

RESUME

DR. SILAS M. MUKETHA, PhD

Lecturer

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University of Nairobi

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A: BIO DATA

Date of Birth : November, 15th 1962

Marital Status : Married

Nationality : Kenyan

Occupation : Registered Physical Planner/ Registered and Licensed Land Surveyor/
Registered Lead Expert in Environmental Impact Assessment (EIA) and
Environmental Audit (EA)

B: EDUCATIONAL RECORD

University of Nairobi, P.O BOX 30197-00100, Nairobi

2010-2014: Doctor of Philosophy (**Urban Planning**)

Muketha S.M. (2014). *Riparian Zone Conservation in a Changing Urban Land Use Environment: A Case of Nairobi River Basin, Kenya.* (Unpublished Ph.D. thesis)

University of Nairobi, Nairobi

2004-2007: Master of Arts (**Urban & Regional Planning**)

Muketha S.M. (2007). *Planning for Sustainable Water Supply and Sanitation Infrastructure Services at the Suburbs. A Case of Ngundu Informal Settlement in Nairobi, Kenya.*

(Unpublished Master's thesis)

University of Nairobi, Nairobi

1985- 1988: Bachelor Science (Hons) Surveying and Photogrammetry

Muketha S.M. (1988). *Computation of Geodetic Datum transformation parameters using Molodensky – Badekas and Bursa-Wolf models. These are models for transformation of the satellite Datum co-ordinates to the local co-ordinates for use during mapping.* (Unpublished Undergraduate Research Project)

University of Nairobi, Nairobi

1982-1983: A-Levels (Math's, Physics, Chemistry, Further Math's) -(4P)-Alliance High School

1978-1981: O-Levels (First Division)-Meru School

2000: Trained, examined and certified as internal Auditor ISO 9001: by the Kenya Bureau of Standards (KEBS)

1999: Certificate in project planning and Management by Kenya Institute of Administration (KIA)

C: MEMBERSHIP AND REGISTRATION TO PROFESSIONAL ORGANIZATIONS

Fellow Member: Institution of Surveyors of Kenya (FISK) Reg. No 004, 2014

Full Member: Institution of Surveyors of Kenya (MISK), 2000

Member: Association of Licensed Surveyors of Kenya (ALSK), 2001

Corporate Member: Kenya Institute of Planners (MKIP), Reg. No. 0172, 2010

Corporate Member: Environmental Institute of Kenya (MEIK), Reg. No. 7586, 2016

Corporate Member: Architectural Association of Kenya, Town Planning Chapter (MAAK, TP), Reg. No. 2617, 2016

D: EMPLOYMENT RECORD

21.03.2016- To date: Lecturer, DURP, University of Nairobi

20.12.2014: Early retirement, National Water Conservation and Pipeline Corporation

8.10.2009-2010: Ag. General Manager Planning & Design, National Water Conservation and Pipeline Corporation

31.10.2011-2014: Vice Chairman, Research & Development Unit, National Water Conservation and Pipeline Corporation

23.04.2008-2014: Chief Surveyor, National Water Conservation and Pipeline Corporation

26.08.2008-2010: Team Leader -Strategic Planning & Business Unit, National Water Conservation and Pipeline Corporation

2006-2008: Deputy Chief Surveyor, National Water Conservation and Pipeline Corporation

1996-2014: Head of Survey Division, National Water Conservation and Pipeline Corporation

1994-2014: Surveyor I, National Water Conservation and Pipeline Corporation

22.01.1989-1994: Surveyor II, National Water Conservation and Pipeline Corporation

1988-1989: Surveyor II, Ministry of Water

E: ACADEMIC / TEACHING EXPERIENCE

BUR 107: Quantitative techniques for planners

I have successfully taught several first-year students since 2016 who passed the course and proceeded to the next level. I am also taking the current first year students through the same course unit

BUR 204: Elements of land surveying and cartography

I have been teaching Elements of Surveying and Cartography at the department of Urban & Regional Planning for the past 3 years. In this period, I have critically refocused the training of planners by introducing practical Land Surveying lessons customized to the planning practice.

BRE 213 & BQS 215: Urban and regional planning course

Taught on behalf of the department of **Real estate and Quantity surveying** 180 students who proceeded to the next level

BUR 309: Research Methodology (Module II): Academic Year 2010/2011

I was the course instructor for BUR 309 in the Department of Urban and Regional Planning (DURP) in the School of Built Environment in the University of Nairobi. This course aimed at giving students an opportunity to develop research, writing as well as presentation skills and techniques.

BUR 311: GIS and Remote Sensing (Regular)

I was the course instructor for BUR 311 in the academic year 2010/2011. The course introduced third year undergraduate students to basic concepts of Geographic Information Systems (GIS) and Remote Sensing. I taught the students applications of GIS and RS in planning.

BUR 405: Research Project

I have supervised and guided several undergraduate students since the year 2016 in their research projects some of which are in their final year and others have graduated successfully.

BUR 402: Development Project

I have supervised and guided undergraduate students since the year 2016 in their development projects some of which are in their final year and others have finally graduated successfully.

BUR 407: Regional studio I

Taught students the linkage between theoretical and practical perspectives using various data collection, analysis and presentation techniques

BUR 404: Regional studio II

I am currently the studio master for BUR 404. The studio is being conducted in Kilifi County

I have successfully supervised students to carry out regional studio in Githunguri and Tharaka Nithi County. Students graduated successfully.

BUR 510: Research Methods for Planners 1

I was the course instructors for BUR 510 in the academic year 2010/2011 in the Department of Urban and Regional Planning (DURP) in the School of Built Environment at the University of Nairobi. This was a Master of Arts (Planning) course that gave students an opportunity to develop research writing as well as presentation skills and techniques.

I have up-to-date supervised four (4) Masters Students to completion of their Research projects.

BUR 607: GIS and Remote Sensing - Masters Class

I have successfully taught masters students who passed the course unit. I am currently guiding second year master's students through the course unit.

Industrial Attachment/Supervision of Undergraduates under Internship

I have for many years supervised undergraduate land surveying students from the University of Nairobi, JKUAT, Kenya Institute of Surveying and Mapping & Technical University of Kenya. In recent years, I have also supervised undergraduate planning students from the Department of Urban & Regional Planning, University of Nairobi, Kenyatta University, Technical university of Kenya and Maasai Mara University. This was while I was the chief surveyor and head of strategic planning Unit at National Water Conservation and Pipeline Corporation and in my private practice as a registered surveyor and planner.

Educational field trip

I successfully guided students in my first year of employment on a field trip to Mombasa. The students were exposed and educated on the history of old towns, environmental conservation issues at Haller Park, cultural aspects at Gedi Ruins among other sites visited. After the tour, I guided the students to write a report that was submitted to the office of the principal CAE.

F: SUPERVISION OF MASTERS CANDIDATES TO COMPLETION

1. Paul Njoroge Ndungu, (2016). (Reg. No. B63/69881/2011) *Examining the Operations of Bicycle transport in a Turbulent Urban Transport System, A Case of Ngong' Road Nairobi City*, UoN, (Unpublished master's thesis). (MA deg.; Planning Graduated on 2nd September, 2016)

2. **Ruth Muchira, (2017). (Reg. No. B63/80939/2012) *Water and Waste water infrastructure improvement projects in informal settlements: A Case of KISIP project in KCC village Nairobi County, UoN, (Unpublished master's thesis). (MA deg.: Planning Graduated on 22nd September, 2017)***
3. **Eunice Mueni Mbithi, (2018). (Reg. No B63/81854/2015) *Assessment of Household Land Sizes and uses for Sustainable Food and Livelihood Security on Maize Farming Systems, A Case Study of Matetani Sub-location, Kangundo Sub-County, Machakos County, UoN, (Unpublished master's thesis). (MA deg.: Planning Graduated on 21st December, 2018)***
4. **Zephaniah Change Ayodo, (2019). (Reg No: B63/88160/2016) *Assessment of land size and use for sustainable food security in maize + potato mixed farming system: A Case of Rongo Pala Sublocation, Homabay County, UoN, (Unpublished master's thesis). (MA deg.: Planning Graduated on 14th September, 2019)***

G: PUBLICATIONS IN REVIEWED AND REFEREED JOURNALS

1. **Muketha, S.M. & Muinde, S.M (2019). *Cadastre Systems and their Effectiveness in Implementation of a GIS-Based Physical Addressing System: A Case of Kiambu, Thika and Machakos Towns in Kenya: ISSN: 2524-1354 (Online), ISSN: 2519-7851 (Print) Africa Habitat Review Journal Volume 13 Issue 1 (December 2019) <http://journals.uonbi.ac.ke/index.php/afr/index>. Published in 2019, 13th Edition.***
2. **Muketha, S.M. (2019). *Riparian Zones and their Roles in Enhancing Resilience to Flooding in Urban Areas: A Case of Nairobi River Basin. Under Review. (AHR 16- Volume 13). Africa HABITAT Review. ISSN: 2524-1354 (Online), ISSN: 2519-7851 (Print) Africa Habitat Review Journal Volume 13 Issue 1 (December 2019) <http://journals.uonbi.ac.ke/index.php/afr/index>. Published in 2019, 13th Edition.***
3. **Muketha, S.M. (2019). *Stakeholder roles, Perceptions and Behaviour Towards Conservation of Riparian Zones in Nairobi River Basin: Africa HABITAT Review. ISSN: 2524-1354 (Online), ISSN: 2519-7851 (Print) Africa Habitat Review Journal Volume 14 Issue 1 (May 2020). <http://journals.uonbi.ac.ke/index.php/afr/index>. Published in 2020, 14th Edition.***
4. **Muketha, S.M. (2019). *The Implication of Riparian Land Control and Contestation to Conservation: A Case of Nairobi River Basin, Kenya (AHR 15- Volume 13). Africa HABITAT Review. Under Peer Review for 2020, 14th Edition.***

5. **Muketha, S.M. (2019).** Assessment of Physical/ Ecological Conditions of Riparian Zones in Nairobi City County: A Case of Ngong, Mathare and Nairobi Rivers. (AHR 17- Volume 13). Africa HABITAT Review. Under Peer Review.
6. **Muketha, S.M. & Konyimbih, T (2012).** Riparian Zones in Nairobi City: A study in Planning and Conservation Approaches. Paper Published in Africa HABITAT Review 5 (2011). Journal of School of the Built Environment, University of Nairobi (peer reviewed, May 2012)

OTHER PUBLICATIONS

7. **Muketha, S.M., Kabiru, D & Ngeno, A (2018).** Towards an integrated location-based services in Kenya. A physical address system approach; ISK Journal April 2018 page 39
8. **Muketha, S. M. (2014)** Riparian Zone Conservation in a Changing Urban Land Use Environment. A case study of Nairobi River Basin, Kenya. Unpublished PhD Thesis University of Nairobi.
9. **Muketha, S.M., Muraguri J., Tallam, D. (2012).** Water infrastructure development and drought mitigation in ASALS: A case of Lagdera and Fafi constituencies, Garissa County, Kenya (Unpublished Development research). National Water Conservation & Pipeline Corporation
10. **Muketha, S.M. (2012).** Riparian Reserve Determination in Kenya: A policy perspective. A paper published in Kenya surveyor, v4 Issue 1, March 2012. Nairobi, Kenya
11. **Muketha, S.M. (2012).** Constitution (2010) and the Surveyor in Kenya. A paper published in Land Digest, A publication of the Institution of Surveyors of Kenya. Issue No. 12 March 2012
12. **Muketha, S.M. (2007).** Planning for Sustainable Water Supply and Sanitation Infrastructure Services at the Suburbs. A case study of Ngundu Informal Settlement in Nairobi Kenya. Unpublished MA Planning thesis, 2007, University of Nairobi.
13. **Muketha, S.M. (2003).** The role of the surveyor in construction works in Kenya- a technical paper for the Land and property digest journal, Institution of Surveyors of Kenya.

G: PUBLISHED BOOKS AND REPORTS

Opiyo, R.O., Muketha, S.M., Omollo, W.O, Mwaniki D. (2019) *Responsive Infrastructure and Service Provision Initiative Framing Smart Environment Attainment in Nairobi*. In: Vinod Kumar T. (Eds) Smart Environment for Smart Cities. **Advances in 21st Century Human Settlements, Springer, Singapore**

H: GRANTS AND RESEARCH CONSULTANCY

Muketha S. M. (2019-Todate). *Consultancy services for Review of the Master plan and preparation of an advisory structure plan for the Proposed Naivasha Industrial City at Kedong*. The project was funded by the National construction Authority (NCA) on behalf of the Ministry of Public Works.

Muketha S. M. (2018). *Forensic Investigation Report on Collapse of Milmet Dam in Solai Nakuru County, Republic of Kenya*. The project was funded by the National construction Authority (NCA) in response to the senate committee.

Muketha S.M. (2018). *Consultancy for mapping of the original Kibagare channel (course) and the banks on either side from Loresho to Limuru Road to identify developments and parcels encroaching on the riparian reserve*. The project was funded by the National construction Authority (NCA) on behalf of the Nairobi Regeneration Team of the Cabinet.

Muketha S. M. (2019). *GIS Mapping of Structures on Nairobi Rivers and their Riparian Reserves*. The project was funded by the National construction Authority (NCA) on behalf of the Nairobi Regeneration Team of the Cabinet.

I: PROFESSIONAL CONSULTANCY

Year	Project Name	Client	Contact address	Contract Sum in Millions
2020	Consultancy Services for Preparation of Kitengela and Ngong' Municipality ISUDPs	In association with Urban Lines and Vision RI consultancy firms	SCO 179, Sector 7, near jim khana, Sector 7, Sonipat-131001, Haryana, India	270
2020	Consultancy Services for the Road Reserve Survey and Title Survey of Machakos Turnoff-Sultan Hamud (A108) Road Section 48km	Kenya National highways Authority (KeNHA)	P.O. Box 49712 - 00100 Nairobi.	23
2019	Consultancy Services for Preparation of Integrated Urban Development Plans for Selected Urban Areas- Lot II	Tana River County Government	P.O. Box 29-70101 Hola.	26
2019	Consultancy Services for the Road Reserve Survey and Title Survey of Lanet-Njoro Turnoff- Timboroa (A8) Road Section-97km	Kenya National highways Authority (KeNHA)	P.O. Box 49712 - 00100 Nairobi	39
2019	Consultancy Services for Development of Land Use Master Plan for KCAA Central workshop	Kenya civil Aviation Authority (KCAA)	P. O. Box 30163-00100, Nairobi.	8.7

	Mlolongo and Central Transmitting Station in Moi International Airport Mombasa			
2019	Topographical Survey for Planning and Subdivision of Nanga Kihoto Farm- PHASE II	Nanga Kihoto Farmers Co-op. Society Ltd	P.O Box 2623 Thika	20
2017	The Topographical Survey, Amalgamation, and Change of user of the Chinese Confucius Institute along arboretum Drive	University of Nairobi (UoN)	P.O. Box 30197, GPO, Nairobi, Kenya	1.3
2017	Beacon re-establishment on the disputed boundary Kabete Campus	University of Nairobi (UoN)	P.O. Box 30197, GPO, Nairobi, Kenya	Pro bono
2017	Beacon re-establishment on the disputed boundary Kilimani Residential Houses	University of Nairobi (UoN)	P.O. Box 30197, GPO, Nairobi, Kenya	Pro bono
2016	Boundary Dispute for Dental School and Evangelical Church	University of Nairobi (UoN)	P.O. Box 30197, GPO, Nairobi, Kenya	Pro bono
2016	Topographical Survey and Master Planning of Utalii College Parcels of Land	In Association with Gitutho & Associates Architects	P.O. Box 1634-00100, Nairobi	23
2016	Engineering Survey of Proposed new Sewers in Nairobi City Water and Sewerage Company at Kawangware, Riruta, Waithaka, Embakasi, Ruai and Pipeline areas of Nairobi City county	In Association with Gath Consulting Engineers & World Bank	P.O. BOX 14279-00800, Nairobi.	10
2016	Five towns storm water drains Topographical Survey of Infrastructure for Engineering Purposes	In Association with Gath Consulting Engineers & World Bank	P.O. BOX 14279-00800, Nairobi.	5
2015	Topographical Survey of Proposed UNHCR site in Juba	United Nation High Commissioner for Refugees (UNHCR)	P.O. BOX 43801 - 00100, Lynwood	2
2014	Topographical Survey for review of roads, sewers, and storm water drainage for KISIP, Nakuru County	Kenya Informal Settlement Improvement Project (KISIP) through Gath Consulting Engineers	e-mail: kisip@housing.go.ke	10
2013	Topographical Survey of Proposed Thwake Dam axis and water and sewer reticulation in Kibwezi and Wote Towns	Ministry of water and irrigation through CAS consulting Engineers	P. O. Box 49720 Nairobi	6

2012	Surveying Consultancy Services for fixing and Monumentation of Angle Points and Marketing for centerline of Nanyuki-Isiolo 132kv electrical Transmission Line	Kenya Electricity Transmission Co. (KETRACO)	P.O. Box 34942 - 00100 Nairobi	5
2010	Proposed Micro-hydro project Chukudum-in the Eastern Equatorial Province –Southern Sudan	Barkwor Co. Ltd	Baricho Road, Vinodeep Tower, 3rd Floor <i>Zip/Postal Code</i> 3730-00100	1
2007	Consultancy services on updating and Digitizing of Engineering Drawings Nairobi	Nairobi City and Sewerage Co. Ltd in association with GeoMaps Africa	P.O. Box: 30656-00100 Nairobi GP O	23
2007	Proposed Access Road and Sewer Surveys for Windsor Park Phase 1 Kiambu - Nairobi	Kenya Tarmac Road Works Limited	P.O. Box 11250, NAIROBI	Supervision
2007	Proposed Hotel and Recreational facilities at Jabel Kujur Juba – Southern Sudan	Barkwor Co. Ltd.	Baricho Road, Vinodeep Tower, 3rd Floor <i>Zip/Postal Code</i> 3730-00100	1
2007	East African School of Aviation Embakasi	East African School of Aviation	P.O Box 30689-00100 Nairobi.	1.2
2006	Topographical Survey for JKIA, Embakasi	Kenya Airport Authorities	P.O Box 19001 (00501) Nairobi	0.5
2004	Aim Ma Kilungu Ranch LR Nos 1212,5835/2,1745,1744,1743/2,1696/6 and 1694 Machakos	AIMI MA KILUNGU LTD in association with Geodev Kenya Ltd.	P.O Box 51821 Nairobi.	20

J: NATIONAL RESPONSIBILITY

2019	Appointed Lead Consultant of the Ministerial Taskforce to undertake review of the master plan and preparation of an Advisory Structure Plan for Naivasha Industrial City, August 2019.
2019	Appointed as an examiner in the land surveyors board (LSB). This is a statutory body under the Ministry of Lands and Physical Planning for examination and registration of Surveyors in Kenya, 2019
2018	Appointed Lead Consultant of the special Multi-Agency Taskforce to undertake GIS Mapping to establish Structures encroaching riparian reserves along Nairobi Rivers, December 2018.

2018	Appointed Lead Consultant of the special Multi-Agency Taskforce to undertake GIS Mapping to establish Structures encroaching riparian reserves along Kibagare Stream in Nairobi, 2018
2018	Appointed a member of the taskforce that investigated the collapse of Solai dam, 2018
2015	Appointed Board Member of the Land Surveyors Board. This is a statutory body under the Ministry of Lands and Physical Planning for examination and registration of Surveyors in Kenya, 2015- to date
2010	Appointed Member of Likoni Water Office: Inter-ministerial Taskforce by Head of Civil Service, 2010
2009	Appointed Ag. General Manager, Planning and Design: National Water Conservation & Pipeline Corporation, 2009
2005/06 & 2006/07	Elected Secretary/ Council Member Land Surveyor's Chapter Institution of Surveyors of Kenya (ISK) 2005/06 & 2006/07

K: UNIVERSITY OF NAIROBI COMMITTEE MEMBERSHIP AND RESPONSIBILITIES

December 2019	Appointed as a member of ADD Studio centre committee: Appointed to offer Planning and Surveying consultancy services for the ADD Studio Centre Project.
August-September 2019	Acting Chairman DURP: Served as the acting chairman in the department of Urban and Regional planning from 5th August-6th September 2019, when the substantive chairman Prof. Karanja Mwangi was on his annual leave.

L: TRAINING AND WORKSHOPS

2019	Presenter - Validation Workshop on the Mapping of Riparian areas within Nairobi County and Stakeholder Engagement of the Reviewed Code of Conduct for the Construction Industry held on 22nd February, 2019 at Boma Inn, Nairobi.
2018	Presenter - Workshop of the taskforce to investigate the collapse of Solai dam in Nakuru held from 9th July 2018 at Molendant hotel in Naivasha
2018	Presenter - Workshop on special Multi-Agency taskforce to undertake GIS mapping to establish structures encroaching riparian reserves along Kibagare stream from Mwimuto village to Parklands, held on September, 2018.

2018	Physical Planners registration board continuous professional development workshop on “Development control in Kenya; process and procedures; presented by Augustine K. Masinde, EBS at Intercontinental Hotel, Nairobi 26th October, 2018
2018	Presenter - Stakeholders’ workshop on the Integrated Strategic Development Plan (ISUP) for Ngong municipality held on 6th September, 2018 at CITAM church, Ngong Town. (Team leader of the planning area under NaUSIP)
2018	Paper on implication of the skewed distribution and shortage of Licensed Surveyors Board perspective; presented to Land Surveyors Chapter at the 680 Hotel in Nairobi.
2016	Invitation to the statehouse summit on land held on 14th November 2016 at statehouse Nairobi.
2016	Mutual recognition agreement negotiation validation workshop for Land surveyors in the East African Community 17th -19th October, 2016 at EAC Secretariat, Arusha –Tanzania

M: REFEREES

Prof. I.K. Mwangi

Chairman, Department of Urban & Regional Planning
University of Nairobi
P.O Box 30197
Nairobi
Contact: 0715 754 873

Prof. Arch. Paul Maringa

Permanent Secretary
State Department of Infrastructure
Nairobi
Contact: 0707 707 865

Prof. James Ole Kiyapi

University of Eldoret
Contact: 0734 994 499

DR. SILAS M. MUKETHA, (Ph. D)

Dated: 07/02/2020