

CURRICULUM VITAE

PERSONAL DETAILS

NAME	DAVID NGUATHA MUNGAI
NATIONALITY	Kenyan
DATE OF BIRTH	16 November 1950
PRESENT APPOINTMENT	Associate Professor
ADDRESS (OFFICE)	Wangari Maathai Institute for Peace and Environmental Studies, University of Nairobi, P.O. Box 30197 - 00100, Nairobi, Kenya Tel: +254 20 2506448, Mobile +254 714 745 481 Mobie +254 (0) 714 745 481 E-mail: mungaidavid@uonbi.ac.ke Alternate email: dn_mungai@yahoo.co.uk
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A: ACADEMIC QUALIFICATIONS

1. Ph.D. (Agro-forestry Meteorology - University of Nairobi, 1993)
2. M.A. (Climatology – University of Nairobi, 1984)
3. B.A. (Geography – University of Nairobi, 1976)

B: PROFESSIONAL EXPERIENCE

1. Deputy Director, Wangari Maathai Institute for Peace and Environmental Studies
2. Development, review and implementation of University curriculum
3. Coordinator, Education for Sustainable Development in Africa (Sustainable Urban Development) Programme
4. Current Chairman, Environmental Management Technical Committee, Kenya Bureau of Standards (2013-). The Committees mandate involves development, establishment and publication of environmental management standards.
5. Development, review and implementation of environmental policy for a number of organizations including the University of Nairobi
6. Environmental assessment for a wide range of industrial sectors in Kenya and other African countries
7. Registered Lead EIA/EA Expert – Reg. No. 0117
8. Member, DFID’s Pathways to Environmental Action in Kenya (PEAK) Advisory Committee (2004-2006)
9. Visiting Research Scientist, Kenya National Cleaner Production Centre (2003-2007)
10. Chairman, NEMA Taskforces on Regulations, Guidelines and Environmental Standards (2003-2004)
11. Chairman, Technical Advisory Committee on Environmental Impact Assessment at the National Environment Management Authority (NEMA) (2002-2004)
12. Visiting Research Scientist, International Center for Research in Agro-forestry (ICRAF) (2001-2002)
13. Visiting Research Scientist, International Center for Research in Agro-forestry (ICRAF) (1998)
14. Visiting Research Scientist, CSIRO, Division of Plant Industry (Perth Laboratories), in Western Australia. (March - September 1997)
15. Agricultural Research Officer, Kenya Soil Survey (1977-1985)

C: MEMBERSHIP OF PROFESSIONAL BODIES/NETWORKS

1. Habitat Partner Universities Initiative (HPUI)
2. Global Universities Partnership on Environment and Sustainability (GUPES)
3. Education for Sustainable Development in Africa (ESDA) Consortium

D: RESEARCH INTERESTS

Urban Environmental Management, Climate science and planning for climate change, Eco-hydrology, Integrated Watershed Management, Environmental Assessment Tools and Methodologies, Environmental Policy, Sustainable Consumption & Production, Environmental Measurement

E: RESEARCH THESIS SUPERVISION AND EXAMINATION

1. Ph.D. Research Supervision

From 2006 to 2013, I have supervised 4 PhD students in the Department of Geography and Environmental Studies. The theses' focal subjects are: (a) sustainability of rural energy sources; (b) food security; (c) land use change and soil productivity decline; and (d) impacts of wetland utilization. Currently supervising one PhD student at the WMI in environmental governance

2. Masters' Research Supervision

I have supervised more than ten Masters' theses and project reports in the last ten years

3. Research Theses Examination

I have examined more than nineteen Masters and PhD theses from different universities in Kenya and abroad

F: PUBLICATIONS

F1: Papers in peer-reviewed journals

1. D.N. Mungai and S.O. Owuor, 2011. Urbanization, water and ecosystems: The Case of Nairobi, In: C. Mafuta, R.K. Formo and C. Nelleman, Green Hills, Blue Cities: An Ecosystems Approach to Water Resources Management for African Cities. A Rapid Response Assessment. United Nations Environment Programme, GRID-Arendal.
2. D.N. Mungai, C.K. Ong, B. Kiteme, W. Elkaduwa and R. Sakthivadivel 2004. Lessons from two long-term hydrological studies in Kenya and Sri Lanka. *Agriculture Ecosystems and Environment* 104: 135-143
3. D.N. Mungai, C.L. Coulson, C.J. Stigter, J.K. Ng'ang'a and D.N. Mugendi, 2001. Phenotypic nutrient up-take differences in an alley cropping system in semi-arid Machakos, Kenya. *Journal of Environmental Science* 13: 164 – 169
4. D.N. Mungai, C.J. Stigter, C.L. Coulson, J.K. Ng'ang'a, G.W.S. Netondo and G.O. Umayya 2001. Understanding yields in alley cropping maize (*Zea Mays L.*) and *Cassia siamea (Lam.)* under semi-arid conditions in Machakos, Eastern Kenya. *Journal of Environmental Science* 13: 291 – 298

5. D.N. Mungai, B. Kiteme and C.K. Ong, 2000. Reflections on the Upper Ewaso Ng'iro River Basin Studies in Kenya In: *T.P. Tomich, D.E. Thomas, and M. van Noordwijk (Eds.), Research abstracts and Key Policy Questions – Methodology Workshop on Environmental Services and Land Use Change: Bridging the Gap between Policy and Research in Southeast Asia. ASB Report No. 10, Bogor, Indonesia, p. 103-106*
6. D.N. Mungai, C.J. Stigter, C.L. Coulson and J.K. Ng'ang'a, 2000. Simply obtained global radiation, soil temperature and soil moisture in an alley cropping system in semi-arid Kenya. *Theoretical and Applied Climatology 65: 63 – 78*
7. S.B.B. Oteng'i, C.J. Stigter, J.K. Ng'ang'a and D.N. Mungai, 2000. Wind protection in a hedged agroforestry system in semi-arid Kenya. *Agroforestry Systems 50: 137 - 156.*
8. C.J. Stigter, W. Van den Bor, J.R.V. Daane, H.S. Adam, A.E. Mohammed, J.K. Ng'ang'a and D.N. Mungai, 1998. The "picnic" model for research training at African Universities: evaluation and preliminary comparison. *Journal of Agricultural Education and Extension 5: 23-38.*
9. D.N. Mungai, C.J. Stigter, C.L. Coulson, W.K. Ng'etich, M.M. Muniafu and R.M.R. Kainkwa, 1997. Measuring solar radiation transmission in tropical agriculture using tube solarimeters: A warning. *Agricultural and Forest Meteorology 86: 235-243*
10. D.N. Mungai, C.J. Stigter, J.K. Ng'ang'a and C.L. Coulson, 1996. New approach in research education to solve problems of dry land farming in Africa. *Arid Soil Research and Rehabilitation 10: 169-177*
11. D.N. Mungai and C.J. Stigter, 1995. The use of weather and climate information in planning and management of food security and production in Africa under conditions of increasing climate variability. *Journal of the African Meteorological Society (SMA) 2: 98-104.*
12. D.N. Mungai, 1994. Application of the Principal Components Analysis method to delimit the rainfall regions of Western Kenya. *Eastern and Southern Africa Geographical Journal 5: 1-17*
13. H.M.H. Braun and D.N. Mungai 1983. A new map of agro-climatic zones of Kenya. *The Kenyan Geographer, 5(1&2), pp. 48-55*

F2: Contributions in books or edited proceedings

14. Otsuki, K, W. Gera and D. Mungai, 2013. Multi-actor approaches to total sanitation in Africa. Policy Brief No. 8, United Nations University
15. C.J. Stigter, D.N. Mungai, C.K. Ong, J.M. Kinama and S.B.B. Oteng'i, 2004. Testing alley cropping (contour hedgerows) in semi-arid areas on flat and sloping land: soil and water conservation, competition, yields and economic factors: Case study of economically beneficial agrometeorological applications and services and of other success stories in agrometeorology for policy matters. In: *W. Baier (Coord.) CAgM Rep. 93, WMO/TD No. 1202, Geneva (Annex 9, pp. 44-47)*
16. D.N. Mungai, B. Swallow, J. Mburu, L. Onyango and A. Njui (Eds.), 2002. Proceedings of a workshop on Reversing Environmental and Agricultural Decline in the Nyando River Basin. *World Agroforestry Centre, 100 pp.*

17. T.M. Hai, C.K. Ong, and D. N. Mungai, 2000. The impact of land use and rainfall on runoff and sedimentation in the Lake Victoria Basin, Kenya. Poster presented at the Symposium on *Forest-Water-People in the Humid Tropics: Past, Present and Future Hydrological Research for Integrated Land and Water Management*, 30th July – 4th August at Equatorial Hotel Bangi, Malaysia. *International Union of Forest Research Organization (IUFRO) and International Hydrological Program (IHP)*
18. F.N. Gichuki, D.N. Mungai, C.K. Gachene and D.B. Thomas (Eds.), 2000. Land and water management: Towards sustainable land use in Kenya. *Proceedings of the Fourth National Land and Water Management Workshop. Nairobi, Kenya. ISBN 9966-9690-0-4*
19. J.R. Barnes, D.N. Mungai and D.B. Thomas, 2000. Use and management of *Lantana Camara* by village farmers near Machakos, Kenya: An example of ingenuity in use of locally available resources. In: *F.N. Gichuki, D.N. Mungai, C.K. Gachene and D.B. Thomas (Eds.), 2000. Proceedings of the Fourth National Land and Water Management Workshop. Nairobi, Kenya. ISBN 9966-9690-0-4*
20. W.N. Wamicha, D.N. Mungai and P.M. Maingi, 2000. Soil degradation in parts of upper Migori River catchment In: *F.N. Gichuki, D.N. Mungai, C.K. Gachene and D.B. Thomas (Eds.), 2000. Proceedings of the Fourth National Land and Water Management Workshop. Nairobi, Kenya. ISBN 9966-9690-0-4*
21. J.L. Njeru, D.N. Mungai, H.P. Liniger and G.S. Ongwenyi, 2000. The influence of vegetation on the water resources of the Naro Moru River catchment In: *F.N. Gichuki, D.N. Mungai, C.K. Gachene and D.B. Thomas (Eds.), 2000. Proceedings of the Fourth National Land and Water Management Workshop. Nairobi, Kenya. ISBN 9966-9690-0-4*
22. C.J. Stigter, F.J. Wang'ati, J.K. Ng'ang'a and D.N. Mungai (Eds.), 1995. The TTMI-project and the "Picnic"-model: an internal evaluation of approaches and results and of prospects for TTMI-Units. *Wageningen Agricultural University, Wageningen, The Netherlands, ISBN 90-6754-403-3, 251 pp*
23. D.N. Mungai, 1995. A microclimatological approach on understanding maize yield performance in alley cropping in the semi-arid areas of Machakos District, Kenya In: *C.J. Stigter, F.J. Wang'ati, J.K. Ng'ang'a and D.N. Mungai (Eds.), The TTMI-project and the "Picnic"-model: an internal evaluation of approaches and results and of prospects for TTMI-Units, Wageningen Agricultural University (Chapter 15, pp. 111– 123).*
24. S.B.B. Oteng'i, J.K. Ng'ang'a, D.N. Mungai, C.J. Stigter and H.P. Liniger, 1995. An investigation of the influence of mulching and agroforestry systems on microclimatic conditions affecting soil moisture and yields of a maize/bean intercrop. In: *C.J. Stigter, F.J. Wang'ati, J.K. Ng'ang'a and D.N. Mungai (Eds.), The TTMI-project and the "Picnic"-model: an internal evaluation of approaches and results and of prospects for TTMI-Units, Wageningen Agricultural University (pp. 124 – 135)*
25. D.A. Obara and D.N. Mungai, 1998. Socio-economic implications of soil conservation in the highland mountain ecosystems in Murang'a district, Kenya In: *F.F. Ojany (Ed.), African Mountains and Highlands: Planning for sustainable use of Mountain Resources. The United Nations University, pp. 132-150*
26. D.N. Mungai, C.L. Coulson and C.J. Stigter, 1990. Economic considerations of alley cropping for food production in semi-arid areas In: *R.T. Prinsley (Ed.), Agroforestry for Sustainable Production: Economic Implications. Commonwealth Science Council, London (pp. 311 – 321)*

27. C.J. Stigter, C.L. Coulson, D.N. Mungai, R.M.R. Kainkwa, A. El-Tayeb Mohamed, A.A. Ibrahim, F.S. Mpelasoka and B.I. Abdulai, 1989. Some examples of quantification in tropical agrometeorology for low-resource agriculture in Africa: instruments and on-farm research conditions. *Proceedings of the second ICTP/SAPAM Workshop on the Applicability of Environmental Physics and Meteorology in Africa, Addis Ababa University, ICTP/SAPAM, 16 pp*
28. C.J. Stigter, Ch. Baldy, C.L. Coulson, C.O. Othieno, A. El-Tayeb Mohamed, D.N. Mungai, R.M.R. Kainkwa and A.A. Ibrahim, 1989. Meteorological hazards and the low external input farmer: some case studies *In: J.S. Oguntoyinbo, J.B.' Omotosho and E.E. Ekuwem (Eds.), Meteorological Hazards and Development, Kola Okanlawon Publ., Lagos, Nigeria (pp. 59-64)*
29. Downing, T.E., Akong'a J., Mungai, D.N., Muturi, H.R. and Porter, H.L., 1988. Introduction to the Kenya case study. *In: Parry, M.L., Carter, T.R. and Konijn, N.T. (Eds.) 1988. The Impact of Climatic Variations on Agriculture, Vol. 2: Assessments in Semi-Arid Regions. Part II (pp. 129-148), Kluwer Academic Publishers, Dordrecht etc. ISBN 90-277-271-8 (Vol.2).*
30. Downing, T.E., Mungai, D.N. and Muturi, H.R., 1988. Drought climatology and development of the climatic scenarios. *In: Parry, M.L., Carter, T.R. and Konijn, N.T. (Eds.) 1988. The Impact of Climatic Variations on Agriculture, Vol. 2 Part II (pp. 149-173), Assessments in Semi-Arid Regions. Kluwer Academic Publishers, Dordrecht etc. ISBN 90-277-271-8 (Vol.2).*
31. Mungai, D.N. and Muturi, H.R., 1988. The effects on agroclimatic zones and agricultural production. *In: Parry, M.L., Carter, T.R. and Konijn, N.T. (Eds.) 1988. The Impact of Climatic Variations on Agriculture, Vol. 2 Part II (pp. 175-190): Aseessments in Semi-Arid Regions. Kluwer Academic Publishers, Dordrecht etc. ISBN 90-277-271-8 (Vol.2).*
32. Porter, H.L., Akong'a, A., Downing, T.E., Mungai, D.N. and Muturi, H.R., 1988. Implications for policy. *Part II (pp. 249-270), In: Parry, M.L., Carter, T.R. and Konijn, N.T. (Eds.) 1988. The Impact of Climatic Variations on Agriculture, Vol. 2: Assessments in Semi-Arid Regions. Kluwer Academic Publishers, Dordrecht etc. ISBN 90-277-271-8 (Vol.2).*
33. C.L. Coulson and D.N. Mungai, 1988. A preliminary analysis of the photoperiods in Kenya and their relationship to growing periods *In: Vol. II (pp. 205-226), Proceedings of the first Conference of Crop Science Society of Kenya, Nairobi, Kenya*
34. D.N. Mungai and W.N. Wamicha, 1985. The major soils of the arid and semi-arid areas of Kenya in relation to soil and water conservation *In: Proceedings of a soil and water conservation workshop on grazing lands, Ministry of Agriculture and Livestock Development, Soil and Water Conservation Division, Nairobi, pp. 119-150*

F3: Contributions to Environmental Regulations and Compliance

34. The Environmental (Impact Assessment and Audit) Regulations, 2003: Legal Notice No. 101. My contributions were both technical and administrative being the Chairman of a multi-disciplinary, multi-sectoral and multi-institutional Committee
35. Environmental (Impact Assessment and Audit) Operational Guidelines and Administrative Procedures
36. University of Nairobi Environmental Policy

F4: Contributions to commissioned work

37. D.N. Mungai, T. Thenya, A. Muthee, G. Muchemi, J.K. Mworira, G. Oduori and J. Kimani, 2011. Environmental, Social and Economic Assessment of the Fencing of the Aberdare Conservation Area. *UNEP, Kenya Wildlife Service, Kenya Forest Service, Kenya Forests Working Group and Rhino Ark*
38. D.N. Mungai, A. Muthee, Z. Serbaro, G. Yayehyirad, K. Jembere, M. Gabreyes, N. Kedir, G. Abdissa and B. Berhanu, 2009. Impact Assessment of the Public Works Program. *The Federal Democratic Republic of Ethiopia and the World Bank, 157 pp*
39. D.N. Mungai, N. Mwanki, J. Kibwage, P. Mbugua, G. Muchemi, M. Chiuri, R. Abila, W. Ojwang, M. Thande and T. Thenya, 2007. Environmental Impact Assessment Study Report for the Proposed Tana Integrated Sugar Project in Tana River And Lamu Districts, Coast Province, Kenya (Land Allocation Reference No. 106796 Of 17.1.1995). *Mumias Sugar Company and Tana and Athi Rivers Development Authority*
40. D.N. Mungai and S. Nyamori, 2007. Environmental Impact Assessment (EIA) Project Report for the proposed En-suite Complex, Pediatric Ward, Oxygen Plant and the IOM Renovations Project at the Nairobi Hospital, Upper Hill Area, Nairobi Province (Plot L.R. No. 209/4209), pp. 58. *The Nairobi Hospital*
41. J.B. Nyakang'o, K. Khisa, D.N. Mungai, R. Sitati, C. Gitobu, P. Ndung'u and C. Kinyanjui, 2006. Environmental Audit Report for Telkom (K) Ltd., pp. 267. *Telkom (K) Ltd.*
42. D.N. Mungai, J.B. Nyakang'o and T. Thenya, 2006. Environmental Impact Assessment Project Report for the Proposed Rose Flower Farm at Thika, Thika District. *Xpressions Flora Ltd., pp. 81*
43. D.N. Mungai and J.B. Nyakang'o, 2006. Initial Environmental Audit Report for Spenomatic (K) Ltd., Nairobi. *Spenomatic (K) Ltd., pp. 31*
44. D.N. Mungai, J.B. Nyakang'o and F.W. Mugo, 2005. Environmental Impact Assessment Project Report for the Proposed Karima House Extension Project, Kitisuru Area, Nairobi. *Imara Educational Foundation, pp. 40*
45. D.N. Mungai and J.B. Nyakang'o, 2005. Environmental Impact Assessment Project Report for the Proposed Residential Development in Kilimani, Nairobi (Plot LR No. 2/199. *AMS Properties Ltd., pp 37*
46. D.N. Mungai, J.B. Nyakang'o, K. Khisa, C. Kinyanjui and P. Ndung'u, 2005. Project Report for the Proposed Biomass Boiler Plant at BIDCO Oil Refineries Ltd., Thika. *BIDCO Oil Refineries Ltd., pp 48*
47. F.W. Mugo, D.N. Mungai and J.B. Nyakang'o, 2005. Environmental Audit Report for the Olekasai Abattoir, Ongata Rongai, Kajiado District. *Olekasai Abattoir Co. Ltd., 52 pp*
48. D.N. Mungai, J.B. Nyakang'o, K. Khisa and C. Kinyanjui, 2005. Environmental Impact Assessment Project Report for the Proposed Doctors' Plaza at the Nairobi Hospital, Upper Hill Area, Nairobi Province. *The Nairobi Hospital, pp 53*

49. D.N. Mungai, J.B. Nyakang'o and M. Ehsani, 2005. Environmental Impact Assessment Project report for the proposed housing complex in Kitisuru Area, Nairobi. *Magnolia Housing*, pp. 33
50. J.B. Nyakang'o, D.N. Mungai and J. Onderi, 2004. Environmental Audit Report for Welrods Ltd., Nairobi. *Welrods Ltd.*, pp. 32
51. J.B. Nyakang'o, D.N. Mungai and P. Ndung'u, 2004. Environmental Audit Report for the Toll Manufacturing Centre (TMC) of TWIGA Chemical Industries Ltd, Nairobi. *TWIGA Chemical Industries Ltd.*, pp. 47
52. Keino, K.W. Kipkemoi, J.B. Nyakang'o and D.N. Mungai, 2004. Project report for the proposed Geminia Insurance co. Ltd headquarters at Nairobi Hill. *Geminia Insurance Co. Ltd.*, pp. 45
53. J.B. Nyakang'o, D.N. Mungai, K. Khisa and P. Ndung'u, 2004. Environmental Audit Report for Nairobi Hospital for the Year 2004. *The Nairobi Hospital*, 40 pp
54. J.B. Nyakang'o, D.N. Mungai and F.W. Mugo, 2004. Environmental Audit Report for Keekonyokie Butchers Ltd, Kiserian, Kajiado District. *Keekonyoike Butchers Ltd.*, 51 pp
55. K. Khisa, J.B. Nyakang'o, D.N. Mungai and P. Ndung'u, 2004. An Environmental Audit Report for Baraza Ltd. *Baraza Ltd.*, 31 pp
56. D.N. Mungai and J.B. Nyakang'o, 2004. Project Report for the Proposed Lemotit Flower Farm at Londiani, Kericho District. *Finlay Flowers Ltd.*, 49 pp
57. J. B. Nyakang'o and D.N. Mungai, 2004. Project Report for the Proposed Candy (K) Ltd. *Candy (K) Ltd.*, 31 pp
58. D. N. Mungai, J.B. Nyakang'o and C. Gitobu, 2004. Project Report for the Proposed Expansion of Pwani Oil Products Ltd. Mombasa. *Pwani Oil Products*, 51 pp
59. J.B. Nyakang'o, D.N. Mungai and C. Gitobu, 2004. Environmental Audit Report for Pwani Oil Products Ltd., Mombasa. *Pwani Oil Products*, 52 pp
60. D.N. Mungai, 2005. Review of the Poverty-Environment Partnership (PE) Programs in Kenya, KEN/2004/041. *Department for International Development (DFID)*, 17 pp
61. N. Bech, D.N. Mungai , P. Odira, and R. Betch, 2005. Environment and Water Program, Kenya Follow-up Mission. *Royal Netherlands Embassy, Kenya*, 35 pp
62. D.N. Mungai, 2004. Assessment of Early Warning Systems for Flood Events in Kenya. *United Nations Environment Program*, 31 pp
63. D.N. Mungai and J.B. Nyakang'o, 2004. Project Report for the Western Kenya Integrated Ecosystem Management Project (WKIEMP).
www-wds.worldbank.org/external/default/.../Original/E974.doc, 28 pp
64. N. Bech, D.N. Mungai and P. Odira, 2004. Identification Mission Environment and Water Program, Kenya, Volume 1 – Main Report. *Netherlands Ministry of Foreign Affairs*, 32 pp
65. J.B. Nyakang'o, D.N. Mungai, K. Khisa, J.K. Mworja, S. Patel and P. Gesare, 2003. Environmental Impact Assessment Report for the Proposed Gypsum Mining Project by Kenya's Best at Owasan Sub-Location, Isinya Division, Kajiado District. *Kenya's Best (Nairobi)*, 35 pp

66. J.B. Nyakang'o, D.N. Mungai and M.O. Mbegera, 2003. A Pre-assessment Report on: Status of Afforestation in the Tobacco-Growing Areas of Kuria, Migori and Rachuonyo Districts (Nyanza Province). *Stancom Tobacco (Kenya) Ltd.*, 33 pp