



CURRICULUM VITAE

Name : Dr. Okeyo, A. Mwai
Date of Birth : 2nd September, 1955
Nationality : Kenyan
Marital Status : Married with two children
Languages Spoken: English, Swahili, Luo
Profession : Animal Science (Animal Genetics & Breeding)

Current Position/appointments:

- ILRI-Team Leader-Livestock Breeding Strategies-Research May 2010-to-date.
- Theme Leader-Genetics-Livestock and Fish Consultative Group of Agricultural Research Program- Sept 2012—to-date
- Senior Lecturer, Department of Animal Production, University of Nairobi, Kenya, since 2002, and **currently on leave**

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AREA OF SPECIALIZATION AND INTERESTS:

Animal Scientist; Specializing in livestock improvement (Animal genetics and Breeding), with more than twenty five (28) years of experience in practical leadership and management of Cattle, Sheep and Goats genetic improvement programs in Kenya, Eastern African regions, including technical support to similar program in Southern Africa, South Asia, and to some extent in West Africa and South East Asia. Other areas of interest and expertise include: Facilitation of workshops, and meetings. Other areas of interest include: Biodiversity issues, especially characterization and development of indigenous livestock and crops. I am particularly passionate about environmental health, especially tree planting and, soil and water conservation., . Current focus and success has been in the design and execution of participatory and community-based livestock genetic and productivity improvement programmes, especially those aimed at improving the food security and economic well-being of the resource poor in the rural communities, particularly women and children. Other interests include capacity building and mentoring of young animal scientists and front-line extension agents working in the area of livestock improvement in general and facilitation of pro-sustainable policy changes and

implementation advocacy activities and processes. The major strengths include generosity of thoughts, and ability to motivate and support team members to achieve beyond the individual capacity-a great team player.

TERTIARY EDUCATION AND PROFESSIONAL TRAINING

- **PhD** Animal Breeding and Genetics (University of Nairobi)-2000,
- **MSc.** Animal Science (US-Davis)- 1984
- **B.Sc.** (Upper 2nd Class Honours) Agriculture, University of Nairobi -1980

INTERNATIONAL IN-SERVICE TRAINING WORKSHOPS AND COURSES ATTENDED

- 2012 Theory of change and performance and change management, ILRI Nairobi
- 2009 Message and Media Training, July 2009, Nairobi, Kenya
- 2008 Training on Facilitation, March, 2008, Nairobi, Kenya
- 2006 Management and supervisory skills, Nairobi, Kenya
- 2006 Performance Management, Nairobi, Kenya
- 1992 Short Training Course (3-months) on Conservation of Biodiversity, University of California, Davis, California, USA. Genetic Resources.
- 1992 Research Planning workshop on " African Animal Genetic Resources: Their Characterization, Conservation and Utilization".
- 1990 Teacher's workshop -Introduction to applied statistics (Animal Production) ILCA Addis Ababa, Ethiopia.
- 1988 Semen collection, processing and artificial insemination in goats, Nairobi, Kenya.
- 1987 Project Formulation and Management - Feldafing and Berlin Federal Republic of Germany.

EDITORIAL AND PROFESSIONAL BOARD MEMBERSHIP

- Editorial Board of Animal Genetic Resources Information Bulletin (AGRI) of the FAO.
- Editorial board member-Bulletin of Animal Health and Production in Africa
- East African Journal of Agriculture and Forestry
- Ethiopian Journal of Animal Production; Tanzanian Journal Animal Production (Occasional reviewer)
- Livestock Science etc. (occasional reviewer)

PROFESSIONAL MEMBERSHIP AND LEADERSHIP

- Board member-International Goat Association
- Advisory Member-International Foundation of Science
- Member, Organizing Committee , World Congress on Genetics Applied to Livestock Production
- Member, Organizing Committee, African, Agro-biodiversity Conference (2001) and member of African Agro-bio-diversity Platform, Forum for African Research on Agriculture.
- 2007 to-date: Board Member, East Africa Agriculture and Forestry Journal
- Chairman, Faculty Curriculum Review sub-committee.

- Project Technical Reviewer for Commission for Development Studies, Austria
- Chairman, Livestock sub-committee, Nairobi International Show.
- Chairman of Animal Production Society of Kenya (APSK)
- Chairman Finance sub- committee of the 1st All Africa Conference Steering Committee on Animal Agriculture in Africa 1992.
- Organizing Secretary of Animal Production Society of Kenya (APSK)
- Member of University's Semi-arid Research Station and Coordinator of Goat Research.
- Officer in-charge Sheep and goat station - Naivasha (Ministry of Livestock Development)
- 1985 -1987: National Programme Coordinator Sheep and Goat Research Programme by the Kenya Agricultural Research Institute (KARI) (*on interim basis*).

RESPONSIBILITIES AND EMPLOYMENT:

Year/Period	Responsibility and institution
May 2010- To-date	<ul style="list-style-type: none"> • Team Leader, Livestock Breeding Strategies Research- (International Livestock research Institute (ILRI))
Sept 2012-to-date 2004-To-date	<ul style="list-style-type: none"> • Theme Leader-Genetics-Livestock and Fish Consultative Group of Agricultural Research (CGIAR), Research Program- Sept 2012—to-date
2001-2005	<ul style="list-style-type: none"> • Project leader: ILRI-BOKU-Austria Projects on Delivery of genetic change under low input systems in Developing countries (ILRI):
1999-2003	<ul style="list-style-type: none"> • Project Leader, Capacity Building for Sustainable Use of Animal Genetic Resources in Developing Countries, ILRI,
1988-To-date	<ul style="list-style-type: none"> • Head, Animal Genetics and Breeding Section, Department of Animal Production University of Nairobi, Kenya
1980 – 1988;	<ul style="list-style-type: none"> • Lecturer and Senior Lecturer, Animal Genetics & Breeding, Department of Animal Production, University of Nairobi on leave of absence.
1987-1988	<ul style="list-style-type: none"> • In-charge goat Breeding Research Facility and Flock, National Animal Husbandry Research center, Naivasha, Kenya: Scientific Research Division, Ministry of Livestock Development.
To-date	<ul style="list-style-type: none"> • National Coordinator, Sheep and Goat Improvement Research, Kenya Agricultural Research Institute.
To-date	<ul style="list-style-type: none"> • Member of several National Steering and Committees on Livestock related issues • Member of various institution committees (staff development, knowledge management committees, etc.)

GRANTS ATTRACTED, LED AND ACCOMPLISHED RESEARCH

Funded grants:

As primary partner or leading the delivery of promised research outputs:

- Development and Application of Decision Support Tools to conserve and Sustainably Use Genetic Diversity of Indigenous Livestock and their Wild relatives in Sri Lanka, Vietnam, Pakistan and Bangladesh (Global Environmental Fund (GEF) and United National Environmental Program (UNEP).
- Evaluation of Ecological and Economic Sustainability of Breeding Strategies in Pastoral Systems-The case of Ankole cattle (*Austrian Development Agency (on-going)*)
- Production of appropriate crossbred heifers, especially F1 heifers using sexed embryos (*Heifer International*)

As Team Leader and member of multidisciplinary team of scientists delivering on improving Research aimed at Improving Livestock Breeding Strategies under low input production systems:

- Livestock and Fish CGIAR Research Program-Genetics and Breeding Component –US\$ 2 million per year
- More Meat and Milk= Increasing the productivity of dual purpose cattle in Nicaragua through use of appropriate breed types and application of best husbandry practices (Austrian Development Agency (ADA))- Euros, 500,000
- Germplasm for Dairy Development in East Africa. Phase I: Identifying appropriate germplasm and delivery mechanisms (*Bill and Melinda Gates Foundation- 1.3M US\$*)
- East African dairy development project- Improving smallholder dairy farmers' access to appropriate breeding services in Kenya and Uganda-(B&MGF- Part of US\$ 198,000 which is part of 4million –on-going)
- Community-based sheep breeding strategies for sustainable utilization of indigenous genetic resources: the case of open-nucleus breeding scheme in indigenous Ethiopian Horro and Menz sheep breeds (*Austrian Development Agency- -on going US\$: 750,000*).
- Evaluation of functional traits in Holstein-Friesian cattle on commercial farm in the Tropics-the case of Kenya's large scale farms.
- The genetic study component of the improvement and diversification of Somali livestock trade and marketing – *European Union- completed*).
- Community-based goat productivity improvement in Central and South Meru Districts of Kenya.(*Natural Resources International Limited (NRI), UK,- completed*)
- Dairy cattle breeding in West Africa: identifying and promoting appropriate breeds and breed combinations or genotypes for smallholder farmers in Ghana and Mali (*MTT, Finland- 1.6million Euros*).

Submitted grants awaiting communication of decision:

PUBLICATIONS

Book Chapters:

1. Marshall, K., Okeyo, A.M., Johnson, N. 2009. Translating animal breeding research into the real world: use of the sustainable livelihoods framework. In: Walkden-Brown, S.W., van der Werf, J.H.J., Nimbkar, C., and V.S.Gupta (eds.), Use of the FecB (Booroola) gene in sheep-breeding programs (pp. 190-198). ACIAR Proceedings No. 133. Australia Centre for International Agricultural Research: Canberra.
2. Political, economic and social challenges for beef production in Southern Africa.

2012. Scholtz, M.M., N.B. Nengovhela, C. McMmanus, A. Theunissen and A.M. Okeyo. In Developing Countries Political, Economic and Social Issues, **Nova Publishers**

Published and accepted for publication in Scientific Journals:

Contributions include about sixty (**60**) scientific journal and more than **76** publications in proceedings and chapters in books and other electronic publications as senior and co-author and listed below:

1. Zonabend, E., **A.M. Okeyo**, J.M.K. Ojango, I. Hoffmann, S. Moyo and J. Philipsson. 2013 Infrastructure for sustainable use of animal genetic resources in Southern and Eastern Africa. *Animal Genetic Resources* (Accepted).
2. Galukande, E. H, Mulindwa, M. Wurzinger, R. Rischinsky, **A.O. Mwai** and J. Solkner. 2013. Cross-breeding dairy cattle for milk production in the tropics: achievements, challenges and opportunities. *Animal Genetic Resources* 52, 111-125.
3. Maciel S. M., Amimo J., Martins M., **Mwai A. O.**, Scholtz M. M., Naser F. W. 2012. Factors influencing reproductive performance of cows from different Nguni ecotypes in southern Mozambique. *Tropical Animal Health and Production*. 2012 Mar;44 (3):435-44.
4. Maciel, S.M.A., Amino, S., Martins, M., **Okeyo, A.M.** Scholtz, M.M. and Naser, F.W.C. **2012**. Factors influencing reproductive performance of cows from different Nguni ecotypes in southern Mozambique. *Tropical Animal Health and Production*, **44 (3) 435-444**.
5. Bett, R.C., A M Okeyo, I S Kosgey, A K Kahi and K J Peters. 2011. Evaluation of alternative selection objectives and schemes for optimisation of village goat improvement programs. *Livestock Research for Rural Development*. (<http://www.lrrd.org/public-lrrd/proofs/lrrd2401/bett24014.htm>)
6. Duguma G., Mirkena T., Haile A., **Okeyo, A. M.**, Tibbo M., Rischkowsky B., Sölkner J. and Wurzinger M. **2011**. Identification of smallholder farmer and pastoralist's preference for sheep breeding traits: Choice model approach. *The animal Consortium*, DOI:10.1017/s1751731111001029.
7. Kugonza D.R., Nabasirye M., Mpairwe D., Hanotte O. & **Okeyo A.M.** **2011**. Productivity and morphology of Ankole cattle in three livestock production systems in Uganda. *Animal Genetic Resources* **48: 13–22**.
8. Kugonza, D.R., G.H. Kiwuwa, D. Mpairwe, H. Jianlin, M. Nabasirye, A.M. Okeyo and O. Hanotte. **2011**. Accuracy of pastoralists' memory-based kinship assignment of Ankole cattle: A microsatellite DNA analysis. *Journal of Animal Breeding and Genetics*. DOI:10.1111/j.1439-0388.2011.00937.x.
9. Kugonza, D.R., G.H. Kiwuwa, D. Mpairwe, H. Jianlin, M. Nabasirye, **A.M. Okeyo** and O. Hanotte. **2011**. Pastoralists' selection criteria and other breeding practices of the long-horned Ankole cattle of Uganda. *Tropical Animal Health and Production*, **41:D01 10.1007/s11250-011-9935-9**.

10. Kugonza D.R., H. Jianlin, M. Nabasirye, D. Mpairwe, **A.M. Okeyo** and O. Hanotte. **2011**. Genetic diversity and differentiation of Ankole cattle populations in Uganda inferred from microsatellite data. *Livestock Science*, **135**: 140-147.
11. Rege J.E.O., Marshall K., Notenbaert A., Ojango J.M.K and **Okeyo A.M.**, **2011**. Pro-poor animal improvement and breeding – what can science do? *Livestock Science*, **136 (1)** 15-28.
12. Peacock C., C.O. Ahuya, J.M.K. Ojango and **A.M. Okeyo**. **2011**. Practical crossbreeding for improved livelihoods in developing countries: FARM Africa's Goat Model. *Livestock Science*, **136 (1)**: 38-44.
13. Kugonza D. R., Nabasirye M., Mpairwe D., Hanotte O. and **Okeyo A. M.** **2011**. Productivity and morphology of Ankole cattle in three livestock production systems in Uganda (*Animal Genetic Resources*, **48**: 13-22).
14. G. Duguma, G., T. Mirkena, A. Haile, **A.M. Okeyo**, M. Tibbo, B. Rischkowsky, J., Sölkner and M. Wurzinger. **2011**. Identification of smallholder farmers and pastoralists' preferences for sheep breeding traits: Choice model approach. (*Accepted Animal Science*).
15. Yamashiro H, Wando J.R, Okoth E., Sugimura S., Moisyadi S., Sato E, Rege E.O., and **Okeyo M.** **2011**. A case study on cryopreservation of African sheep semen for the Red Maasai, Dorper breeds and their crosses. *African Journal of Agricultural Research*. **2011**.
16. Kosgey, I.S., S.M. Mbuku, **A.M. Okeyo**, J. Amimo, J. Philipsson, J.M. Ojango. **2011**. Institutional and organizational frameworks for dairy and beef cattle recording in Kenya: A review and opportunities for improvement, (*Animal Genetic Resources*, **48**: 1-11).
17. Roschinsky, R., Mulidwa, H., Galuknde, E. ,Wurzinger, M., Mpairwe, D., **Okeyo, A.M.** and Sölkner, J. **2011**. Pasture use and management in the Ankole pastoral systems in Uganda, (*Accepted Journal of Grass and Forage Science*).
18. Mulidwa, H., Roschinsky, R., Galuknde, E. ,Wurzinger, M., Ojango, J., **Okeyo, A.M.** and Sölkner, J. **2011**. Stochastic simulation model of Ankole pastoral production system: Model development and evaluation" (*Ecological Modelling* **222**: 3692– 3700)
19. Gorbach D. M., Makgahlela M. L., Reecy J. M., Kemp S. J., Baltenweck I., Ouma R., **Mwai O.**, Marshall K., Murdoch B., Moore S., Rothschild M. F. **2010**. Use of SNP genotyping to determine pedigree and breed composition of dairy cattle in Kenya. *PLoS Negl Trop Diseases* **4**(11): e880. doi:10.1371/journal.pntd.0000880.
20. Mirkena, T., Duguma, G., Haile, A., Tibbo, **M.**, **Okeyo, A.**, Wurzinger, M., Sölkner, J. 2010. Genetics of adaptation in farm animals: A review. *Livestock Sciences* **132**: 1-12.
21. Duguma, G., T Mirkena, A. Haile, L Iñiguez, **A. M. Okeyo**, M Tibbo, B Rischkowsky, J Sölkner and M Wurzinger. **2010**. Participatory approaches to investigate breeding objectives

of livestock keepers. *Livestock Research for Rural Development 2010, volume 22, Article 64*

22. Galukande, E. Mulindwa, H., Wurzinger, M., **Ally Okeyo Mwai**, Sölkner, J. 2010. Crossbreeding cattle for milk production in the Tropics: Achievements, challenges and opportunities, *Livestock Sciences (accepted with revision)*.
23. Kiplagat S. K., Agaba M., Kosgey I. S., **Okeyo M.**, Indetie D., Hanotte O., Limo M. K. 2010. Genetic polymorphism of kappa-casein gene in indigenous Eastern Africa goat populations. *International Journal of Genetics and Molecular Biology*, Vol 2, (1) pp. 001-005, January 2010. www.academicjournals.org/ijgmb
24. Wurzinger, M., **Okeyo, A. M.**, Semambo, D., Sölkner, J. 2009. The sedentarisation process of the Bahima in Uganda: An emic view. *African Journal of Agricultural Research 4 (10): 1154-1158*.
25. Mulindwa, H., Galukande, E. Wurzinger, M., **Okeyo Mwai, A.**, Sölkner, J. 2009. Modelling of long term pasture production and estimation of carrying capacity of Ankole pastoral production system in South Western Uganda. *Livestock Research for Rural Development, Volume 21, 157* <http://www.lrrd.org/lrrd21/9/muli21157.htm>
26. Muigai, A.W.T., **A.M. Okeyo**, A.B. Kwallah, D. Mburu and O. Hanotte 2009. Characterization of sheep populations of Kenya: Evidence of dilution of the indigenous Red Maasai breed. *South African Journal of Animal Science. 39* (Supplement 1): 93-96.
27. Ojango, J.M.K., B. Malmfors, **A.M. Okeyo** and J. Philipsson. 2009. Capacity building for sustainable use of animal genetic resources in developing countries. *Applied Animal Husbandry & Rural Development, 2: 23-26*.
28. Menjo, D.K., B.O. Bebe, **A.M. Okeyo** and J.M.K. Ojango. 2009. Survival of Holstein-Friesian heifers on commercial dairy farms in Kenya. *Applied Animal Husbandry & Rural Development, Volume 2, 14- 17*. ©South African Society for Animal Science Peer-reviewed paper: 10th World Conference on Animal Production
29. Ahuya, C.O., **Okeyo, A.M.**, Mosi, R.O., Peacock, C. and Ojango, J.M.K. **2009**. Performance of Toggenburg dairy goats in smallholder production systems of the eastern highlands of Kenya. *Small Ruminant Research. 8: 7-13*.
30. Wurzinger, M., D. B Ndumu, R. Baumung, A.G. Drucker, A. M. **Okeyo**, D.K. Semambo and J. Sölkner. **2008**. A comparative analysis of alternative methods for capturing indigenous selection criteria. *Animal Breeding and Genetics (Accepted)*.
31. Menjo, D.K., B.O. Bebe, J.O. Amimo and **A.M. Okeyo** and J.M.K Ojango. 2009. Analysis of early survival of Holstein-Friesian heifers of diverse sire origins on commercial dairy farms in Kenya. *Tropical Animal Health and Production. 41: 171-181*.
32. Wurzinger, M., Ndumu, D., **Okeyo, A. M.**, Sölkner, J. **2008**. The lifestyle and herding

- practices of Bahima pastoralists in Uganda. *African Journal of Agricultural Research*. Vol 3 (8): 542-548.
33. Ndumu, Deo, B., Roswitha Baumung, Olivier Hanotte, Maria Wurzinger, **Mwai A. Okeyo**, Han Jianlin, Johann Solkner. 2008. Genetic and morphological characterisation of the Ankole Longhorn cattle in the African Great Lakes region. *Genetics, Selection and Evolution*. 40:467-490.
 34. Chanda Nimbkar, John Gibson, **Okeyo Mwai** and Paul Boettcher and J. Sölkner. 2008. The State of the World's Animal Genetic Resources: Sustainable use and Genetic improvement. *Animal Genetic Resources Information Bulletin* 42: 49-65.
 35. Ndumu, D.B., R. Baumung, M. Wurzinger, A. G. Drucker, **A.M. Okeyo**, D. Semambo and, J. Sölkner. 2008. Performance and fitness traits versus phenotypic appearance in the African Ankole Longhorn cattle: a novel approach to identify selection criteria for indigenous breeds. *Livestock Science*. 113: 234-242
 36. Reinhard Huber, Roswitha Baumung, Johann Sölkner, Dan Semambo, **Okeyo Mwai** and Christoph Winckler. 2008. Behaviour of Ankole and crossbred (Ankole x Holstein) heifers on pasture in south western Uganda. *Applied Animal Behaviour Science*, 112: 223-234.
 37. Sölkner, J., P. Ruckebauer/J. Vollmann/H. Grausgruber, M. Wurzinger and **A.M. Okeyo**. 2008. Breeding objectives and the relative importance of traits in plant and animal breeding: a comparative review. *Eurocarpia*, 161: 273-282
 38. Thornton, Mario Herrero, Ade Freeman, **Okeyo Mwai**, Ed Rege and John McDermott. 2007. Vulnerability, climate change and livestock-opportunities and challenges for the poor. *Journal of Semi-Arid Tropical Agricultural Research* 4(1). (published online at <http://www.icrisat.org/Journal/specialproject.htm>).
 39. Kosgey, I.S. and **Okeyo, A.M.** 2007. Genetic improvement of small ruminants in low input, smallholder production systems: technical and infrastructural issues. *Small Ruminant Research*. 70:76-88.
 40. Mwacharo, J.M., Okeyo, A.M., Kamande, G. K., and Rege, J.E.O. 2006. The Small East African Shorthorn Zebu cattle in Kenya I. Linear Body Measurements. *Tropical Animal Health and Production*. 38: 65-74.
 41. Wurzinger, M., D. Ndumu, R. Baumung¹, A. Drucker, A. M. Okeyo, D.K. Semambo, N. Byamungu and J. Sölkner. 2006. Comparison of production systems and selection criteria of Ankole cattle by breeders in Burundi, Rwanda, Tanzania and Uganda. *Tropical Animal health and Production* 38:571-581.
 42. Ahuya, C.O., Okeyo, A.M, Mwangi-Njuru and Peacock, C. 2005. Developmental challenges and opportunities in the goat industry: The Kenyan experience. *Small Ruminant Research* 60:197-206.

43. **Okeyo A. M.**, Mosi, R.O. and J.E.O. Rege. 2005. The coat colour: Its relevance and influence on reproductive and productive performance of Kenya Boran cows. *The Kenya Veterinarian*. **28:37-45.**
44. Muasya T.K., R.O. Mosi, **J.W. Wakhungu** and A.M. Okeyo. 2004. A study of the reproductive performance of the dairy cattle heard at the University of Nairobi Veterinary Farm, Kanyariri. *The Kenya Veterinarian*. **27: 106-.**
45. Mwacharo J. M., Otieno C.J. and **A.M. Okeyo**. 2003. Haemoglobin and transferring (Beta-globulin) polymorphism in Indigenous Kenyan sheep breeds. *Bulletin of Animal Production and Health in Africa*. **51: 139-14.**
46. Mwacharo J. M., Otieno C.J., **Okeyo A.M.** and Aman R.A. 2002. Genetic variations between indigenous fat-tailed sheep populations in Kenya. *Small Ruminant Research*. **44(3) 173-178.**
47. Mwacharo J. M., Otieno C.J., **Okeyo A.M.** and Aman R.A. 2002. Characteristics of Indigenous Fat-tailed and Fat-rumped Hair sheep in Kenya: Diversity in Blood Proteins. *Tropical Animal Health and Production*. **34(6) 515-524.**
48. Badamana, M.S., J.W. Wakhungu, **A.M. Okeyo** and S. Shaabani. 2002. Drought monitoring and the effect on livestock production and human welfare in the northern region of Kenya: A case for Isiolo and Wajir Districts. *The Kenya Veterinarian*.
49. Ogara W.O. and **A.M. Okeyo**. 2002. Technology transfer and innovative process in Biomedical sciences in Developing world. *Discovery and innovations*. **14(3/4):155-160.**
50. **Okeyo A. M.** and Mosi, R.O. 2001. Lactation characteristics of Dutch-Friesian cows under semi-arid conditions in Kenya: 305-day milk yield and lactation length. *The Kenya Veterinarian*. **21:3742.**
51. **Okeyo, A.M.**, Ahuya, C.O. and Wanyoike, M.M. 1999. Carcass Tissue distribution and Characteristics of Small East African and Galla goats, and their F1 crosses to Toggenburg and Anglo-Nubian. *Indian Journal of Animal Sciences* **71(9): 868-871.**
52. **Okeyo A. M.** and Mosi, R.O. 1999. Performance of Dutch-Friesian cows under semi-arid conditions in Kenya: Reproductive performance and productive life. *Bulletin of Animal Health and Production in Africa*. **47:**
53. Ruvuna, F., Cartwright, T.C., Blackburn, H., **Okeyo, M.** and Chema, S., 1988. Gestation length, birth weight and growth rates of purebred indigenous goats and their crosses in Kenya. *Journal of Agricultural Science*. **111(2):363-368.**
54. Kayongo, S.B, Wakhungu, J.W and **Okeyo, M.** 1989. Small scale dairy production: The Kenya Experience. *Zimbabwean Society of Animal Production*. **Vol.II.: 51-54.**

55. **Okeyo A. M.**, Mosi, R.O and L.K.I. Langat. 1998. Effects of parity and previous parity status on reproductive performance of Kenya Kenya Boran cows. *Tropical Agriculture Trinidad*. **75: No. 3: 384-389.**
56. **Okeyo A. M.** and C.O. Ahuya. 1998. Factors affecting milk butterfat content of two indigenous Kenyan goat breeds. *Bulletin of Animal Health and Production in Africa*. **46:171-174.**
57. Githigia, S.M., Okomo, M.A. Inyangala, B.A., Munyua, S.J., **Okeyo, M.** and Otieno, R. 1996. Prevalence and infection levels of helminths in goats at Machanga field station over a period of one year. *Bulletin of Animal Health and Production in Africa*. **44: 111-113.**
58. Ruvuna, F., J.F. Taylor, **M. Okeyo**, M. Wanyoike and C. Ahuya. 1992. Effects of breed and castration on slaughter weight and carcass composition of goats. *Small Ruminant Research*. **7: 175-183.**
59. Ruvuna, F., Cartwright, T.C., Blackburn, H., **Okeyo, M.** and Chema, S., 1988. Lactation performance of goats and growth rates of kid under different milking and rearing methods in Kenya. *Animal Production*. **46:237-242.**
60. L.C. Iniguez, G.E. Bradford and **Okeyo A. Mwai**. 1986. Lambing Date and Lambing Production of Spring-mated Rambouillet, Dorset and Finn sheep Ewes and their F1 Crosses, *Journal of Animal Science*. **63: 715-728.**

MANUSCRIPTS ALREADY SUBMITTED FOR PUBLICATION

- Scholtz. MM., C McManus, A.M. Okeyo, H Louvandini and L Seixas. Beef production in developing countries of the southern hemisphere: I Challenges. (*South African Journal of Animal Science*)
- Muasa B.S., Mutemebi H.M., Tsuma V.T., Origa R. A. and Okeyo A.M. . Effect of the follicle size of origin on developmental competence of oocytes of the Boran cow.

MANUSCRIPTS UNDER PREPARATION

- Elizaphan J.O. Rao, Isabelle Baltenweck, Pradeepa Silva, A. K. F. H. Bhuiyan, Sajjad Khan, Le Thi Thuy, **Okeyo Mwai**, Mohamed M.N. Ibrahim and Jane Poole. 2013. Diversity in farm animal species and impacts on food security: The case of chicken rearing in some countries in South and South East Asia . 2013 . (*Ready for submission*).

PUBLICATIONS IN PROCEEDINGS OF SELECTED CONFERENCES AND WORKSHOPS:

1. Ojango, J.M.K., J. Audho., A.G. Marete, E. Zonabend, J. Philipsson, E. Strandberg and **A.M. Okeyo**. 2013. Survival and adaptability of indigenous Red Maasai sheep and their crosses in arid lands of East Africa in the face of drastically changing climatic conditions. *Proceedings of EAAP Annual Meeting 2013, Nantes, France*.
2. *Félix Meutchieye; Brigitte Maass; Wanjiku Chiuru; Aziwo Niba Tatanji; Gaston Amzati; Mwai Okeyo; Appolinaire Djikeng; Dorothy Fon Engwali; Manjeli Yacouba*. 2013. Domestic cavies in Cameroon and eastern DR Congo for nutrition security and income diversification. 2013. *Proceedings of EAAP Annual Meeting 2013, Nantes, France*
3. Okeyo, A.M., Gabrielle, P. and Kemp, S. 2011. Livestock and Biodiversity: The Case of Cattle in Africa. Biodiversity and the World Food Security; Nourishing the Planet and its People. In Brown A.G. (ed.). Proceedings of the Crawford Fund 16TH Annual Development Conference, Parliament House, Canberra, 30th August-1st September, 2010., Canberra, Australia. pp 37-43. (<http://www.crawfordfund.org/home/view.html?publication=411&rt=1>.)
4. Haile A.1, Duguma G., Mirkena T., Tibbo M., Okeyo M., Rischkowsky B., Iñiguez L., Wurzinger M., and Sölkner J. Indigenous knowledge of community in animal management and breeding: a vital input in designing community based sheep breeding. *Tropentag. 2010*.
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- Okeyo, A.M. and R.O. Mosi. 2006. Artificial insemination- a bio-technological tool for genetic improvement of dairy cattle in developing countries: Achievements and challenges-the Kenyan Experience.

TEACHING AND POST GRADUATE RESEARCH SUPERVISION

Teaching experience:

- Teaches postgraduate courses in Animal Breeding and Genetics at University of Nairobi from 2000 to-date
- Taught undergraduate and postgraduate courses in Animal Breeding and Genetics at University of Nairobi from 1988 to-2004.
- Supervise and examines MSc and PhD thesis research in various universities: 2000-To-date.
- Training courses on: 1) Improving understanding of tropical Indigenous Animal Genetic resources 2) Sustainable Breeding Programs to teachers and researchers in developing countries

Post -graduate students supervised and being supervised:

PhD Thesis research supervision:

- **Emelie Zonabend:** Breeding strategies for conservation and sustainable use of livestock genetic resources in Sub-Saharan Africa. *Swedish University of Agricultural Sciences (SLU), Sweden (on-going).*
- **Ambia Akhtar:** Characterization and In-Situ Improvement of Black Bengal Goat of Central Part of Bangladesh Through a Community Driven Breeding Program, *Bangladesh Agricultural University, Bangladesh (ongoing).*
- **S.M. Mbuku:** Breeding strategies for goats to buffer against climate variability for pastoralist communities in arid Kenya (*Egerton University, on-going*)
- **Gemeda Duguma Jaleta.** Participatory definition of breeding objectives and implementation of community-based sheep breeding programs in (BOKU University of Natural Resources and Life Sciences (*Completed, Nov, 2010*))
- **Tadele Mirkena, Keba.** Identifying breeding objectives of smallholders/pastoralists and optimizing community-based breeding programs for adapted sheep breeds in Ethiopia (BOKU University of Natural Resources and Life Sciences (*Completed, Nov, 2010*)).
- **Henry Mulindwa (PhD);** *Modeling of ecological and economic sustainability of a pastoral production system in Uganda* (BOKU University, Austria (*Completed in March, 2010*))
- **Esau Galukande (PhD);** *Evaluation of ecological and economic sustainability of breeding strategies in pastoral systems: The case of Ankole cattle-Description of production systems* (BOKU University, Austria (*Completed in March, 2010*))
- **Donald Kugonza (PhD);** *Genetic diversity, selection criteria and verification of kinship assignment based on oral indigenous knowledge of Ankole cattle* (*Makerere University, Uganda-Completed in Nov. 2009*)
- **James Pattison (PhD);** *A study of pastoral livelihoods and utilisation of indigenous animal diversity-The Orma Pastoralists of Coastal Province,* (University of Edinburgh, UK., *Started Field Research in Nov., 2007*)
- **Deo Birungi Ndumu (PhD, 2007);** *Indigenous Selection Criteria and Genetic Diversity in the African Ankole Longhorn cattle,* (BOKU University, Austria-*Completed in March 2007*)
- **C.O. Ahuya. (PhD);** *Sustainable breeding structure and programme for crossbred milk goat populations in Eastern Kenya Highlands: A case of the Farm Africa-Meru Goat Breeders Association.* (University of Nairobi- was to **Not yet.**)

MSc Thesis research supervision:

- Netsanet Zergaw, Phenotypic characterization and Performance evaluation of goat populations in Ethiopia: West Shewa and Konso, Harmaya University, Ethiopia (**on-going**)
- Ruth Akinyi Origa. Comparative Assessment of Fertility Characteristics of Stud Bull Semen in Kenya based on in-vivo and in-vitro Criteria, (*University of Nairobi, Clinical studies, Completed 2013*).
- Francis Anunda (MSc); Appraisal of the dairy cattle breed choices, relative performance and inbreeding levels among and in the small-holder dairy herds in Kenya. . (*University of Nairobi-Completed, 2012*).
- **Charles Odhong'**, Genetic Evaluation of Exported Kenya Boran Cattle Embryos (*Department of Animal Production, University of Nairobi (Completed, July, 2010)*).
- **Bridgit Syombua Muasa**, Effect of follicle size and cumulus oocyte complex grade on in vitro embryo developmental competence for boran cows, (*Clinical Studies Department University of Nairobi (Completed in November, 2010)*).
- Denis Misiko (MSc); Characterization of the diversity and purity of indigenous fat-tailed sheep in Kenya using microsatellite analysis (*Jomo Kenyatta University of Agric. & Technology- Completed, October, 2010*).
- Allan Ole Kwallah (MSc, 2006); Genetic characterization and conservation of indigenous Kenyan sheep populations (*Jomo Kenyatta University of Agric. & Technology-completed*).
- Dominic, Menjo (MSc. 2007). Evaluation of functional traits in Holstein-Friesian cattle on large-scale farms in Kenya (*Egerton University, Completed in Nov., 07*)
- Noely Byamungu (Msc, 2006); Assessment of farmers' selection criteria for breeding and genetic diversity of Ankole cattle in Western Tanzania (*Sokoine University of Agriculture, Tanzania-Completed, 2006*).
- Joseph Kamau (Msc, 2006); Fine mapping of trypanosomosis resistance loci in murine by haplotype approach (*University of Nairobi-Completed, 2007*).
- Reinhard Huber (MSc); Behaviour of Ankole and crossbred (Ankole x Holstein) heifers of pasture in south western Uganda. (*BOKU University, Austria, Completed, 2006*).
- J.M. Mwacharo. 2000. Characterization of the genetic diversity of indigenous Sheep Populations in Kenya using blood biochemical polymorphisms. (*University of Nairobi-completed, 2000*).
- K.N. Osolo. 1998. *Botanical composition and selection of forage by goats at Machang'a*. . (*University of Nairobi-completed, 2000*).

CONTRIBUTION TO NATIONAL COMMITTEES

- Member-Kenyan Task Force for the Preparation of the State of the World Report on Animal Genetic Resources.
- Member-Advisory Board-International Foundation of Science (IFS)
- Member-Kenya National Animal Genetic Resources Advisory Committee to the Minister responsible for Livestock Development in Kenya
- Member-Kenya Animal Breeding policy Task force, Ministry of Livestock Development , Kenya
- Member of ILRI's Taskforce on Climate Change
- Former Chairman (1990-1993) and Trustee- Animal Production Society of Kenya (to-date)
- Chairman- Kenya Goat Development Network and member-East African Goat Development Network
- Member of Drafting Committee, Kenya's National Livestock Breeding Policy.