

# CURRICULUM VITAE

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## **ACADEMIC QUALIFICATIONS:**

PhD - Meteorology (Univ. of Nairobi), 1977  
Certificate- Environmental Science, Harvard University School of Public Health 1976  
M.Sc. - Meteorology (New York Univ.), 1971  
B.Sc. - Physics and Mathematics (Geneva College), 1967

## **CURRENT EMPLOYMENT**

**University of Nairobi, Department of Meteorology.**

**Head:** Physical and Environmental Meteorology.

## **PROFESSIONAL STATUS.**

- Consultant in environmental management.
- Registered by National Environment Management Authority (NEMA) as Lead Expert-Environmental Impact Assessment and Environmental Audit

## **AREAS OF PROFESSIONAL ACTIVITIES**

- Environment research and management technologies including environment impacts assessment methodologies.
- Climate change impacts assessment, adaptation and mitigation strategies.
- Environmental disasters management.
- Capacity building in environment management

## **RELEVANT EXPERTISE IN THE AREA OF ENVIRONMENT:**

- 1975-1976: I attended a one- year training and research program on environment at Harvard School of Public Health. Training courses focused on environmental management technologies and included: Climatology and chemistry of air pollution; effects of air pollution on the

environment especially on community health, and air pollution sources inventory and control techniques.

- My research towards PhD degree was on Meteorological Aspects of Urban Air Pollution.
- 1994: I was a member of the Task Force on National Environment Impacts Assessment Guidelines-- Industry Sector.
- 1990-1996: I coordinated a regional project that focused on agricultural activities and environmental conservation in semi-arid areas of Kenya. (Traditional Techniques of Microclimate Improvement).
- 1996-1998: I coordinated national capacity building activities of a GEF/UNDP regional project on climate change that focused on impacts, adaptation and mitigation strategies. .

#### **MAIN TEACHING RESPONSIBILITIES:**

Micrometeorology, Atmospheric Pollution, General Climatology, Urban Climatology and Climate Change.

#### **RESEARCH TRAINING EXPERIENCE**

- Have supervised 35 MSc. and PhD research projects in the areas of Meteorology and Environment.
- Have examined and been a member of board of examiners of over 40 Msc. and Phd. theses
- External Examiner- Moi University, School of Environmental Studies, **1993 - 1995**.

#### **UNIVERSITY ADMINISTRATION**

**1980-1987:** I was chairman of the Department of Meteorology and member of the University Senate.

#### **CONSULTANCY ACTIVITIES**

##### **February-May 1989:**

I was a consultant for **Pan African Union for science and Technology (PUST)**.

##### **Terms of reference:**

To undertake an inventory of Scientific Societies and Research Institutions within the Eastern African Region.

##### **Outcome:**

A report was completed and submitted to **PUST** in June 1989.

##### **February-March 1993:**

I was one of the consultants for **NUFFIC-The Netherlands Organization for International Cooperation in Higher Education**.

##### **Terms of reference:**

To undertake an External Evaluation of the Dutch Government funded Capacity Building Program at Moi University, School of Environmental Studies.

##### **Outcome:**

An evaluation report covering the previous 5 year period was completed and forwarded to **NUFFIC** in April 1993

**January-February 1998:**

I undertook a similar consultancy for **NUFFIC** as the one in 1993 under similar terms of reference.

**Outcome:**

An evaluation report covering the previous 5 years was completed and submitted to **NUFFIC** in April 1998

**August-December, 2001:** I was one of national Consultants contracted by **WMO****Terms of reference:**

To develop strategies for factoring weather and climate information into disaster management policies in Kenya.

I was the lead consultant for natural resources, human settlement, health and public safety sectors.

**Outcome:**

A report on the strategies was completed in December and submitted to **WMO/UNDP**

**August, 2001-March, 2002:** I was one of 3 **USAID/FEWS-NET** Consultants**Terms of reference:**

To develop Strategic Plan for Drought Monitoring Center, Nairobi.

**Specific Terms of Reference:**

- To conduct a review of key technical issues that must be addressed in the strategic plan.
- To conduct a survey of producers and users of climate information concerning their views of the strategic plan.
- To hold discussions at the IGAD Secretariat to obtain views on the strategic plan.
- To prepare a draft report of the plan for discussion by the stakeholders.
- To facilitate in a meeting of stakeholders to discuss the strategic plan
- To prepare a final strategic plan document.

**Outcome:**

The 6 year strategic plan was completed in March and the Center adopted as a specialized institution of the **IGAD** in the year 2002. The name of the Centre was changed to **IGAD Climate Prediction and Applications Centre (ICPAC)**

**October 2002- January 2003: WMO Expert.****Terms of reference:**

To provide scientific and technical advice during the development of strategic plan for **SADC-DMC-Harare**.

**Specific Terms of Reference**

- To work with a team of consultants in the identification and analysis of key scientific and technical issues that needed to be addressed in the strategic plan.
- To visit DMC Nairobi, Harare and some representative SADC countries including SADC Headquarters to obtain their views of the Strategic Plan.
- To facilitate in a meeting of DMC stakeholders where the report would be discussed and approved..
- To provide technical support in the preparation of the Strategic Plan.

**Outcome:**

The 10 year strategic plan was completed in December 2002 and adopted in January 2003.

**February-April 2003:** I was one of 2 consultants contracted by **The Netherlands Red Cross Society (NRCS)**.

**Terms of reference:**

- To prepare a report on expected climate changes in Ethiopia, its potential impacts, vulnerability and adaptation strategies towards disaster preparedness and to identify key stake holders and the feasibility of incorporating climate change issues within the disaster preparedness program of the Ethiopian Red Cross Society (ERCS).
- To develop a project proposal on climate change adaptation for disaster preparedness in the South Omo Zone of Ethiopia for implementation by the Ethiopian Red Cross Society.

**Specific Terms of Reference:**

- To conduct a literature review of climate trends in Ethiopia.
- To identify and conduct interviews with key institutions in Ethiopia which are involved with disaster management.
- To make a field visit to South Omo Zone for assessment of conditions existing there in.
- To prepare a report of the climate change in Ethiopia, its potential impacts, vulnerability and adaptation options towards disaster preparedness.
- To develop a pilot project proposal on climate change adaptation for disaster preparedness in the South Omo Zone of Ethiopia for implementation by the Ethiopian Red Cross Society

**Outcomes:**

- A report on climate change and disaster preparedness in Ethiopia was completed and submitted to **NRCS** in April 2003.
- The project proposal was completed and submitted to **NRCS** in April 2003.

**April 2007:**

**I was contracted by GTZ FOR 22 working days.**

**Terms of Reference:**

- To conduct an assessment of Clean Development Mechanism activities in Kenya.
- To prepare a report containing recommendations on how CDM can be increased in the country.

**Outcome:**

**The report was completed and submitted to GTZ At the end of April 2007.**

**May 2007- June 2008:** I was one of the consultants contracted by the **UNDP- Poverty and Environment Initiative ( PEI ). And the Ministry of Environment and Mineral Resources.**

**Terms of Reference:**

To provide technical support to the development of the National Environment Policy for Kenya. I was responsible for Climate Change and Disaster Management.

**Specific Terms of Reference**

- To prepare an initial report on Preliminary Analysis of Key Policy Issues.
- To facilitate in the meetings of Policy Development Task Forces.
- To facilitate in the meetings of National Stakeholders.

- To facilitate in the Regional Consultative Meetings.
- To prepare reports of the meetings.
- To prepare the Interim Final Draft Policy Documents

**Outcome:**

The Final Draft Policy Document was submitted to the Government in June 2008.

**May 2007- November 2008:** I was one of the consultants contracted by the Ministry of Development of Northern Region and Other Arid Lands.

**Terms of Reference:**

To develop a training program and conduct training in Natural Resources Management for the **Arid and Semi-Arid Lands (ASALs) District Steering Groups (DSGs)**. The program covered 28 districts. I was responsible for droughts and desertification management, Climate change and disaster risk reduction.

**Specific Terms of Reference:**

- To conduct training needs assessment
- To prepare the training program and materials.
- To conduct pilot training for the purpose of evaluation.
- To implement full training program for the District Steering Groups.
- To prepare reports on the training program.
- To prepare a final report that included recommendations for the way forward.

**Outcome:**

The training program was successfully concluded in November 2008.

**February 2010: I was contracted by GTZ for 5 days.**

**Terms of reference:**

To prepare Kenya's Country Position Paper on the Status of Climate Change Activities.

**Outcome:**

The Country Paper was finalized and presented at the Workshop on the Status of Climate Change Activities in the Nile Basin Countries, Entebbe, Uganda. 08-09 2010.

## **EXPERIENCE IN PROJECT PLANNING AND COORDINATION**

**1990-1996:**

I was National Coordinator of the Dutch Government funded regional project titled: **Traditional Techniques of Micro-climate Improvement (TTMI)** which was being implemented by University of Nairobi. The project's main objective was building national capacity by research training focusing on improvement of agricultural environment in semi-arid areas putting special emphasis on traditional techniques.

The participating countries were: **Kenya, Nigeria, Sudan and Tanzania**. My responsibilities included planning of project activities in Kenya, developing MSc and PhD projects and supervising them.

### **The main achievements of the project in Kenya.**

- Awareness of farmers in the semi-arid areas of Kenya notably Machakos and Laikipia was enhanced on management of agricultural lands under variable climate conditions.
- Two staff members of University of Nairobi and one senior staff of Kenya Agricultural Research Institute obtained their PhD degrees under the project including three Msc. degrees obtained by supporting post-graduate students .
- An up-to-date laboratory with equipment for field research was established at the University of Nairobi.
- A number of papers with the PhD candidates as lead authors have been published in international journals.

### **1996-1998:**

I was employed by UNDP as the national coordinator of the GEF funded UNDP regional project entitled:

**Building Capacity in Sub-Sahara Africa to Respond to the United Nations Framework Convention on Climate Change (UNFCCC).** The project's objective was to enhance the technical and institutional capacity to fulfill the country's commitments under the convention. The participating countries were: **Ghana, Kenya, Mali and Zimbabwe.** My responsibilities included planning and coordination of project activities in Kenya.

### **The main achievements of the project in Kenya.**

- National experts from various disciplines were trained in undertaking various technical studies as specified by UNFCCC.
- Inventories of greenhouse gas sources and sinks in the important sectors were undertaken.
- Climate change mitigation options were identified and addressed.
- Climate change impacts and vulnerability indicators were identified and adaptation strategies analyzed.
- The capacity was enhanced within the UNFCCC Focal Point Ministry to implement climate change activities as required under the convention.
- The **First National Communication to the Conference of the Parties** was prepared using the results obtained from the project's technical studies.

## **OTHER PROFESSIONAL ACTIVITIES**

- **1998-2001:** I was one of the lead authors of **Chapter 5 of the Third Assessment Report (TAR) of the Inter-Governmental Panel on Climate Change (IPCC) Working Group 1, (science of climate change)**
- I am a member of the **National Climate Change Activities Coordinating Committee (NCCACC)**
- I have participated in numerous national and international meetings, conferences and workshops especially in relation to environmental impact assessment, capacity building, disaster management and climate change technical activities.
- I am a member and chairman of the **National Review Panel** for the **Global Environment Facility (GEF )** Country project proposals which are submitted to GEF for funding.
- 2003-2005: I was a member of the **World Meteorological Organization, Expert Team (ET 3.9) on Training in Urban Climatology.** In that capacity and at the request of the group

during its meeting in Geneva in June 2005, I formulated and submitted a proposal for training in Urban Climatology for the African Region.

- **2004- 2007: I was A Lead Author of the IPCC-- Working Group 1, Climate Change-- The Physical Science Basis, Fourth Assessment Report, (Chapter 2)**
- **2007-present:** I am the lead expert and chairman of the Technical Working Group on Climate Change Mitigation- National Communication to the UNFCCC.
- **2007- 2008:** I was a reviewer of the 2006-2007 National State of Environment Report whose theme is Climate Change and Coping Mechanisms. National Environment Management Authority.
- **2006-present:** I am an Associate Consultant with Professional Training Consultants- Environment Group, Nairobi.
- **2009-Present:** I am a member of the Advisory Committee on formulation of National Climate Change Response Strategy for Kenya.
- **2009-Present:** I am a member of the Climate Change Working Group on Nile Basin Initiative.
- **2010-** I am the Group Leader of consultants contracted by National Environment Management Authority (NEMA) to undertake the Country's Technology Needs Assessment for climate change under United Nations Framework Convention on Climate Change (UNFCCC)

#### **MEMBERSHIP OF LEARNED SOCIETIES**

- **Member:** Kenya National Academy of Sciences
- **Member:** Specialist Committee on Physical Sciences - Kenya National Academy of Sciences
- **Member:** Editorial Board, Kenya Journal of Science and Technology
- **Member :** Kenya Meteorological Society

#### **SCIENTIFIC HONORS AND AWARDS**

- **2007:** Awarded **Certificate of Credit** by the Intergovernmental Panel on Climate Change (IPCC) for my contribution to the award of **2007 NOBEL PEACE PRIZE to the IPCC.**
- **2007:** Presented with a letter of recognition by the Advisory Committee of the National Science Foundation –USA for my contribution, as a Lead Author, to the work of the IPCC Working Group 1 (Climate Change, Physical Science Basis 1998-2007).
- **2006:** Awarded, together with S.B.B. Oteng'i and H.P. Liniger, **Certificate of First Honorary Mention by International Society for Agricultural Meteorology**, for “Demonstrating Best Examples of Agro-meteorological Services”.

#### **LIST OF PUBLICATIONS IN SCIENTIFIC JOURNALS, PROCEEDING OF INTERNATIONAL CONFERENCES AND RESEARCH REPORTS**

Nganga, J.K., 1976: Meteorological Aspects of Air Pollution Study in Nairobi. PhD Thesis, University of Nairobi, 1976, 187 pp.

Nganga, J.K., 1979: Meteorological Aspects of Air Pollution, Kenya Post, Vol. 4: No. 1 pp. 19 - 23.

Patnaik, J.K., Kiangi, P.M.R., and Nganga, J. K., 1979: Some Aspects of Seasonal Features of the Southern hemisphere Subtropical Jet-stream. Research Report No. 1/79 Institute of

Meteorological Training and Research. Kenya Meteorological Department, 1979, 9 pp.

- Nganga, J.K., 1980: Climatological Aspects of Air Pollution Dispersion in Nairobi. Research Report No. 5/80. Institute for Meteorological Training and Research. Kenya Meteorological Department, 1980, 26 pp.
- Nganga, J.K. 1980: Some Aspects of Frequency and Stability Wind Roses in a Tropical Region. Journal of Air and Water Pollution. Vol. 1: No. 13 pp. 35 - 41.
- Nganga, J. K., 1980: A Model for Estimating Carbon Monoxide Emitted by Motor Vehicles in Nairobi. Kenya Journal of Science and Technology, Series A, Vol. 1: pp. 35 - 41.
- Patnaik, J.K., Nganga, J. K. and Kiangi, P. M. R., 1980: Atmospheric Pollution Potentials Over Africa, Kenya Journal of Science and Technology, Series A, Vol. 1: pp. 43 - 52.
- Pattnaik, J.K., Nganga, J.K. and Kiangi, P.M.R., 1980: Mixing heights and Pollution Potentials over Africa. Research Report No.1/80 Institute for Meteorological Training and Research. Kenya Meteorological Department, 1980, 19 pp.
- Nganga, J.K., 1981: On the Frequency and Stability Wind Roses in a Tropical Region. Journal of Air, Water and Soil Pollution, Vol. 16: pp. 385 - 386.
- Patnaik, J. K., Nganga, J.K. and Kiangi, P.M.R., 1984: Changes of Electrical Potentials and Associated Atmospheric Parameters near the Earth's Surface During Solar Eclipse. Kenya Journal of Science and Technology Series A, Vol. 4: pp. 65 - 76.
- Nganga, J.K., and Masumba, B.A.N., 1984: The Land and Sea Breeze Circulation over the Coastal Areas of Kenya. Proceedings of WMO Regional Conference on GATE/WAMEX and Tropical Meteorological of Africa, Dakar Senegal, December 10 - 14, pp. 220 - 222.
- Patnaik, J.K., Kiangi, P.M.R. and Nganga, J.K. 1984: The Three Dimensional Temperature Field over Africa; Ibid., pp. 166 - 171.
- Nganga, J. K. 1984: Observation of trade Wind Inversions during a Dry Period. Ibid. pp. 255 - 256.
- Nganga, J. K. 1984: Acid Rain in Kenya. Kenya Post Vol. 9: pp. 7-8.
- Nganga, J. K. and Ngugi, G. K., 1985: Measurement of Aitken Nuclei in Nairobi. Proceedings of the First International Conference on Atmospheric Science and Application to Air Quality. Seoul, Korea. 20-24, May 1985, pp.7.
- Nganga, J. K. 1986: Meteorological Aspects of Urban Planning with Special application to Air Pollution. Symposium on Urban Climatology in Tropical Countries, Nairobi, Kenya. 14-17, April 1986.



- Nganga, J. K., and Ngugi, G. K. 1986: Some Features of Aitken Nuclei in Nairobi, Atmospheric Environment Vol. 20: No. 4, pp. 793 - 796.
- Nganga, J. K., 1986: Meteorological Aspects of Gaussian Diffusion Modeling in Tropical Areas (A case study). Proceedings of WMO Conference on Air Pollution Modeling and its Application, Leningrad, USSR. 19 - 24 May, 1986. WMO, Environmental Pollution Monitoring Program: Technical Document WMO/TD No. 198, pp. 249 - 264.
- Nganga, J. K., and Ngugi, G. K., 1986: The influence of weather on measles and pneumonia in Nairobi. Proceedings of the WMO/WHO/UNEP symposium on climate and human health, Leningrad USSR, 22-26 September, 1986, special world climate program, applications WCAP-No.1 pp. 38-41.
- Nganga, J.K., and Ngugi, G. K, 1986: Indices of comfort in some Towns in Kenya, *Ibid.* pp. 190-199.
- Nganga, J. K. 1987: Meteorological Application to air pollution research in tropical regions. An invited paper. Proceedings of the First Technical Conference for Meteorological Research in Eastern and Southern Africa, Nairobi, Kenya, 6-9 January 1987, pp. 283-286.
- Okumu, A. M. Das, P. K. and Nganga, J. K., 1987: Some aspects of Somali current. *Ibid.* pp. 22-126.
- Nganga, J. K., 1987: Influence of Tropical storms of West Indian Ocean on rainfall in East Africa. Workshop on Dynamics of Tropical storms; Visakhapatnam, India, 22-28, March 1987.
- Nganga, J. K., 1989: Some aspects of rain water Chemistry Programme in Kenya. Proceedings of WMO Technical Conference on Changing Composition of the atmosphere. Sofia, Bulgaria 23-27 October, 1989. Published in WMO special Environmental Report No. 17 (WMO No. 724) pp. 42-46.
- Nganga, J. K., 1990: Sources of Greenhouse Gases in Africa. International Conference on Global warming and Climate Change; Africa perspective, Nairobi, 2-4, May, 1990.
- Nganga, J. K., 1990: Carbon dioxide emissions from Industrial and Commercial activities in Kenya; Implication for Greenhouse Warming. Invited Paper, Second Technical Conference on Research in Eastern and Southern Africa, 3-7 September, 1990.
- Nganga, J.K., 1990: Air pollution problem in African cities. African Urban Quarterly. Vol 5: No. 1, pp. 30-33.
- Nganga, J.K., 1992: Meteorology, climate change and sea level rise of the Coastal Region of Kenya. International Workshop on Urban and Regional Planning of Mombasa and the Coastal Region Kenya, 18-21, May, 1992.

- Nganga, J. K., 1992: The climate and meteorology of Nairobi Region, Kenya. African Urban quarterly, Vol. 7 No 1 and 2 pp. 6-23.
- Gatebe, C.K., J.K. Nganga, A.M. Kinyua, and M.S. Rao. 1994: A simple diffusion model for calculating concentrations from line sources in Nairobi. International Journal of Biochemiphysics, Vol. 3 No. 1 pp. 16-27.
- Nganga, J. K., 1993: Environmental degradation processes and their Impact on the natural environmental conditions. Invited paper, First International Conference of African Meteorological Society Nairobi, Kenya. 8-12, February, 1993.
- Gatebe, C.K., J.K. Nganga, A.M. Kinyua and M.S. Rao, 1994: Some aspects of air pollution research development in Kenya. An invited paper, Second National Workshop on Meteorological Research Applications and Services. Nairobi, 5-9 December, 1994.
- Opijah, F.J. and J.K. Nganga 1995: Mathematical Modeling of the development of convective planetary boundary layer in Nairobi. Journal of African Meteorological Society Vol. 2 No. 1 pp. 1-18.
- Kanonya, E. M. and J. K. Nganga, 1995: Towards the development of an optimum stability index for forecasting convective weather. Journal of African Meteorological Society. Vol. 2 No. 1 pp. 35-46.
- Nganga, J. K. 1995: Capacity Building for Joint Implementation. Workshop on the Practical and Political Constraints to the Acceptability of Joint Implementation under the United Nation Framework Convention on Climate Change. Nairobi, 8th June, 1995. Final report pp. 9-10.
- Nganga, J.K., 1995: Anthropogenic sources of Greenhouse gases. Awareness Workshop on Climate Change, Naivasha 19-21, Dec. 1995.
- Mungai D. N., C. J. Stigter, J.K. Nganga and C. L. Coulson 1996: A new approach in research education to solve problems of dry land farming in Africa. Arid soil Research and Rehabilitation. Vol. 10 pp. 169-177.
- Nganga, J. K., 1996: Impacts of air pollution on the Environment. Invited Paper, 3rd Kenya Meteorological Society Workshop on Meteorological Research and Applications, Mombasa, Kenya 7-11 October 1996.
- Ong. C. K., J.M. Kinama, R. Chiti, F. Gichuki, C.J. Stigter and J.K. Nganga 1996: Agroforestry for soil and water conservation in dry-lands. In J.O. Muga. (Ed.) People and Institutional Participation in Agro-forestry for sustainable development pp. 297-308.
- Nganga, J.K. 1998: Meteorology of air pollution, Invited Paper, proceedings of the Kenya Meteorological Society Workshop on challenges of Meteorology in Sustainable Industrial Development, Mombasa, Kenya 7-11 Sept 1998 pp. 396-400.

- Stigter, C.J., W. van den Bor, J.R.V. Daane, H.S. Adam, A.E. Mohammed, J.K. Nganga and D.N. Mungai, 1998: The picnic model for research training at African Universities; evaluation and comparison. *Journal of Agricultural Education and Extension*, Vol. 5 no.1., pp 23-38.
- Mungai, D.N., C.J. Stigter, C.L. Coulson and J.K. Nganga 2000: Simply obtained global radiation soil temperature and soil moisture in an alley cropping system in Semi-Arid Kenya. *Theoretical and applied climatology*. Vol. 65 pp. 63-78.
- Otengi S.B.B., C.J. Stigter, J.K. Nganga and D.N. Mungai 2000: Wind protection in a hedged Agro-forestry system in Semi arid Kenya; *Agroforestry systems* Vol. 50 No. 2 pp. 137-156.
- Stigter C.J. and J.K. Nganga 2000: Traditional Techniques of Microclimate Improvement, African Network (TTMI/AN), Project for Research Training. Successful Research Partnership case study for GFAR2000. *Global Forum on Agricultural Research* 8 pp.
- Nganga J.K. 2000: Air Pollution and human health. Invited Paper. Proceedings of the 5th Kenya Meteorological Society Workshop on the Role of Meteorology in Health and Public Safety. Mombasa, 4-8 Sept. 2000. (In press).
- Nganga J.K. 2000: Trend of carbon dioxide emissions from fossil fuels and cement production in Kenya. *Discovery and Innovation*, Vol. 12, pp 111-117.
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- Mungai D.N., C.J. Stigter, C.L. Coulson, J.K. Nganga, G.W.S. Netondo and G.O. Omayya 2001: Understanding yields in alley cropping maize (*Zea Mays L*) and *Cassia Siamea (Lan)* under Semi-Arid Conditions in Machakos, Eastern Kenya, *Journal of Environmental Sciences*, Vol. 13, pp 291-298.
- Nganga J.K. 2001: A case for establishing climate observation systems in the growing urban areas in Eastern and Southern African Region. Presented at the Workshop on Global Climate Observing Systems( GCOS ) in Eastern and Southern Africa Region. Kisumu Kenya, 3-5, August 2001.
- Penner, J.E., M.O. Andreae, H. Annegan, L. A. Barrie, J. Feitcher, D.A. Hegg, A. Jayaraman, W.R. Leaitch, D. M. Murphy, J. Nganga, and G. Pitari, 2001: Aerosols, Their direct and indirect effects. In: *Climate Change 2001: The scientific Basis. Contribution of Working Group I to the Third Assessment Report of the Intergovernmental Panel on Climate Change* [J.T. Houghton, Y. Ding, D.J. Griggs, M. Noguer, P.J. Van der Linden, X.Dai, K.Maskell, and C.A. Johnson (eds.)].Cambridge University Press, Cambridge, U.K., PP.289-348.

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- Nganga, J.K. 2003: National inventories of greenhouse gas sources and sinks. Workshop on Capacity Building for Clean Development Mechanism (CDM), Kilifi- Kenya, 14-16 May 2003.
- Nganga, J.K. 2003: Use of weather and climate information in the management of air pollution for sustainable development. Workshop on the Development of Strategies for Sector Specific Applications of Weather and Climate Information and Products for Sustainable Development, Kisumu- Kenya, 22-25 September 2003.
- Mureithi, W.W., J.M. Muthama and J.K. Nganga, 2003: Regional and seasonal characteristics of aerosols distribution over Equatorial African Region. 5<sup>th</sup> Workshop on Meteorological Research, Applications and Services, Mombasa-Kenya, 29 September- 3 October 2003.
- Nganga, J.K., 2003: The role of weather and climate information in mitigation of air pollution related disasters. **Ibid.**
- Nganga, J.K., 2003: Vulnerability of the society in Kenya to man-made disasters and potential adaptation and mitigation strategies to minimize such impacts. Workshop on Enhancing National Strategies in Addressing the Specific Challenges of the Rapid Onset and Slow Onset Disasters, Kisumu, Kenya, 17-18 Dec. 2003.
- Opijah, J.O. J.R. Mukabana, and J.K. Nganga, 2005: Simulation of the influence of surface heterogeneity on air flow and convection over Nairobi area: Implication on air quality in the city. Journal of the African Meteorological Society, Vol. 6 No.1 pp. 25-35.
- Kinama, J.M., C.J. Stigter, C.K. Ong, J.K. Nganga and F.N. Gichuki, 2005: Evaporation from soils below sparse crops in contour hedgerow agro-forestry in semi-arid Kenya. Agricultural and Forest Meteorology, Vol. 130, pp. 149-162.
- Nganga, J.K., 2006: Desertification and environmental management. Proceedings of the Kenya National Academy of Sciences, National Symposium on Science, Technology, Innovation and Society; The African Perspectives and Experiences, Nairobi, Kenya. 29-30, June, 2006.
- Nganga, J.K., 2006: Climate change impacts, vulnerability and adaptation assessment in East Africa. Proceedings of the United Nations Framework Convention on Climate Change, African Regional Workshop on Adaptation, Accra, Ghana, 21-23, September, 2006
- Nganga, J.K. 2007: Impacts of Climate on wildlife and tourism. Proceedings of the Eighth Kenya Meteorological Society Workshop on Meteorological Research, Applications and Services; Mombasa, Kenya 11-14 Sept. 2007.
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- Nganga, J.K. 2010: Status of climate change activities in Kenya. *Proceedings of the Regional Workshop on the Status of Climate Change Activities in the Nile Basin Countries-Entebbe, Uganda, 8-9 February 2010*.