

# **Curriculum Vitae of**

## **SILVESTRO MESEKA**



### **PERSONAL INFORMATION**

<b>Full Name:</b>	MESEKA Silvestro Kaka
<b>Nationality:</b>	South Sudanese
<b>Languages:</b>	English, Arabic, and working knowledge of French

### **EDUCATION AND PERSONAL DEVELOPMENT**

#### **2001 - 2005**

University of Gezira, Wad Medani, Gezira State, Sudan  
PhD in Plant Breeding and Genetics

#### **1997 - 2000**

University of Gezira, Wad Medani, Gezira State, Sudan  
MSc in Plant Breeding and Genetics

#### **1991 - 1996**

University of Juba, Khartoum, Sudan  
BSc in Crop Science (Agricultural Sciences)

#### **1987 - 1990**

Juba Day Secondary School, Juba, South Sudan  
National Senior Secondary School Leaving Certificate

#### **1984 - 1986**

ST Joseph's Intermediate School, Juba, South Sudan  
National Junior Secondary School Leaving Certificate

#### **1978 - 1983**

ST Joseph's Primary School, Juba, South Sudan  
National Primary School Leaving Certificate

## ADDITIONAL SKILLS AND QUALIFICATIONS

Innovation platform for implementing agricultural projects	2015
Basic Principles of Mentoring Female Researchers	2014
Basic course in Genomics & Bioinformatics	2013
Advanced course in Project Monitoring and Evaluation	2012
Basic course in Project Monitoring and Evaluation	2011
Fundamentals of Seed systems in Africa	2011
Gender responsive agricultural project development	2010
Basic course in Mentoring Young African Researchers	2010
Fieldbook software for data management	2007
Breeding maize for multiple stress tolerance	2007
NERICA-Rice technical training on breeding & field management	2006
Variety Development and Release for production	2005
Statistical Computation with GGE Biplot Analysis	2005
Basic course in Research grant proposal writing	2005
Course in How to write and publish scientific papers	2003
Statistics and Statistical Computation with SAS	2002
Course in Microsoft Power Point & Internet	2001
Computer Applications ( <b>Diploma</b> )	1999
Breeding for abiotic and biotic stress tolerance	1998

## CORE SKILLS

### *A. Professional*

- Management of quality seed production of Maize, Sorghum and Pearl Millet.
- Identification and selection of quality protein maize using light box.
- Training of national scientists and seed specialists in seed production and marketing.
- Research project formulation, design, implementation, monitoring & evaluation.
- Experimental designs, field management and statistical analysis.
- Coordination of international, regional and national field trials such as those for abiotic stresses, resistance to diseases, Striga and good agronomic type.

- Project reporting in line with Donor institutions requirements.
- Identification of important abiotic stresses and diseases in field crops.
- Management of fields with problematic soils (low nitrogen, Striga, micro-nutrients deficiency)

**B. *Personal Strength***

- Excellent spoken and written communication skills in English.
- Living abroad experience.
- Drive for results
- Ability to interact with people of different cultural backgrounds.
- Work with minimum supervision.
- Experience in working with international and national scientists in Sub-Saharan Africa.
- Experience of working in post-conflict countries (South Sudan, Liberia and Sierra Leone).

**C. *Computer***

- Knowledgeable in operating PC computers.
- Excellent working knowledge of Microsoft packages (word, excel, powerpoint) and electronic communications (internet, skype).
- Statistical Analysis System (SAS), and Genotype Genotype-by Environment Biplot Analysis (GGE-biplot) softwares for analyses of maize data.

## **CAREER HISTORY**

May 2015 to date

**Professor of Plant Breeding & Genetics – Department of Crop Science, College of Natural Resources and Environmental Studies, University of Juba, Juba, Republic of South Sudan**

**Key Responsibilities:-**

- Teach final (5<sup>th</sup>) year students in Plant Breeding and Genetics.
- Supervise postgraduate students (MSc & PhD) research projects.
- Write prepare new proposals for funding.
- Lead innovation platform for promotion of agricultural technologies in South Sudan.
- Prepare manuscripts for publication in peer-reviewed scientific journals.
- Attend meetings/ workshops organized by other institutions and organizations.
- Participate in the promotion of teaching staff at the University of Juba.
- Participate in the activities of National Research Council.
- Participate in the National Variety Release Committee meetings.

**Key Achievements:-**

- One PhD and three MSc students supervised.
- Guidelines for Cowpea variety release for South Sudan developed.
- Training manual for innovation platform drafted.
- Junior teaching staff promoted.

October 2013 to date

**Maize Breeder SARD-SC (AfDB) Project - Maize Improvement Programme, R4D International Institute of Tropical Agriculture (IITA) Ibadan, Nigeria**

**Key Responsibilities:-**

- Lead development of high yielding maize hybrids and varieties tolerant to combined effects of heat and drought stresses for dissemination to partners in Sub-Saharan Africa.
- Participate in capacity building of young scientists and technical staff of national agricultural research systems (NARS) and Seed Companies in conduct of field trials, production and marketing of good quality seeds.
- Visit the Regional trials in Nigeria.
- Assist the national scientists in analyzing the field data for variety evaluation and release.
- Participation in operationalizing innovation platform for maize value chains.
- Oversee production of breeder and foundation seeds at IITA-Mokwa sub-station, Nigeria.
- Participate in seed production research at IITA-Ikenne sub-station, Nigeria.
- Mentor young researchers of NARS in targeted countries in Sub-Saharan Africa.
- Write project reports and prepare new proposals for funding.
- Prepare manuscripts for publication in peer-reviewed scientific journals.
- Attend meetings/ workshops organized by partners.

**Key Achievements:-**

- Protocol for screening maize genotypes for combined heat and drought stress developed.
- Innovation platform for project implementation established.
- Capacity of national agricultural research systems and seed companies built to produce and market good quality seed.
- Sufficient quantity of breeder and foundation seeds produced and shared with partners.

February 2013 to date

**Coordinator, Maize (CRP) seed systems in Cameroon and DR Congo - Maize Improvement Program, R4D International Institute of Tropical Agriculture (IITA) Ibadan, Nigeria**

**Key Responsibilities:-**

- Organize regional maize trials for testing with partners in Cameroon and DR Congo.
- Coordinate sub-contract agreement between IITA and NARS.
- Assist the NARS in writing research proposal.
- Visit the maize trials in Cameroon and DR Congo.
- Assist the national scientists in data analysis and report for variety release.
- Facilitate capacity building of the NARS partners in seed production and marketing.

- Facilitate operationalization of innovation platforms in Cameroon & DRC.
- Technical backstopping of the national scientists in conducting of field trials.

#### **Key Achievements:-**

- Small grant research projects implemented in Cameroon and DR Congo.
- Superior maize varieties/ hybrids for on-farm testing and release identified.
- Technical capacity of the national scientists built to conduct good field trials and seed production.
- Sensitization of the national partners on implementation of IP along maize value chain.

March 2011 to September 2013

**Coordinator/ Maize breeder, AGRA-PASS/ IITA Project - Maize Improvement Program, R4D International Institute of Tropical Agriculture (IITA) Ibadan, Nigeria**

#### **Key Responsibilities:-**

- Lead selection of candidate maize hybrids and production of the hybrid seeds for dissemination to partners in Burkina Faso, Ghana, Liberia, Mali, Niger, Nigeria and Sierra Leone.
- Coordinate conduct of regional hybrid maize trials in Burkina Faso, Liberia, Mali, and Sierra Leone.
- Participate in seed production research in IITA locations (Ikenne & Mokwa) in Nigeria.
- Organize training for technical staff of national agricultural research systems (NARS) and Seed Companies in Burkina Faso, Ghana, Liberia, Mali, Niger, Nigeria and Sierra Leone.
- Visit the Regional field trials in Burkina Faso, Liberia, Mali, Nigeria and Sierra Leone.
- Assist the national scientists in analysing maize data for variety release.
- Backstop the national scientists in conduct of research and data collection.
- Participate in developing high yielding maize varieties and hybrids with desirable adaptive traits under drought tolerant maize for Africa (DTMA) project.
- Mentor young researchers of NARS in targeted countries in West Africa.
- Write project reports in line with Donor requirements.
- Prepare new project proposals for funding.
- Prepare manuscripts for publication in peer-reviewed scientific journals.
- Attend meetings/ workshops organized by partners.

#### **Key Achievements:-**

- Improved maize varieties/ hybrids released in Ghana, Mali, and Nigeria.
- High yielding maize varieties/ hybrids out-scaled by smallholder farmers.
- Capacity of indigenous seed companies and NARS developed in quality seed production and marketing.
- Sufficient quantity of breeder and foundation seeds produced and shared with partners.
- Young researchers and technicians mentored to conduct research and deliver good results.

October 2010 to March 2011

**Consultant - Seed Security Systems in South Sudan: Food and Agricultural Organization of the United Nations (FAO), Juba office, Southern Sudan**

**Key Responsibilities:-**

- Develop crop improvement (Plant breeding) and variety release structures for South Sudan.
- Develop guidelines for formal seed systems and variety release in South Sudan.

**Key Achievements:-**

- Seed security systems of South Sudan assessed and documented.
- Major crop varieties introduced in South Sudan identified and catalogued.
- Guidelines for variety registration and release developed.
- A book on Seed Security Systems in South Sudan published - FAO & et al., Publication.

March 2010 to February 2011

**Associate Research Professor of Plant Breeding and Genetics, Consultant: Agriculture and Forestry Development (the World Bank) Project, Ministry of Agriculture and Forestry, Government of South Sudan**

**Key Responsibilities:-**

- Lead introduction of improved field crops to and development of new genotypes in South Sudan.
- Lead production of breeder/ foundation seeds as well as seed bulking of adapted varieties (informal seed systems) with the local farmers.
- Training of local farmers in seed bulking and production of local crop varieties.
- Training of young scientists and assistant researchers in management of research fields, data collection and analysis, writing of scientific reports and research proposals.
- Write project reports and prepare new proposals for funding.
- Assist the ministry in restructuring the National Research system in South Sudan.
- Participate in Harmonization of seed law and regulations in Eastern and Southern Africa under the Common Markets of Eastern and Southern Africa (COMESA).
- Attend regional meetings (ASARECA – NERICA Rice, COMESA-Regional Seed Harmonization Forum, and CIMMYT-Maize Working Group).

**Key Achievements:-**

- Capacity of the local farmers and national researchers to produce quality seed developed.
- Several varieties of maize, sorghum, pearl millet, rice, sesame, cowpea and soybean introduced to South Sudan.

- Joint project for up-scaling NERICA rice in south Sudan and northern Uganda developed and funded by ASARECA.
- Research programme at the Ministry of Agriculture & Forestry restructured.
- Research policy and research programme for South Sudan formulated and developed.
- Capacity of young national scientists and technical support staffs developed.
- Seed harmonization policy in Eastern and Southern Africa formulated for implementation.

January 2010 to June 2011

**Associate Research Professor of Plant Breeding and Genetics: Cereals Research Programme, Agricultural Research Corporation, Wad Medani, Sudan**

**Key Responsibilities:-**

- Conduct on-station, multiple location trials and on-farm research for yield improvement of maize and pearl millet under drought stress and optimum growing conditions in the Sudan.
- Lead production of breeder/ foundation seeds of improved maize varieties and Pearl millet.
- Organize training for young scientists and assistant scientists on data collections and analysis as well as writing of scientific reports.
- Write project reports in line with the institutional and donor requirements.
- Prepare new proposals for funding.
- Present annual programme and budget to the ARC- Research Council.
- Prepare and publish research articles in peer-reviewed scientific journals.
- Assist the national coordinator of maize programme in day-to-day management of staff and research equipments.

**Key Achievements:-**

- Two varieties of Quality protein maize (QPM:- Yei-1 & Yei-2) released for production.
- Four research projects developed and funded by a regional agricultural body (Eastern Central Africa Maize Network- Coordinated by CIMMYT/Kenya) and implemented.
- Sufficient quantity of breeder and foundation maize and pearl millet seeds produced and disseminated to local partners.
- Capacity of young scientists and assistant scientists developed.

June - November 2007

**Visiting Scientist, Maize Research Programme, International Center for Maize and Wheat Improvement (CIMMYT), CIMMY-Kenya**

**Key Responsibilities:-**

- Preparations and conduct of Regional maize trials.
- Production of breeder seeds of maize hybrids.
- Screening of Quality protein maize (QPM) seeds using life-box.
- Participate in development of drought & low-N tolerant high-yielding maize varieties and hybrids.
- Screening of maize genotypes for resistance to Striga, stem borers and store pests.
- Management of problematic soils (iron and zinc deficiency).
- Visit national maize breeding programs in Ethiopia, Kenya, Tanzania and Uganda.

**Key Achievements:-**

- Regional trials involving drought tolerant and Striga resistant varieties implemented with partners in Ethiopia, Kenya, Tanzania and Uganda.
- Sufficient quantity of breeder seed of selected hybrids and varieties produced and shared with the national scientists in the East and Central Africa (ECA) region.

August 2005 - December 2010

**Assistant Research Professor of Plant Breeding and Genetics: Cereals Research Programme, Agricultural Research Corporation, Wad Medani, Sudan**

**Key Responsibilities:-**

- Improvement of maize for abiotic (drought and low levels of soil nitrogen) stress and improvement of yield potential of Pearl millet for irrigated and rain-fed agricultural sectors in the Sudan.
- Screening of regional maize trials for drought and Striga.
- Design and implementing national and multi-location trials; on-farm trials and demonstrations.
- Lead production of breeder/ foundation seeds of improved maize varieties and Pearl millet.
- Maintenance of breeder seed of released maize and pearl millet varieties.
- Management of regional maize trials in collaboration with CIMMYT-Kenya.
- Management of international maize trials in collaboration with IITA-Ibadan, Nigeria.
- Presentation of annual programme and budget to the ARC- Research Council.
- Representative of the Agricultural Research Corporation (ARC) of Sudan on Quality Protein Maize (QPM) with the Association to Strengthen Agricultural Research in Eastern & Central Africa (ASARECA) and Eastern and Central Africa Maize Working group.
- Writing of project proposals for funding & management of small grand research projects.



- Attend Cereals Research programme meetings at both national and regional levels.
- Data analysis and reporting according to institutional and donor requirements.
- Prepare and publish research articles in peer-reviewed scientific journals.
- Assist the national coordinator of maize improvement programme in day-to-day management of staff and research equipment.

**Key Achievements:-**

- Three high yielding maize hybrids released for production in the Sudan.
- Capacity of young scientists and technicians in field and data management developed.
- New small grant projects developed and funded by CIMMYT-Kenya.
- Sufficient quantity of breeder seed of selected Maize and Pearl millet varieties produced and shared with the national partners.

September 2001 to August 2005

**Research Fellow, Maize Improvement Programme, International Institute of Tropical Agriculture (IITA), Ibadan, Nigeria**

**Key Responsibilities:-**

- Development of maize hybrids from tropical and temperate inbred lines for tolerance to drought and low levels of soil Nitrogen (low N).
- Management of maize hybrids and inbred trials under drought and low-N conditions.
- Data collection and analyses.
- Maintenance of maize inbred lines with differential reactions to drought and low soil nitrogen.
- Seed production of maize hybrids (single and three-way crosses).
- Preparation of manuscripts for publication in scientific journals.
- Writing of annual progress reports.

**Key Achievements:-**

- New stress tolerant maize hybrids developed and shared with partners in regional trials.
- Manuscripts developed and published in refereed journals.
- PhD thesis developed and defended in good time.

August 2000 to September 2001

**Research Scientist: Cereals Research Programme, Agricultural Research Corporation, Wad Medani, Sudan**

**Key Responsibilities:-**

- Carry out collaborative regional/ international maize trials with CIMMYT, IITA, and PANAR Seed Company.
- Design and implementing national maize trials.
- Maintenance of introduced maize inbred lines.
- Development of varietal hybrids and synthetics from local maize landraces and exotic open pollinated varieties.
- Maintenance and production foundation seed of released maize open pollinated varieties.
- Management of maize breeding nurseries.
- Writing small grand project proposals for funding.
- Assist the national coordinator of maize improvement programme in the day-to-day activities of the programme.
- Attend programme's meetings at both national and regional (ASARECA) levels.

**Key Achievements:-**

- Collaborations with international agricultural research centers strengthened.
- Two varietal maize hybrids developed from the local landraces.
- Sufficient quantity of foundation seed of maize open pollinated varieties produced and shared with the local partners.

May 1998 to August 2000

**Assistant Scientist: Maize Improvement Programme, Agricultural Research Corporation, Wad Medani, Sudan**

**Key Responsibilities:-**

- Carry out regional maize trials from CIMMYT & PANAR Seed Company.
- Production of breeder and foundation seed of some open pollinated maize varieties released in the Sudan.
- Management of breeding nurseries for maize improvement.
- Data analysis using MSTAT-C computer package.
- Assist the National Coordinator in designing and implementing national maize trials.

**Key Achievements:-**

- Genetic purity of improved maize varieties maintained.
- Experience in management of maize trials gained.
- Sufficient quantity of breeder and foundation seeds of open pollinated maize varieties produced and shared with the national partners.
- Knowledge and skills in data managed and breeding techniques acquired.

March 1997 to May 1998

**Assistant Research Scientist: Sorghum Improvement Programme, Agricultural Research Corporation, Wad Medani, Sudan**

**Key Responsibilities:-**

- Assist in carrying out field trials of sorghum hybrids (PANAR Seed Co.) and open pollinated varieties of sorghum.
- Management of sorghum field trials.
- Data collection and management.
- Maintenance of parental lines (A, B & R) of the first sorghum hybrid (**Hagyine Dura-1**) released in the Sudan.
- Assist in seed production of sorghum hybrids (PANAR Seed Co.)
- Assist in seed production of sorghum forage “PAN-666” (PANAR Seed Co.)

**Key Achievements:-**

- Skills in conduct of field experiments acquired.
- Capacity in data collection, entry and management developed.
- Knowledge and skills in hand pollination of hybrid sorghum acquired.

**Key Agricultural Projects Participated in/ Managed (2007 – 2015).**

- Support to Agricultural Research for Development for Special Crops (SARD-SC) in Africa being implemented in Ghana, Mali, Nigeria and Zambia funded by the African Development Bank: **Level of engagement – Maize breeder/ Field fellow.**
- Dissemination of improved maize hybrids to partners in seven West African States (Burkina Faso, Ghana, Liberia, Mali, Niger, Nigeria and Sierra Leone). Funded by Alliance for Green Revolution in Africa. 2010 - 2013. **Level of engagement – Coordinator.**
- Support to Agriculture and Forestry Development Project - Funded by the World Bank and implemented by Ministry of Agriculture in South Sudan - March 2010 - February 2011. **Level of engagement – Consultant**
- Dissemination of Upland Rice in post-war Southern Sudan and Northern Uganda – Funded by ASARECA - 2010. **Level of engagement – Focal point**
- Development of Drought tolerant Maize Hybrids for Food Security and Improvement of Livelihood in Northern Sudan- Funded by CIMMYT- 2008. **Level of engagement – Focal point.**
- Evaluation of Drought Tolerant Open Pollinated Maize Genotypes for Food Security in the Sudan Gezira- Funded by CIMMYT - 2008. **Level of engagement – Focal point**

- Up-grading of irrigated facility for screening maize genotypes for drought tolerance in Wad Medani, Sudan- Funded by CIMMYT - 2008. **Level of engagement – Focal point**
- Introduction of Quality Protein Maize for Poverty Alleviation of Subsistence Farmers in the Post-conflict Sudan- Funded by CIMMYT- 2007. **Level of engagement – Focal point**

## **FELLOWSHIP AND AWARDS**

Visiting Scientist, IITA-Ibadan (2011 - 2013)

Visiting Scientist, CIMMYT-Kenya (2007)

Research Fellow (PhD fellowship), IITA-Ibadan, Nigeria (2001 - 2005)

Fellowship (MSc), Agricultural Research Corporation, Sudan (1997 - 2000)

## **LEADERSHIP/ MEMBERSHIP OF ACADEMIC ASSOCIATIONS**

Member, American Society of Agronomy & Crop Science Society of America (2014 to date)

Mentor, African Women in Agricultural Research and Development (2014 to date)

Coordinator, CRP Maize seed system in Cameroon and DR Congo (2013 to date)

Coordinator, Dissemination of hybrid maize in seven targeted countries West Africa (2011 - 2013)

Focal point for “Up-calling NERICA Rice in post-conflict southern Sudan and northern Uganda” project (2010 - 2011).

Mentor of post-graduate students and research systems under SCARDA – ECA (2010 - 2011).

Editor, Journal of Applied Biosciences, Nairobi, Kenya (2007 to date).

Member, review committee, Journal of Agricultural Sciences, University of Gezira, Sudan (2006 – 2010).

Member, International Association of Research Scholars and Fellow (IARSAF), IITA, Ibadan, Nigeria (2001 - 2005).

Vice president, IARSAF, IITA, Ibadan, Nigeria, (2002 - 2003).

Head, research team, provision of emergency agricultural inputs to subsistence farmers in conflict zone, Behr El-Ghazal, Sudan, April – June 2000.

President, Students’ Association of College of Natural Resources and Environmental Studies, University of Juba, Khartoum, Sudan, 1994 - 1995.

President, Mundri Students’ Association in Higher Institutions of Learning in the Sudan, 1993 - 1994.

Medical Administrator, Action International Contre la Faim (AIFC-France), Juba, Sudan, 1990 – 1991.

Chairman, Young Farmers' Club, Juba Day Secondary School, Juba, Sudan, 1987 – 1989.

## PUBLICATIONS

### A. Refereed Papers & Conference Proceedings

1. S. Meseka, A. Menkir, S. Olakojo, A. Jalloh, N. Coulibaly, and O. Bossey. 2016. Yield stability of yellow maize hybrids in the savannas of West Africa. *Agronomy Journal*. 108(4):1 – 8. DOI 10.2134/agronj2015.0366.
2. S. Sesay, D. Ojo, A. Ariyo, and **S. Meseka**. 2016. Genetic variability, heritability, and genetic advance studies in top-cross and three-way cross maize (*Zea mays* L.) hybrids. *Maydica*.
3. S. Meseka, A. Menkir and Kwadwo Obeng-Antwi. 2014. Exploitation of beneficial alleles from maize (*Zea mays* L.) landraces to enhance performance of elite variety in water stress environments. *Euphytica* DOI 10.1007/s10681 - 014-1214-1
4. J. Ishaaq and **S. Meseka**. 2014. Genetic stability of grain yield and principle component analysis in pearl millet (*Pennisetum glaucum* L.). *Greener Journal of Plant Breeding and Crop Science*. 2(4): 088 - 092.
5. J. Ishaaq and **S. Meseka**. 2014. Variability and grain yield potential of pearl millet (*Pennisetum glaucum* (L) R. Br.) genotypes under irrigated conditions in the Sudan. *Canadian Journal of Plant Breeding* 2(2): 76 – 79.
6. J. Ishaaq and **S. Meseka**. 2014. Performance of different pearl millet genotypes under irrigated conditions. *International Journal of Environment* 3(3): 154 – 163.
7. S. Meseka, A. Menkir, B. Badu-Apraku, M. Gedil, and T. Abdoulaye. 2014. Advances in breeding maize for drought tolerance in West Africa. IITA-Bukavu, DR Congo, 3 - 5 May 2014.
8. S. Meseka, M. Fakorede, S. Ajala, B. Badu-Apraku and A. Menkir. 2013. Introgression of alleles from local maize collections to improve drought tolerance in an adapted germplasm. *Journal of Crop Improvement*, 27: 96 - 112.
9. S.K. Meseka, A. Menkir, A. E.H. Ibrahim, S.O. Ajala. 2013. Genetic analysis of maize inbred lines for tolerance to drought and low nitrogen. *JONARES*, 1: 29 - 36.
10. A. Menkir, B. Badu-Apraku, T. Abdoulaye, M. Gedil, A. Tegbaru, **S. Meseka**, S. G. Ado, K. Obeng-Antwi, C.G. Yallou, N. Coulibaly, H. Alidu, G. Olaoye, I.Y. Dugje, J.E. Onyibe, R.A. Omolehin, S.S. Buah, H.Asumadu, R.A.L. Kanton, A. Sanni Ogbon, N.M. Baco, M. Abdulai, and L. Traore. 2013. Progress in Breeding Drought Tolerant and High-Yielding Maize in West Africa. Paper presented at the DTMA Annual Planning Meeting, September 23 – 27, 2013, Nairobi, Kenya.
11. Tony Ngalamu, James Odra, **Silvestro Meseka**. 2013. Effects of planting date on yield related traits of some soybean germplasm in Sennar State of Sudan. *Journal of Applied Agricultural Research* 5(1).
12. Tony Ngalamu, Mohammed Ashraf, **Silvestro Meseka**. 2013. Soybean (*Glycine max* L. Merrill) genotypes and environmental interaction effect on yield and other related traits. *American Journal of Experimental Agriculture*, 3(4): 977 - 987.
13. S. Meseka, M. Fakorede, S. Ajala, B. Badu-Apraku, and A. Menkir. 2013. Introgression of alleles from maize landraces to improve drought tolerance in an adapted germplasm. Paper presented at the 37<sup>th</sup> Annual Conference of Genetic Society of Nigeria, 20 – 24 October 2013, Lafia, Nasarawa, Nigeria.
14. S. Meseka and J. Ishaaq. 2012. Combining ability analysis among Sudanese and IITA maize germplasm at Gezira research station. *Journal of Applied Biosciences* 57: 4198 - 4207.

15. Tony Ngalamu, **Silvestro Meseka**, and Mohammed Ashraf. 2012. Performance of soybean (*Glycine max* L. Merrill) genotypes under different planting dates in Sennar State of the Sudan. *Journal of Applied Bioscience*, 49: 3363 – 3370.
16. S.K. Meseka, A. Menkir, and S. Ajala. 2011. Genetic analysis of performance of maize inbred lines under drought stress. *Journal of Crop Improvement*, 25(5):521 – 539.
17. B.M.E. Abd Elrhman, E.S.Ali, **S.K. Meseka**, and A.E.H. Ibrahim. 2011. Associations of seed and forage yields with their components in introduced cowpea genotypes under Gezira conditions. *Sudan Journal of Agricultural Research*. 18:163-170.
18. Silvestro Meseka and Joseph Okidi. 2011. Plant Breeding and Formal Seed Sector, Seed Multiplication and Distribution Channels, In: *Seed System Security Assessment, Southern Sudan*, November 2010 – February 2011, pp: 39 – 79. FAO & et al., Publication.
19. S.K. Meseka and G.L. Tokporo. 2010. Maize production and breeding options for its pests and diseases control in South Sudan. *A paper presented in a workshop with theme “Special Support for Strengthening Plant Protection Department in Central Equatoria State”*, held on October 6 – 8, 2010 at Central Equatoria State Ministry of Agriculture, Juba, South Sudan.
20. B.M.E. Abd Elrhman, **S.K. Meseka**, E.S.Ali and A.E.H. Ibrahim. 2010. Genotype variability and stability in seed and forage yields of cowpea. *Gezira Journal of Agricultural Science* Vol. 8 (1): 76 – 86.
21. A.A.E. Elkhalf, E.S. Ali, **S.K. Meseka** and A.E.H. Ibrahim. 2010. Combining ability and heterosis in single crosses derived from some local maize (*Zea mays* L.) inbred lines. *Gezira Journal of Agricultural Science* Vol. 8 (1): 87 – 104.
22. S.K. Meseka, A. Menkir, and A.E.S. Ibrahim. 2009. Genetic analysis of performance of maize (*Zea mays* L.) inbred lines under managed drought stress. *Book of Abstracts, InterDrought-III Conference*, 11 – 16 October, 2009, Vivasha Resort Hotel, China.
23. Atungwu, J.J., S.O. Afolami, O.J. Ariyo and **S.K. Meseka**. 2009. Broad sense heritability and inheritance of resistance to *Meloidogyne incognita* in adapted cultivars of soybean. *International Journal of Nematology* 19:51 – 55.
24. S.K. Meseka, A. Menkir and A.E.S. Ibrahim. 2008. Yield potential and yield stability of maize hybrids selected for tolerance to drought and low N. *Journal of Applied Bioscience* 3:82 - 90.
25. S.K. Meseka, A. Menkir and A.E.S. Ibrahim. 2008. Yield stability of maize inbred lines with differential reactions to drought evaluated under stress and non-stress environments. *Gezira Journal of Agricultural Sciences, Sudan*. Vol. 6(2).182- 196.
26. S.K. Meseka and C.O. Oyiki. 2008. Perspectives on rural recovery and agricultural rehabilitation in post-conflict southern Sudan. *Journal of Applied Biosciences* Vol. 1 (1): 8-12.
27. S.K. Meseka, A. Menkir and A.E.S. Ibrahim. 2007. Yield performance and contribution of secondary traits to grain yield in maize hybrids under water stress and well-watered environments. *Journal of Natural Resources and Environmental Studies, Sudan* Vol. 4(1): 9 – 15.
28. C. Longley, I. Christoplos, T. Slaymaker and **S.K. Meseka**. 2007. Rural recovery in fragile states: Agricultural support in countries emerging from conflict. *Natural Resources Perspectives*. Overseas Development Institute, UK. 105.
29. S.K. Meseka and C.O. Oyiki. 2006. Potential of Upland rice for poverty alleviation and food security in post-conflict southern Sudan. *Proc. of Technical Workshop for Researchers in East and Southern African Countries*, 18 – 21 December 2006, African Institute for Capacity Development, Nairobi, Kenya.
30. S.K. Meseka, A. Menkir, A.E.S. Ibrahim and S. Ajala. 2006. Genetic analysis of performance of maize inbred lines selected for tolerance to drought under low soil nitrogen. *Maydica* 51: 487 – 495.
31. S.K. Meseka, A. Menkir, A.E.S. Ibrahim and S. Ajala. 2006. Response of maize hybrids developed for drought tolerance to low soil nitrogen. *Gezira Journal of Agricultural Sciences, Sudan* Vol. 4(1): 1 - 14.

32. A. Menkir, S. Ajala, A. Y. Kamara and **S.K. Meseka**. 2006. Progress in breeding tropical maize for adaptation to sub-optimal nitrogen at IITA. A paper presented at the 42<sup>nd</sup> Illinois Corn Breeder's School, held at Champaign, 6 - 7 March 2006, Illinois, USA.
33. S.K. Meseka, A. Menkir, and A.E.S. Ibrahim. 2005. Yield potential and yield stability of maize hybrids selected for drought tolerance. Book of Abstracts, 7<sup>th</sup> Africa Crop Science Conference, Hotel Lake Victoria, Entebbe, Uganda, December 5 – 9, 2005.
34. S.K. Meseka, A. Menkir, A.E.S. Ibrahim. 2005. Genetic analysis of drought tolerance in maize inbred lines. Proc. 5<sup>th</sup> West and Central Africa Regional Maize Conference, 3 – 6 May 2005, IITA-Cotonou, Benin Republic.
35. S.K. Meseka and A.M. Nour. 2004. Screening maize (*Zea mays* L.) genotypes for *Striga hermonthica* resistance. Proc. 7<sup>th</sup> Eastern and Southern Africa Regional Maize Conf. and Symp. on Low-Nitrogen and Drought Tolerance in Maize, 11 – 15 February 2002, CIMMYT/KARI, Nairobi, Kenya.
36. S.K. Meseka, A.E.S. Ibrahim and A.M. Nour. 2003. Yield potential of landraces of maize in Sudan and the avenues for their genetic improvement. Gezira Journal of Agricultural Sciences, Sudan. Vol.1 (1):63 - 73.
37. S.K. Meseka, A.E.S. Ibrahim and A.M. Nour. 2002. Diallel analysis for combining ability of grain yield and some yield components in maize. Journal of Natural Resources and Environmental Studies, Sudan. Vol. 3(1): 1 - 6.

## **B. Training Modules on Seed systems**

1. S. Meseka and S. Olakujo. 2013. Value for cultivation of maize use. Presented at a training workshop organized by the Institute of Agricultural Research and Training (IAR&T), 8 – 10 October 2013, Obafemi Awolowo University, Ile Ife, Nigeria.
2. S. Meseka and A. Menkir (2013). Variety development, production and maintenance of maize hybrids and parental inbred lines. Presented at a training course for seed technicians from emerging seed companies in Nigeria, held on 21 – 23 April 2013, IITA-Ibadan, Nigeria.
3. S. Meseka and S. Ajala (2013). Physiology of maize and its implication in quality seed production. Presented at a training course for seed technicians from emerging seed companies in Nigeria, held on 21 – 23 April 2013, IITA-Ibadan, Nigeria.
4. S.K. Meseka (2013). Principles of maize variety development and quality seed production. Presented at a training workshop organized by Maize Improvement Program (MIP), held on 17<sup>th</sup> April 2013 at IITA-Ibadan, Nigeria.
5. S.K. Meseka (2013). Hand pollination, inadequate placement of pollen grains on silks and its implication on quantity of seed. Presented at a training workshop organized by Maize Improvement Program (MIP), held on 17<sup>th</sup> April 2013 at IITA-Ibadan, Nigeria.
6. S. Meseka and S. Ajala (2012). Hybrid maize quality seed production and marketing. Presented in a workshop organized by IITA Youth Agri-entrepreneurs, held on 15<sup>th</sup> December 2012 at IITA-Ibadan, Nigeria.
7. S. Meseka (2012). Data collection on maize field trials. Presented in an In-house training workshop organized by Maize Improvement Unit for its staff, held on 19<sup>th</sup> April, 2012, IITA-Ibadan, Nigeria.
8. S. Meseka (2012). Principles of developing positive attitudes toward job. Presented in an In-house training workshop organized by Maize Improvement Unit for its staff, held on 19<sup>th</sup> April, 2012, IITA-Ibadan, Nigeria.
9. S. Meseka and A. Menkir (2011). Seed production of open pollinated maize varieties. Presented at "Seed production & Marketing" training workshop held 05 – 10 December 2011 at IITA-Ibadan, Nigeria.

10. S. Meseka (2011). Community-Based Seed Production Systems. Presented at “Seed production & Marketing” training workshop held 05 – 10 December 2011 at IITA-Ibadan, Nigeria.
11. S. Meseka (2011). Value for Cultivation and Use test for Variety Release. Presented at “Seed production & Marketing” training workshop held 05 – 10 December 2011 at IITA-Ibadan, Nigeria
12. S. Meseka (2011). Distinctness, Uniformity and Stability test for Variety Registration. Presented at “Seed production & Marketing” training workshop held 05 – 10 December 2011 at IITA-Ibadan, Nigeria.

### **C. Presentations & other technical reports**

1. S. Meseka and A. Menkir. 2015. IITA Maize Improvement Programme Collaborative Research with Partners: experiences in West and Central Africa. A paper presented at SARD-SC maize commodity stakeholders’ workshop, held on 18 – 20 March 2015, Nkolbisson, IITA-Yaoundé, Cameroon.
2. S. Meseka and A. Menkir. 2015. Possible strategies towards addressing the gaps and challenges to maize improvement in Cameroon. A paper presented at SARD-SC maize commodity stakeholders’ workshop, held on 18 – 20 March 2015, Nkolbisson, IITA-Yaoundé, Cameroon.
3. A. Menkir and S. Meseka. 2015. Progress in development multiple-stress tolerant maize for testing with partners in Ghana, Mali and Nigeria. A paper presented at the SARD-SC Maize Annual Review and planning Workshop held on 18 – 22 February 2015, Mensvic Grand Hotel, Accra, Ghana.
4. S. Meseka and A. Menkir. 2014. Advances in improvement of maize for aflatoxin resistance in West Africa. A paper presented at “AgResults Implementers Induction and Training Workshop, held on 18 - 19 June 2015, IITA-Ibadan, Ibadan, Nigeria.
5. S. Meseka. 2014. Maize agronomy for increasing productivity in West Africa. A paper presented at “AgResults Implementers Induction and Training Workshop, held on 18 - 19 June 2015, IITA-Ibadan, Ibadan, Nigeria..
6. S. Meseka. 2014. Maize value chains in West and Central Africa. A paper presented at IITA-DIFD partnership focused group meeting on Agricultural innovation and food security in South-West Nigeria, held on 16 – 17 October 2014, IITA-Ibadan, Ibadan, Nigeria.
7. S. Meseka. 2014. Effective communications in conducting and managing research. A paper presented at In-House Training organized by Maize Improvement Program (IITA), held on 17<sup>th</sup> April 2014, IITA-Ibadan, Nigeria.
8. S. Meseka. 2014. Unlocking the doors to youth unemployment in Africa. A paper presented in a training workshop organized for youth from Bayelsa State held from 19 – 27 February 2014 at IITA-Ibadan, Nigeria.
9. S. Meseka, A. Menkir, R. Bandyopadhyay, J. Augusto, and J. Atehnkeng. 2014. Breeding alfatoxin resistant maize germplasm with superior agronomic performance. Presented to Nestle on February 16, 2014 at IITA-Ibadan, Nigeria.
10. S. Meseka, A. Menkir. 2014. Performance evaluation of provitamin-A maize hybrids and OPVs in West Africa. Presented to Nestle on February 16, 2014 at IITA-Ibadan, Nigeria.
11. S. Meseka, A. Menkir and K. Dashiell (2012). IITA experiences in seed sector in West Africa. Paper presented in a workshop organized by West African Agricultural Productivity Program (WAAPP), held on 9<sup>th</sup> December, 2012 in Ouagadougou, Burkina Faso.
12. S. Meseka. 2012. Simple techniques of quality seed production of maize for smallholders. Paper presented in a technical training workshop organized by FASO AGRICULTURE ET INTRANTS Seed Company, held on 24 – 25 October, 2012, FAGRI SEEDS Head Office, Ouagadougou, Burkina Faso.



13. S. Meseka and A. Menkir (2012). Experiences in Seed Sector in West Africa Sub-region. Paper presented in a workshop organized by AGRA for guarantees in Sierra Leone, held on 11 – 14 March, 2012, Freetown, Sierra Leone.
14. S. Meseka and A. Menkir (2012). Experiences in dissemination of new maize hybrids to partners in West Africa. Paper presented in a workshop organized by AGRA for guarantees in Liberia, held on 8 – 10 March, 2012, Monrovia, Liberia.
15. S. Meseka and A. Menkir (2011). Progress in dissemination of new maize hybrids to partners in West Africa. Paper presented in a workshop organized by AGRA for guarantees in Nigeria, held on 26 – 28 September, 2011, Tahir Guest House Palace, Nigeria.
16. S.K. Meseka, J. Adam, B.C. Misaka, L. Atwok, M. Mogga, M.B. Elhussein and S.K. Binyason. 2010. Proposal for the release of two quality protein maize open pollinated varieties for utilization in Sudan, presented at the Ministry of Agriculture & Forestry, on May 31, 2010, Khartoum, Sudan.
17. S.K. Meseka, B.C. Misaka, and J. Adam. 2010. Yield performance of improved quality protein maize genotypes for poverty alleviation of subsistence farmers in Sudan. Paper presented at East and Central Africa Maize Working Group Meeting, 3 – 4 Feb. 2010, ILRI Campus, Addis Ababa, Ethiopia.
18. S.K. Meseka and J. Adam. 2010. Yield potential of improved maize hybrids for food security in the irrigated sector of Sudan. Paper presented at East and Central Africa Maize Working Group Meeting, 3 – 4 Feb. 2010, ILRI Campus, Addis Ababa, Ethiopia.
19. S.K. Meseka, B.C. Misaka, L. Atwok and J. Adam. 2009. Yield performance of improved quality protein maize genotypes for poverty alleviation of subsistence farmers in Sudan. Paper presented at East and Central Africa Maize Working Group Meeting, 3 – 5 Feb. 2009, Golden Tulip Hotel, Dar Es Salaam, Tanzania.
20. S.K. Meseka and J. Adam. 2009. Yield potential of improved maize hybrids for food security in the irrigated sector of Sudan. Paper presented at East and Central Africa Maize Working Group Meeting, 3 – 5 Feb. 2009, Golden Tulip Hotel, Dar Es Salaam, Tanzania.
21. S.K. Meseka, J. Adam, L. Atwok and M. Ladu. 2009. Yield performance of improved open pollinated maize genotypes for food security in Sudan. Paper presented at East and Central Africa Maize Working Group Meeting, 3 – 5 Feb. 2009, Golden Tulip Hotel, Dar Es Salaam, Tanzania.
22. Eltahir S. Ali, Abdelatif M. Nour, **Silvestro K. Meseka**, Osama, M. Elhassan and Siddig A. Mustaffa. 2009. Proposal for the release of three maize hybrids from PANAR Seed Company for utilization in Sudan, held on June 15, 2009, Khartoum, Sudan.
23. S.K. Meseka, B.C. Misaka and M.B. Elhussein. 2008. Yield performance of improved drought tolerant maize genotypes for poverty alleviation of subsistence farmers in Sudan. Paper presented at East and Central Africa Maize Working Group Meeting, 5 – 7 Feb. 2008, Equatorial Hotel, Kampala, Uganda.
24. S.K. Meseka, M. Kankolongo, L. Atwok and G. Asea. 2007. Technical Report on Travelling Workshop for Eastern and Central Africa Maize Research Programme, CIMMYT-Kenya.
25. S.K. Meseka and C.O. Oyiki. 2007. Food security situation in southern Sudan between 1985 and 2005. Paper presented at Drylands Coordination Group-Sudan Meeting, 18<sup>th</sup> April 2007, El-Sharika Hall, University of Khartoum, Sudan.
26. S.K. Meseka and C.O. Oyiki. 2007. Potential of maize for sustainable food security in southern Sudan. Paper presented at Annual ECAMAW Maize Workshop Group Meeting, 11 – 18 Feb. 2007, Jacaranda Hotel, Nairobi, Kenya.
27. J.G. Odra, **S.K. Meseka** and G.T. Louis. 2007. Potential of agricultural development and agribusiness in Mundri and Yei Conties in the post-conflict Southern Sudan.
28. S.K. Meseka and C.O. Oyiki. 2007. Potential of Rice production for sustainable food security in southern Sudan. Paper presented at Technical Training Workshop , 17 – 23 Decb. 2006, Jomo Kenyatta University of Agriculture and Technology, Nairobi, Kenya.

#### D. Posters

1. S. Meseka, A. Menkir, O. Bossey, and O. Azeez. 2015. Evaluation of advanced drought tolerant maize (*Zea mays* L.) hybrids for grain yield and other agronomic traits under combined drought and heat stress. Annual meeting, Crop Science Society of America, Minneapolis, MN, USA, Nov. 15 – 18, 2015.
2. W. Mengesha, A. Menkir, and S. Meseka. 2015. G x E interactions of pro-vitamin A rich synthetic maize varieties. R4D week, IITA-Ibadan, Nigeria, Nov. 23 – 27, 2015.
3. A. Fotso Kuate, R. Hanna, L. Kumar, P. Kulakow, P. Iluebbby, E. Parkes, A. Abbas, S. Meseka, and C. Suh. 2015. Cassava and Maize for agricultural investment and market development in Cameroon. R4D week, IITA-Ibadan, Nigeria, Nov. 23 – 27, 2015.
4. S. Meseka, A. Menkir, B. Badu-Apraku, M. Gedil, and T. Abdoulaye. 2014. Advances in breeding maize for drought tolerance in West Africa. IITA-Bukavu, DR Congo, 3 - 5 May 2014.
5. S.K. Meseka and A.M. Nour. 2004. Screening maize (*Zea mays* L.) genotypes for *Striga hermonthica* resistance. Proc. 7<sup>th</sup> Eastern and Southern Africa Regional Maize Conf. and Symp. on Low-Nitrogen and Drought Tolerance in Maize, 11 – 15 February 2002, CIMMYT/KARI, Nairobi, Kenya.

#### E. Thesis/ Dissertations

Genetic Analysis of Maize Inbred Lines for Tolerance to Drought and Low Soil Nitrogen , 2005. (PhD. Thesis). University of Gezira, Wad Medani, Sudan.

Diallel Analysis for Combining Ability of Grain Yield and Yield Components in Maize (*Zea mays* L.) Landraces, 2000. (MSc. Thesis). University of Gezira, Wad Medani, Sudan.

A Comparison of Growth and Development of Local Varieties of Sorghum [*Sorghum bicolor* (L.) Moench] Under Soil Drying Cycles, 1996. (BSc. Dissertation). University of Juba, Khartoum, Sudan.

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