigator). Funded by University of Nairobi.

**1988 - 1990** Women in Development Project conducted by Institute of African Studies, University of Nairobi. Funded by NORAD.

**1988** Survey on oil/protein seed crop production in Kenya. Part of the Vegetable Oil Protein System Project in Kenya co-ordinated by Egerton University and funded by International Development Research Centre (IDRC).

**1987 - 1994** Agricultural activities in Baringo District. Part of Institutional Capacity Building/Child Survival Development Project funded by UNICEF and FINIDA.

**1985 - 1986** Field bean screening for dry-land conditions. Funded by Bean/Cowpea Collaborative Research Support Programme (CRSP) of USAID.

**1981 - 1985** Grain amaranths breeding. Funded by IDA/IBRD World Bank Project.

**1978 - 1980** Barley breeding. Funded by University of Nairobi.

**NB** *Sesame research activities have led to the development of five sesame cultivars, two of which are mutant genotypes. By the time I left Maseno University in November 2002 the last two projects were still in operation.*

***RESPONSIBILITIES IN NATIONAL ASSEMBLY AND MINISTRY OF EDUCATION***

# *At Kenya National Assembly (Member of Parliament)*

1. Legislation and Constituency representation.

# *At the Ministry of Education (Assistant Minister)*

1. Implementation of government education policy and related issues.

**G. RESEARCH PROJECTS**

**Research Funds obtained and managed**

**2000 - 2002** Kenya Shillings 2,719,821.00 (about US Dollars 37,200.00). For Using Induced Mutations for Sesame Breeding. Supported by Agricultural Research Fund of Kenya Agricultural Research Institute.

**2000 - 2002** US Dollars 66,760.00. For Studies on effects of maize and sesame mixed and rotation cropping systems on *Striga* infestation. Supported by the Rockefeller Foundation.

**1998** Canadian Dollars 4,500.00. For Sesame Marketing and Extension Workshop for farmers, extension workers and people involved in sesame marketing. Donated by International Development Research Centre.

**1997** Kenya Shillings 211,485.00. Sesame Production Adaptive Research Project, donated by University of Nairobi.

**1994 to 1998** US Dollars 101,324.00: Coordinated Use of Marginal Water Resources in Arid and Desert Areas, donated by Israel Co-operative Development Research Programme.

**1993 to 1999** US Dollars 20,000.00: Yield Improvement of Kenya Sesame Varieties, Using Induced Mutations, donated by International Atomic Energy Agency.

**1992-1994** US Dollars 15,000.00: Sesame Improvement for Semi-Arid and Dry-land Eastern Kenya and Medium Potential Areas of Western Kenya, donated by Food and Agriculture Organisation (FAO).

**1991-1994** German DM. 172,800.00: Sorghum Breeding for Semi-Arid Areas and *Striga* Resistance, donated by German-Israel Agreement Project.

**1990-1997** Canadian Dollars 153,840.00: Sesame Project, donated by International Development Research Centre.

**1989-1994** Kenya Shillings 431,995.00: Simsim Improvement Project, donated by University of Nairobi.

**NB** *By November 2002 when I resigned from Maseno University the last two projects mentioned above were still operational and were left in the hands of other scientists in the University to handle*.

**H. REFEREEING OF TECHNICAL ARTICLES**

**Journal Papers**

**1987** Refereed one article for *Kenya J. Sci. Tech*.

**1988** Refereed four articles for *Kenya J. Sci. Tech*.

**1989** Refereed two articles for *Kenya J. Sci. Tech*.

**1990** Refereed two articles for *Kenya J. Sci. Tech*.

**1991** Refereed one article for *Discovery & Innovation*.

**1992** (1) Refereed two articles for *Discovery & Innovation*.

 (2) Refereed two articles for *Kenya J. Sci. Tech*.

 (3) Refereed one article for *E. Afric. Agric.For. J*.

**1993** (1) Refereed one article for *Discovery and Innovation*.

**1995** (1) Refereed one article for *E. Afric. Agric.For. J*.

 (2) Refereed one article for *Kenya J. Sci. Tech*.

**1997** (1) Refereed one article for *E. Afric. Agric.For. J*.

**1999** (1) Refereed scientific conference proceedings for Kenya Agricultural Research Institute (K.A.R.I.)

**2001**  (1) Refereed five articles for *Discovery and Innovation*

 (2) Refereed two articles for Maseno Journal of Education, Arts and Science.

**Research Proposals**

**1991** Refereed one research proposal for Kenya Agricultural Research Institute (K.A.R.I.).

**1992** Refereed two research proposals for K.A.R.I.

 Refereed two research proposals for the African Academy of Sciences.

**1993** Refereed three research proposals for K.A.R.I.

**1994** Refereed four research proposals for K.A.R.I.

**1997** Refereed four research proposals for K.A.R.I.

**1998** Refereed three research proposals for K.A.R.I.

**1999** Refereed one research proposal for K. A. R. I.

**I. MEMBERSHIP IN SCIENTIFIC PANELS/BOARDS/SOCIETIES**

**2000-2002** Representative of Plant Breeders Association of Kenya in Seed Trade Association of Kenya (STAK).

**1991 - 2002** Member of Peer Group of Kenya Scientists for Kenya Agricultural Research Institute (K.A.R.I.).

**1996 - 2000** Secretary-General of Plant Breeders Association of Kenya.

**1990 - 1996** Chairman of Kenya Sesame Research Committee.

**1990 - 1993** Member of Maize Research Committee for K.A.R.I.

**1991 - 1997** Member of the Committee for Kibwezi Dry-land Research Station, University of Nairobi.

**1988 - 1989** Member of Board of Undergraduate Studies Committee in the Faculty of Agriculture, University of Nairobi.

**J. OTHER ACADEMIC AND RELATED ACTIVITIES**

**Feb 2017 – July 2017** Part –time teaching for Maseno University

**2000** Convenor for Plant Genetic Resources Training Curriculum Committee (for development of plant genetic resources training programmes in Kenyan universities).

**2000**  Ph. D. Thesis examiner for Annamalai University, India.

**1994 - 2002** Member of D.A.A.D pre-selection interview board for D.A.A.D scholarships.

**1997 - 1999** External examiner for Botany Department, Moi University.

**1993 - 1996** External examiner for Department of Agronomy, Egerton University.

**1998 - 2000** Part-time lecturing for Maseno University. Taught Principles of Genetics and Plant Breeding to B.Sc. (Horticulture) classes.

**1987 - 1988** Participated in the Moderation of Diploma examinations for Jomo Kenyatta College of Agriculture and Technology under Kenya National Examination Council

**K. COMMUNITY BASED ACTIVITIES/LEADERSHIP ROLES**

 (1) Secretary-General for Riwruok Wang'aya "B" from 1979 to 1981.

 (2) Treasurer for Riwruok Wang'aya "B" from 1986 to 1993.

 (3) Secretary-General for Nyando Development Association from 1987 to 1991.

 (4) Chairman of Our Lady of Perpetual Support for People Living With AIDS and Orphans from 1994 to 1999.

 (5) Chairman of HAC-Agrodev and Orphans from 1999 to 2002.

 (6) Chairman of Organisation for the Support of People Living With AIDS and Orphans from 1999 to 2003

 (7) I have been involved in mobilization of a rural community to form women and youth groups for the purpose of initiating self-help projects and income generating activities.

 (8) I have also helped in mobilising widows to form groups for such purposes.

 (9) I have helped organise seminars for rural communities in former Kisumu district so as to help them identify their socio-economic problems and possible solutions to such problems.

 (10) I have assisted in identifying orphans within a rural community in former Kisumu district for the purpose of submitting their names to potential sponsors for their education.

 (11) In various capacities, I have been involved in fund raising activities for community development projects.

**L. CONSULTANCY**

**1994 – 1995** West Kenya Rainfed Rice Project. Consultancy for Lake Basin Authority with T.J. Cottington Technical Services Ltd.

**1987** Kenya National Academy of Sciences, and the Oil Crops Development Ltd. The study involved a survey of the problems that affect the production of vegetable oil in Kenya.

**1980 – 1981** Ministry of Agriculture and Ministry of Livestock Department, Kenya. The study involved a country-wide survey on agricultural extension services to the farmers for the two ministries. The work involved consultation with extension officers and farmers.

**M. PARTICIPATION IN SCIENTIFIC WORKSHOPS, SEMINARS, CONFERENCES AND SYMPOSIA**

 **International**

**2019** 4th-15th March. United Nations Environment Assembly. Nairobi, Kenya

**2018** 21st- 26th October. 6th African Higher Education Week. RUFORUM Biennial Conference. Nairobi, Kenya.

**2002** Regional Workshop on Needs Assessment and Priority Settings of Agricultural Biotechnology. Biotechnology Trust Africa. Nairobi, Kenya.

**2002** IUCEA/SIDA-SAREC Researchers’ workshop on Lake Victoria Basin. Arusha, Tanzania.

**2002**  Science Education for New Civil Engagements and Responsibilities (SENCER) Summer Institute of American Association for Advancement of Science and American Association for Colleges and Universities. Santa Clara University, California, USA.

**2002**  Fifth Regional Meeting of the Forum for Agricultural Resource Husbandry, Rockefeller Foundation. Entebbe, Uganda.

**2001** ARIPO/WIPO/KIPO Seminar on PCT. Nairobi, Kenya.

**2001** AWSE/AAAS/AACU/IWSE/JKUAT Workshop on women in higher education and science: African universities responding to HIV/AIDS. Nairobi, Kenya.

**1999** UPOV/WITO/WTO Workshop on Protection of Plant Varieties Under Article 27.3(b) of the TRIPS Agreement. Nairobi, Kenya.

**1999** CIP, SARRNET, PRAPACE Workshop on Sweat potato breeding and genotype- environment interaction. Kampala, Uganda.

**1998** Third meeting of the Coordinated Research Programme on Induced

 Mutations for Sesame Improvement. Bangkok, Thailand.

**1997** University Key Persons Meeting at IPGRI, Sub-Saharan African Office, Nairobi, Kenya.

**1996** Second meeting of the Coordinated Research Programme on Induced Mutations for Sesame Improvement. Antalya, Turkey.

**1996** Implementation of on-station and on-farm evaluation of improved mutant lines of important African crops. Bamako, Mali.

**1994** Research Coordination Meeting on Induced Mutations for Sesame Improvement Vienna, Austria.

**1992** Core Collections: Improving the Management and Use of Plant Germplasm Collections. Brasilia, Brazil.

**1991** International Oil Crops Network Workshop. China.

**1989** UNICEF Symposium on Institution Strengthening and Capacity Building for Child

**1988** Fourth IDRC Oil Crops Network Workshop; Egerton University, Njoro, Kenya.

**1986** First Regional Workshop on Pigeon peas. Nairobi, Kenya.

**1984** Sixth Annual Genetic Conference of the University of California, Davis, Fallen Leaf Lake, Nevada U.S.A.

**1982** Genetic Engineering of Plants. University of California, Davis California, U.S.A.

**National:**

**2002** Workshop on Integration of On-Farm Research into the Graduate Curriculum Within Kenyan Universities. University of Nairobi. Kenya.

**2001** Third Scientific Workshop of the Plant Breeders Association of Kenya. KARI Headquarters, Nairobi.

**2001** CIMMYT/KARI IRMA Project Stakeholders’ Meeting. Nairobi.

**1999** Second Horticultural Seminar at Jomo Kenyatta University of Agriculture and Technology, Juja.

**1999** Second Scientific Workshop of the Plant Breeders Association of Kenya. KEPHIS Headquarters, Nairobi.

**1998** First Scientific Workshop of Plant Breeders Association of Kenya. Milimani Hotel, Nairobi.

**1998** Sixth Kenya Agricultural Research Institute (KARI), Scientific Congress. KARI Headquarters, Nairobi

**1998** HIV/AIDS Prevention and Care (HAPAC) Project Stakeholders Planning Workshop, Homa Bay.

**1998** Nyanza Professional Caucus Symposium on AIDS and Development, Ukweli Pastoral Centre, Kisumu.

**1998**  Sesame Production, Extension and Marketing Workshop. Kisumu.

**1996** National Workshop on Indigenous Knowledge for Biodiversity and Development. National Museums of Kenya, Nairobi.

**1994** Workshop for Bean Research Collaboration. Thika.

**1991** Workshop on Sesame Production in Coast Province. Mombasa.

**1990** Seminar on Women in the Development Process. Nairobi.

**1989** Workshop on Women in the Development in Siaya District. Siaya.

**1988** First Symposium of Crop Science Society of Kenya. Nairobi.

**1988**  Workshop on Women in Development in Kakamega District. Kakamega.

**1987** First National Oil Workshop. Egerton University, Njoro, Kenya

**N. SCIENTIFIC PUBLICATIONS**

**Papers Published in Reviewed Journals**

1. Oyoo, M. E., Khaemba, J., Githiri, S. M. and Ayiecho, P. O. 2015. Production and utilization of Quinoa (Chenopodium quinoa Willd.) outside its traditional growing areas:a case of Kenya.in ‘FAO and CIRAD. 2015 State of the Art Report of Quinoa in the World in 2013’ (Bazile, D., Bertero, D and Nieto, C. eds.), p. 534-548.
2. Oyoo, M. E., Githiri, S. M. and Ayiecho, P. O. 2010. Performance some quinoa *(Chenopodium* *quinoa* Willd.) genotypes in Kenya. *S.* *Afr. J. Plant* *and* *Soil.* 27: 187- 190.
3. Hokanson, K.E., Ellstrand, N.C., Ouedraogo, J.T., Olweny, P.A., Schaal, B.A. and Raybould, A.F. 2010. Biofortified sorghum in Africa: using problem formulation to inform risk assessment. *Nat. Biotechnol*. 28: 900-903.
4. Nyamongo, D.O., Daws, M.I., Nyabundi, J.O. Hay, F.R. and Ayiecho P.O. 2010. Onset of dormancy, dormancy levels, and appropriate seed production environment for two subspecies of *Vernonia galamensis* (Cass.) Less. J. *New Seeds.*11: 16-27.
5. Omondi, C.O. Ayiecho, P.O., Mwang'ombe, A.W. and Hindorf, H. 2001 Resistance of *Coffea arabica* cv. "Ruiru 11" tested with different isolates of *Colletotrichum* *kahawae* the causal agent of coffee berry disease. *Euphytica*. 121:19-24.
6. Ojiambo, P.S., Ayiecho, P.O., Narla, R.D. and Mibey, R.K., 2000. Tolerance level of *Alternaria sesami* and the effect of seed infection on yield of sesame in Kenya. *Expl. Agric*. 36: 335-342.
7. Haussmann, B.I.G., Obilana, A.B., Ayiecho. P.O., Blum, A., Schipprack, W. and Geiger, H.H. 2000. Yield and yield stability of four population types of grain sorghum in semi-arid areas of Kenya. *Crop Sci*. 40: 319-329.
8. Omondi C.O., Ayiecho, P.O., Mwang'ombe, A.W. and Hindorf, H. 2000. Reaction of *Coffea arabica* genotypes to strains of *Colletotrichum kahawae*, the cause of coffee berry disease. *J. Phytopathology*. 148: 61-63.
9. Ayiecho, P. O. and Nyabundi, J. O. 2000. Field screening of sorghum cultivars for Striga resistance. In Breeding for Striga Resistance in Cereals; Proccedings of a Workshop Held at IITA, Ibadan, Nigeria.Weikersheim, Margraf. Pp. 299-304.
10. Ojiambo, P.S., Ayiecho, P.O. and Nyabundi, J.O. 1999. Severity of *Alternaria* leafspot and seed infection by *Alternaria sesami* (Kawamura) Mohanty and Behera, as affected by plant age of sesame (*Sesamum indicum* L.). *J. Phytopath*. 147: 403-407.
11. Mutinda, C.J.M., Saxena, K.N., Ayiecho, P.O. and Ajala, S.O. 1998 Selecting maize (*Zea mays* L.) lines for development of populations with resistance to spotted stem borer (*Chilo partellus*). *Afri. J. Plant. Protect*.8: 49-57.
12. Ojiambo, P.S. Ayiecho, P.O. and Nyabundi, J.O. 1999. Effect of plant age on sesame infection by *Alternaria* leafspot. *Afri. Crop Sci. J*. 7: 91-96.
13. Haussmann, B.I.G., Obilana, A.B., Ayiecho, P.O., Blum, A., Schipprack, W. and Geiger, H.H. 1999. Quantitative genetic parameters of sorghum [*Sorghum bicolor* (L.) Moench] grown in semi-arid areas of Kenya. *Euphytica*. 105: 109-118.
14. Okeno, J.O., Schittenhelm, S., Ayiecho, P.O. and Friedt, W. 1998. Changes in nitrogen related characters in German spring barley cultivars in a period of eight years. In El Bassam, N., Behl, R.K. and Prochnow, B. (eds.), 1998. *Sustainable Agriculture for Food, Energy and Industry Vol. II*. James and James Science Publishers. 1998. pp. 669-675.
15. Ojiambo, P.S., Narla, R.D., Ayiecho, P.O. and Nyabundi, J.O. 1998. Effect of infection level of sesame (*Sesame indicum* L.) seed by *Alternaria sesami* on severity of Alternaria leafspot. *Tropical Agric. Res. and Extension*. 1: 125-130.
16. Mutinda,C.J.M., Saxena, K.N., Ajala, S.O. and Ayiecho, P.O. 1998. Evidence of antibiosis resistance to the spotted stemborer, *Chilo partellus* (Swinhoe) in a maize (*Zea mays* L.) population. *Insect Sci. Applic*. 18:217-224.
17. Haussmann B.I.G., Obilana, A.B., Blum, A., Ayiecho, P.O., Schipprack, W. and Geiger, H.H. 1998. Hybrid performance of sorghum and its relationships to morphological and physiological traits under variable drought stress in Kenya. *Plant Breeding*. 117: 223-229.
18. Omanya, G.O., Ayiecho, P.O. and Nyabundi, J.O. 1996. Field screening of sorghum [*Sorghum bicolor* (L.) Moench] for adaptability to dryland conditions. *Afr. Crop Sci*. *J*. 4:127-138
19. Nyanapah, J.O., Ayiecho, P.O., Mibey, R.K. and Nyabundi, J.O.1995. Conditions influencing growth and sporulation of *Cercospora sesame* and *C. sesamicola.E. Ari*. *Agric. For. J*. 61 (2).
20. Okeno, J.A. and Ayiecho, P.O. 1996. Isozyme variation among *Amaranthus* cultivars. *Discovery and Innovation*. 8:151-158.
21. Nyabundi, J.O., Runkulatile, H.H.E. and Ogola, J.B. and Ayiecho, P.O. 1995. Differences in gas exchange parameters and rooting characteristics of bean (*Phaseolus vulgaris* (L.) varieties adapted to high and low rainfall agricultural zones of Kenya. *E. Afr. Agric. For. J*. 61: 69-77.
22. Omondi, C.O. and Ayiecho, P.O. 1995. Variation analysis of six Kenya landrace populations of spiderflower, *Gynadropsis gynandra*. *E. Afr. Agric. For*. J. 60. 185-191.
23. Mcharo, T.M., P.O. Ayiecho and J.O. Nyabundi 1995. Combining ability for morphological and yield related traits in sesame. *Sesame and Safflower* *Newsletter*. 10-:15-21.
24. Nyanapah, J.O.; Ayiecho, P.O. and Nyabundi, J.O. 1995. Field evaluation of sesame cultivars for *Cercospora* leaf spot resistance. *E. Afr. Agric. For. J*. 60. 115-121.
25. Ivara, J. and Ayiecho, P.O. 1995. Phenotypic correlations and path effects in grain amaranths. *Kenya J. Sci. Tech. (B)* 11:55-64.
26. Ayiecho, P.O. and Jain, S.K. 1995. Quantitative studies in two grain amaranth populations using two selection methods. *Kenya J. Sci. Tech. (B)* 11: 124-138.
27. Ayiecho, P.O. 1995. Genetics of yield related traits in a diallel cross of barley. *Kenya J. Sci. Tech*. 11: 87 - 93.
28. Odeny, D.A., Nyabundi, J.O. and Ayiecho, P.O. 1994. Effect of nitrogen and phosphorous fertilisation on sesame (*Sesamum indicum* L.) yield and yield components. *Sesame and Safflower Newsletter*. 9. 12-17.
29. Runkulatile, H.H.E., Nyabundi, J.O. and Ayiecho, P.O. 1993. Relationship between leaf water status and varietal adaptation of beans (*Phaseolus vulgaris*) to wet and dry agricultural zones of Kenya. *E. Afr. Agric. For. J.* 58: 95 - 104.
30. Nyanapah, J.O. Ayiecho, P.O. and Nyabundi, J.O. 1993. Pathogenicity of *Cercospora sesami* and *C. sesamicola* on sesame and its wild relatives. *Sesame and* *Safflower Newsletter* 8:18-21.
31. Agwanda, C.O., Ayiecho, P.O. and Tyagi, A.P. 1993. Genetic variability studies in two landrace populations of field beans using selection *Discovery and Innovation* 5: 361-365.
32. Omondi, C.O. and Ayiecho, P.O. 1992. Correlation and multiple regression analyses in two Kenyan landrace populations of *Gynandropsis gynandra* (L.) Briq. *India J.* *Agric. Sci*. 62: 160-162.
33. Agong, S.G. and Ayiecho, P.O. 1992. Regression and correlation analyses in grain amaranths (*Amaranthus hypochondriacus* and *A. cruentus*). *Ind. J. Agric. Sci*. 62: 822-6.
34. Ivara, J. and Ayiecho P.O. 1991. Quantitative studies in grain amaranths: variation analysis. *Discovery and Innovation* 3: 105 - 110.
35. Agong, S.G. and Ayiecho, P.O. 1991. Outcrossing rate studies in grain amaranths. *Plant Breeding* 107: 156 - 160.
36. Ayiecho, P.O. and Jain, S.K. 1990. A regression and path analysis of yield related traits in two populations of grain amaranths. *E. Afric. Agric. For. J.* 55: 147 - 158.
37. Agwanda, C.O., Ayiecho, P.O. and Tyagi, A.P. 1989. Yield prediction in two landrace populations of field beans (*Phaseolus vulgaris*). *Discovery and Innovation* 1: 77 - 81.
38. Ayiecho, P.O. 1989. A diallel analysis of yield related traits in crosses involving two-row and six-row barleys. *E. Afric. Agric. For. J*. 54: 239 - 249.
39. Ayiecho, P.O., Singh, S.P. and Thimba, D. 1988. Popping quality of grain amaranths. *E. Afric. Agric. For. J*. 54: 85 - 89.
40. Ayiecho, P.O. and Onim, J.M.F. 1983. Correlation between yield and malting quality in barley. *Ind. J. Agric. Sci*. 53: 397 - 400.

**Papers in Proceedings/Presentations in Workshops, Seminars, Meetings**

1. Ayiecho, P. O., Nyabundi, J. O., Odhiambo, G. D., Omuony, J. M. and Oteko, J. O. 2002*.* Studies on effects of maize and sesame mixed and rotation cropping on maize *Striga* infestation. 5th Regional Meeting of the Forum for Agricultural Resource Husbandry. The Rockefeller Foundation. 12 – 16 August 2002. Entebbe, Uganda.
2. Oteko, J.O. Ayiecho, P. O., Odhiambo, G. D. and Nyabundi, J. O. 2002. Evaluation of different sesame (*Sesamum indicum* L.) genotypes for use as trap crops in an intercropping system for control of *Striga hermonthica* weed in maize production in western Kenya. 5th Regional Meeting of the Forum for Agricultural Resource Husbandry. The Rockefeller Foundation. 12-16 August 2002. Entebbe, Uganda.
3. Omuony, J. M., Ayiecho, P. O., Odhiambo, G. D. and Nyabundi, J. O. 2002. Incorporation of trap crops including sesame in striga (*Striga hermonthica*) weed management in western Kenya. 5th Regional Meeting of Forum for Agricultural Husbandry. The Rockefeller Foundation. 12-16 August. Entebbe, Uganda.
4. Omuony, J. M., Ayiecho, P. O., Odhiambo, G. D.and Nyabundi, J. O. 2002. Evaluation of different sesame cultivars for use as trap crops in rotation cropping system for control of striga weed (*Striga hermonthica*) (Del.) Benth.) in maize production in western Kenya. 5th Regional Meeting of the Forum for Agricultural Resource Husbandry. The Rockefeller Foundation. 12-16August 2002. Entebbe, Uganda.
5. Ayiecho, P. O., Sigot, A. and Ouko, V. O. 2002. Science teaching and approach to HIV/AIDS problem in Maseno University. Science Education for New Civil Engagements and Responsibilities (SENCER) Summer Institute of American Association for Advancement of Science and American Association of Colleges and Universities. 2-6 August 2002. Santa Clara University, California, USA.
6. Ayiecho, P. O. and Nyabundi, J. O. 1999. Field screening of sorghum cultivars for *Striga* resistance. Breeding for Striga Resistance in Cereals Workshop. 18-20 August, 1999. Ibadan, Nigeria.
7. Ayiecho, P. O. and Nyabundi, J. O. 1998. Sesame production package for western Kenya. Sesame Production, Extension and Marketing Workshop. 22nd December, 1998. Museum View Hotel, Kisumu, Kenya. University of Nairobi and Maseno University College. pp. 8-17.
8. Nyabundi, J. O. and Ayiecho, P. O. 1998. Sesame as an oil crop and food crop. Sesame Production, Extension and Marketing Worksop. 22nd December,1998. Museum View Hotel, Kisumu, Kenya. University of Nairobi and Maseno University College. pp. 4-7.
9. Mutinda, C.J.M., Ajala, S.O., and Ayiecho, P.O. 1998. Evaluation for resistance to the spotted stem borer, *Chilo partellus*, in a maize (*Zea mays*) population. Proc. of 6th Eastern and Southern Africa Regional Maize Conference: Maize Production Technology for the Future. Challenges and Opportunities. 21-25 September, 1998. Addis Ababa, Ethiopia. CIMMYT.
10. Omondi, C.O., Hindorf, H., Welz, H.G., Saucke, D., Ayiecho, P.O. and Mwang'ombe, A.W. 1997. Genetic diversity among isolates of *Colletotrichum kahawae* causing coffee berry disease. Proc. 17th. International Colloquium on Coffee. 20-25. July,1997. Nairobi, Kenya.
11. Ayiecho, P.O. and Nyabundi, J.O. 1997. Towards improvement of Kenyan sesame using induced mutations. National Horticultural Seminar. Panafric Hotel, Nairobi, Kenya, J.K.U.A.T and J.I.C.A.
12. Ayiecho, P.O. and J.O. Nyabundi. 1996. Yield Improvement of Kenyan Sesame Varieties using Induced Mutations. 2nd Meeting of the Coordinated Research Programme on Induced Mutations for Sesame Improvement at Antalya, Turkey. IAEA/FAO, Vienna, Austria.
13. Kinyua, M.G., Ayiecho P.O., Wanga, H. and Akundabweni, L. 1994. Screening for drought tolerance in Kenyan commercial wheat varieties and introduced lines. In Developing Sustainable Wheat Production Systems. The 8th Regional Wheat Workshop for Eastern, Central and Southern Africa. Kampala, Uganda 1993.
14. Ayiecho, P.O. and Nyabundi, J.O. 1994. Sesame improvement in Kenya using induced mutations. Research Coordination Meeting on Induced Mutations for sesame. Vienna, Austria. March 1994 IAEA/FAO.
15. Kinyua, M.G. and P.O. Ayiecho, 1991. Correlation studies to facilitate the selection of bread wheat varieties for the marginal areas of Kenya. The Seventh Regional Wheat Workshop for East, Central and Southern Africa, Nakuru, Kenya. 1991.
16. Ayiecho, P.O., Nyabundi, J.O. and Nyabundi K. 1991. Sesame production in Kwale and Kilifi District of Coast Province of Kenya. Oil crops: Sub-network Workshop. Proc. Joint Meetings Held in Shanghai, China and Saskatoon, Canada. 1991 Ed. A. Omran. IDRC. Canada. P. 49-58.
17. Ayiecho, P.O. 1990. The role of women in small scale farming in Laikipia District. National Seminar on Women in Development Process. University of Nairobi, Kenya.
18. Ayiecho, P.O. 1989. The role of women in agriculture in Siaya District. Seminar on Women and Development in Kenya. University of Nairobi, Kenya.
19. Ayiecho, P.O. and Jain, S.K. 1988. Temperature effects on the germination of grain amaranth populations. First symposium of Crop Science Society of Kenya. Nairobi, Kenya.
20. Ayiecho, P.O. 1988. The role of women in agriculture in Kakamega District. Seminar on Women and Development in Kenya, Kakamega District. University of Nairobi, Kenya.

**Research Project Reports**

1. Ayiecho, P.O., Nyabundi, J.O., Odhiambo, G.D. and Ariga, E.S. 2003. Studies on effects of maize and sesame mixed and rotation cropping systems on *Strig*a infestation. Final Report to Forum on Agricultural Resource Husbandry of the Rockefeller Foundation. Washington, USA.
2. Ayiecho, P.O., Nyabundi, J.O., Odhiambo, G.D. and Ariga, E.S. 2001. Studies on effects of maize and sesame mixed and rotation cropping systems on *Strig*a infestation Report to Forum on Agricultural Resource Husbandry of the Rockefeller Foundation. Washington, USA.
3. Ayiecho, P.O. and Nyabundi, J.O. 1997. Sesame (K) Project Phase II. Final Technical Report for IDRC, Ottawa, Canada.
4. Ayiecho, P.O. and Nyabundi, J.O. 1996. Yield improvement for Kenyan Sesame varieties using Induced Mutations. Third Year Report for IAEA, Vienna, Austria.
5. Ayiecho, P.O. and Nyabundi, J.O. 1995. Sesame (K) Project Phase II. Second Year Technical Report for IDRC, Ottawa, Canada.
6. Ayiecho, P.O. and Nyabundi, J.O. 1995. Yield improvement for Kenyan Sesame varieties using Induced Mutations. Second Year Report for IAEA, Vienna, Austria.
7. Blum, A., Ayiecho, P.O., Nyabundi, J.O., Geiger, H.H. and Hausmann, B. 1994. Sorghum Improvement for Semi-Arid Areas of Kenya. GIARA Project No. 91 (4) B-16. Final Report.
8. Blum, A., Ayiecho, P.O., Nyabundi, J.O., Oluoch, G., Geiger, H.H. and Hausmann, B. 1994. Sorghum Improvement for Semi-Arid Areas of Kenya. GIARA Project No. 91 (4) B-16. Annual Report for the Third Year. 1994.
9. Ayiecho, P.O. and Nyabundi, J.O. 1994. Yield Improvement for Kenyan Sesame Varieties Using Induced Mutations. First Year Report to International Atomic Energy Agency (IAEA), Vienna, Austria.
10. Ayiecho, P.O. and Nyabundi, J.O. 1994. Sesame (K) Project Phase II First Technical Report for IDRC, Ottawa, Canada.
11. Ayiecho, P.O. and Nyabundi, J.O. 1994. Sesame Improvement for Dryland Eastern Kenya and Medium Potential Western Kenya Report for Food and Agriculture Organisation (F.A.O.).
12. Blum, A., Ayiecho, P.O., Nyabundi, J.O., Geiger, H.H. and Hausmann, B. 1992. Sorghum Improvement for Semi-Arid Areas of Kenya. GIARA Project No. 91 (4)B - 16. Annual Report for the Second Year, 1992.
13. Ayiecho, P.O. and Nyabundi, J.O. 1992. Sesame (Kenya) Project Final Report for the IDRC, Ottawa, Canada.
14. Blum, A., Ayiecho, P.O., Geiger, H.H. and Hausmann, B. 1991. Sorghum Improvement for Semi-Arid Areas of Kenya. German Israel Agricultural Research Agreement (GIARA) Project No. 91 (4)B - 16. Annual Report for the First Year, 1991.
15. Ayiecho, P.O. and Nyabundi J.O. 1991. Sesame (Kenya) Project First Technical Report (September 1990 - August 1991) for the International Development Research Centre (IDRC), Ottawa, Canada.

**Textbooks.**

(1) P.O. Ayiecho and Nyabundi, J.O. 1995. Sesame Production Handbook for Kenya. International Research Centre, Ottawa, Canada.

**Other Written Contributions**

1. Ayiecho, P.O. 1995. Rice Seed Production Manual for T.J. Cottington (Technical Services) and Lake Basin Development Authority, Kisumu, Kenya.
2. Ayiecho, P.O. and Nyabundi, J.O. 1993. Finger millet and Groundnut Production in Baringo District. A Report for Institutional Capacity Building/Child Survival and Development Project
3. Nyabundi, J.O. and Ayiecho, P.O. 1991. Baringo District Baseline survey: Crop Production Report for Institutional Capacity Building/Child Survival and Development Project.
4. Oggema, M.W., Ayiecho, P.O., Okwirry, J.J., Kibuthu, I. Riungu, T.C., Karanja, D.D., Nganga, C.N., Ocholla, P.O. and Ireri, E.K. 1988. Oil Crop Production in Kenya. Vegetable Ayiecho, P.O. and Odhiambo, M.O. 1987. Research possibilities in the oil crops industry. The case of Oil Crops Development Ltd. A report prepared for the National Academy of Sciences and the Oil Crops Development Ltd.

 Oil/Protein System Programme working paper No.3 Egerton University, 1988.

1. Ayiecho, P.O. and Odhiambo, M.O. 1987. Research possibilities in the oil crops industry. The case of Oil Crops Development Ltd. A report prepared for the National Academy of Sciences and the Oil Crops Development Ltd.

**O. POLITICAL CAREER/LEADERSHIP AND RESPOSIBILITIES AS MEMBER OF**

 **PARLIAMENT**

1. Political activist as from 1990.
2. Political party membership in Kenya:

 1991: Forum for Restoration of Democracy (FORD) member.

 1992 – 1996: Forum for Restoration of Democracy - Kenya (FORD - K) member. 1996 – 2001: National Development Party (NDP) member.

2002 – 2006: Liberal Democratic Party (LDP) member.

2002 – 2007: National Rainbow Coalition (NARC) member.

2006 - 2007: Orange Democratic Movement – Kenya (ODM-K) member.

2007 – 2017: Orange Democratic Movement (ODM) member.

1. Dec. 2002- Oct. 2007: Member of Parliament (9th Parliament of the Republic of Kenya) for Muhoroni Constituency on NARC ticket.

#####  (4) Membership in Committees and Organisations as Member of 9th Parliament of the Republic of Kenya. (2003 – 2007)

 i. Agriculture, Lands and Natural Resources Committee, Kenya National

 Assembly.

 ii. Life member of Commonwealth Parliamentary Association`.

 iii. African Parliamentary Network Against Corruption (APNAC) – Kenya.

 iv. Parliamentary Network on the World Bank (PNoWB).

 v. Global Organisation for Parliamentarians Against Corruption (GOPAC).

 vi. Nyando District Roads Committee.

 vii. Nyando District Development Committee.

 viii. Nyando District Education Board.

 ix. Chairman Muhoroni Constituency Development Fund (CDF) committee

 x. Member and Secretary of Sugar Parliamentary Association

#####  (5) December 2007-Jan.2013 Member of Parliament (10th Parliament of the Republic of Kenya) for Muhoroni Constituency on ODM ticket.

 (6) April 2008-March 2013: Assistant Minister for Education.

#####  (7) Membership in Committees and Organisations as Member of 10th Parliament of the Republic of Kenya. (2008 – 2013)

 i. Life member of Commonwealth Parliamentary Association.

 ii. African Parliamentary Network Against Corruption (APNAC) – Kenya.

 iii. Parliamentary Network on the World Bank (PNoWB).

 iv. Global Organisation for Parliamentarians Against Corruption (GOPAC).

 v. Nyando District Roads Committee.

 vi. Nyando District Development Committee.

 vii. Nyando District Education Board.

 viii. Chairman Muhoroni Constituency Development Fund (CDF) committee

 ix. Member and Secretary of Sugar Parliamentary Association.

 x. Muhoroni District Development Committee.

 xi. Muhoroni District Education Board.

#####  (8) Conferences/Workshops/Seminars/Meetings/Symposia Attended

 i. International – Total of 35 attended.

 ii. National – Total of 55 attended.