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Fredrick Tito Mwamati

(Professional Engineering Technologist - P. Eng. Tech)
Kenya Engineering Technology Registration Board
(KETRB)

Member Institution of Engineering Technologists of Kenya (M.IET-Kenya)

MBA (Strategic Management)

Research Project

Factors Determining Sustainability of the Rural Community Water Projects in Kenya

MSc

(Integrated Water Resources & Watershed Management)

Research Thesis

An Assessment of Groundwater quality in the Yatta Plateau in Kitui County, Kenya (Published in International Institute of Science and Technology (IISTE)-www.iiste.org)

Higher Diploma

(Building & Civil Engineering)

Diploma

(Water Supply Technology)

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THE CURRICULUM VITAE DETAILS

NAME: FREDRICK TITO MWAMATI

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Profession Civil Engineering

Specialization Water Engineering

Current position Chief Manager-Infrastructure Development-Tanathi Water Services

Board-Kenya. (Feb, 2012- To date).

Last Positions Community Projects Development Manager-Tanathi Water Services

Board- Kenya (Nov. 2008-Jan, 2012).

Program Water Officer-ADRA -Kenya. (Aug. 2005-Oct, 2008).

Site Manager – M.S.F. French Section- Southern Sudan.

(Feb, 2005-July, 2005).

Clerk of Works-Sharif Shopping Complex- Nairobi-Kenya.

(Jan, 2004-Jan, 2005).

Construction/Water & Sanitation Engineer - M.S.F. – French, East African Regional Office, Nairobi-Kenya. (Sept,1999-Jan, 2003).

Senior /Water Engineering Assistant - Ministry of Water

Development, Kenya. (Sept, 1989-Aug, 1999).

Key Competencies

- Strategic Management-Project Planning and implementation
- Project Monitoring and Evaluation
- Water & Sanitation Surveys, Proposal Development, Participatory Rural Appraisals, Community health, Hygiene and Sanitation trainings.
- Feasibility Studies, Design and Interpretation of Working drawings
- Construction Supervision in Civil Engineering Technology Works including Water Supply, Sewerage, Drainage, and Buildings.
- Staff mobilization and organization in Projects implementation.
- General Services & Works Contracts Management, Materials and Services procurement.

Education and Professional qualifications

- Professional Engineering Technologist-*P.Eng.Tech-KETRB-*(*Reg. No. P0056/5-17*)
- Member- *IET*, *Kenya* (*Reg. No. 486*)
- MSc. Water Resources Management-SEKU-Kenya, 2017. (Thesis: An Assessment of Groundwater Quality in Yatta Plateau, Kenya)
- MBA-Strategic Management-Moi University-Kenya, 2007. (Research Project: Factors Determining Sustainability of Rural Community Water Projects in Kenya)
- **Higher Diploma** in Building & Civil Engineering- Mombasa National Polytechnic College (Currently Technical University of Mombasa-TUM) Kenya 1997.
- **Diploma** in Water Supply Technology, Kenya Water Institute, Nairobi, 1989
- Kenya Certificate of Education, Div 11, St. Charles Lwanga High School, Kitui 1985.
- Certificate of Primary Education, Maths A., English A., Natural Sciences B. 1981.

Publications

• International Institute of Science and Technology (**IISTE**); Journal of Environment and Earth Sciences (*Vol. 7, No. 1 of 2017*): Paper: *An Assessment of Spatial and Temporal variations of Groundwater Quality in the Yatta Plateau in Kitui County, Kenya*

Other Trainings

- 1. Audit and Risk Management Course (Kenya School of Government- June, 2018)
- 2. Senior Management Course- (Kenya School of Government-February, 2018).
- 3. Design of Dams and Irrigation Systems (Eser Project and Engineering Co. Inc.-Mombasa-September, 2017)
- 4. Corporate Governance (Kenya School of Government-September, 2016)
- 5. Water Supply & Sanitation Utility Reform (World Bank Group-March, 2015.)
- 6. Corporate Governance (Kenya School of Government-November, 2014)
- 7. Water Technologies and Management Systems (Israel- March, 2014)
- 8. Corporate Governance (Kenya Institute of Administration-November, 2012)
- 9. Small Dam Development (Engicon Consultants & GIZ-Mombasa, Kenya- Oct, 2012)
- 10. Project Performance Enhancement Tool (African Development Bank-August 2011)
- 11. Community Project Cycle (Water Services Trust Fund-June, 2011).
- 12. Corporate Governance Program (KWSP-July, 2009)
- 13. Computer Literacy Ms office (Windows, Ms word, Access, PowerPoint, Ms Excel, AutoCAD 2000)-*Nairobi Institute of Technology (February-March, 2000)*
- 14. Participatory Hygiene And Sanitation Transformation (PHAST) (*Refro-Health-March*, 1999)
- 15. Participatory Rural Appraisals (*K.I.D.P-November*, 1994)
- 16. Appropriate Water Related approaches in ASAL areas (MLR &WD-March 1993)

Languages

• English: Fluent, Kiswahili: Fluent, Kikamba: Fluent.

Supplementary information

- Holder of Kenyan ID No 8990610
- Holder of Kenyan passport No A 2122091
- Holder of driving license (c.of.c. No 393339 EX B93)

Experience Record in Planning, Engineering Design, Construction and Management of Water & Sanitation Engineering Technology Projects and other Civil Engineering Technology works.

November 2008- To date: Development Work

Position: Chief Manager-Infrastructure Development- TANATHI Water Services Board : Community Projects Development Manager - TANATHI Water Services Board

Extra/Special Responsibilities:

• Responsible for Tanathi Water Service Board's operations whenever the Chief Executive Officer is away.

Key performance areas:

Overall management, direction, supervision and monitoring of the Infrastructure Development Department with specific mandate in the following key performance areas

• Projects Appraisal and Proposal formulation for Investment Plans

- Water Supply and Sewerage Infrastructure feasibility Studies, Planning and Design
- Supervision of Consultancy Services
- In-house Projects Design and Implementation
- Contract Management.
- Projects Quality Assurance (Monitoring and Evaluation).
- Institutional Support to Water Service Providers and Community Projects.

Major Achievements as a Chief Manager- Infrastructure Development.

The following Key projects among others have been successfully implemented.

 Co-ordination of Planning, Design and Rehabilitation/Lining with reinforced concrete of the 59Km Yatta Canal to mitigate against water loss through seepage. The lining increased efficiency

by eliminating water loss along the Canal and increasing flow from 1.3m3/s to 3m3/s

Co-ordination of Planning, Design and Construction of the Masinga-Kitui phase II Water Supply

& Sanitation Project involving a floating intake at Masinga Dam & Treatment works of capacity

9000m³/d ,13Km rising main ,90 Km distribution line (Sizes ranging from 500mm Dia-100mm

dia. Epoxy Coated Pipes), RC tanks- 2No.3000m³ & 1No. 1500m³ & an Elevated Steel tank-

150m³ and Kitui town sewerage system.

• Co-ordination of Planning, Design and Construction of Kajiado Town Water Supply project

involving Drilling & Equipping 2No.Boreholes, Laying of 110mm dia. Rising main, Pump

house, Fabrication and erection of a 250m³ pressed steel elevated tank and 12km of 200mm

dia. gravity line.

• Co-ordination of Planning, Design and Construction of Mutitu Town (Kitui) Water Supply

project involving, RC Sub-surface dam, Infiltration gallery, 50m³RC sump, Pump house, 6.2Km

rising main, 500m³ tank, Grade9 house and Distribution lines.

• Co-ordination of Planning, Design and Construction of Kaewa- Masinga Water Supply project

involving a 15km pipeline of diameters 250mm, 200mm & 90mm, Elevated tanks of 250m³ at

Masinga town & 100m³ at Kaewa market, 4 No. water kiosks and auxiliary works.

• Co-ordination of Design Review for the 77M High, 1.6Km Crest length (Concrete Faced Rock

fill) Thwake Multi-purpose Dam with a storage capacity of 651Million m³ intended for Water

supply, Irrigation and Hydropower generation.

August 2005-October 2008: Humanitarian / Development Work.

Position: Program Water Officer-- ADRA Kenya (August 2005-October 2008)

Key performance areas:

Coordination of all Water & Sanitation Activities in the Program.

Project Planning

- Mobilizing the community for water activities
- Conducting field surveys to identify and verify community needs
- Gathering information for operational plans and budgets

Project Implementation

- Development of Water Management Curriculum
- Development of logistics support for the water activities
- Accountability of water component materials and funds
- Ensuring adherence to water component schedule and donor obligations as per agreements.
- Managing water component budget as specified
- Liaising with government, local authorities and other partners in implementing the water activities
- Facilitating and motivating Technical Officers and other staff to implement the water activities
- Engaging and Supervising consultants as appropriate for the water activities

Water Component Reporting/Documentation

- Compiling monthly progress and financial reports for the Project Director
- Acquiring and filing documented evidence of the water activities in progress and of completed water points
- Preparing water component reports (interim and final report) as specified in the project agreements
- Facilitating impact evaluations on completion of water activities and reporting on findings
- Picking up on various opportunities that could assist the target communities in the field and pursuing them for funding.

Achievements

- Drilling and Equipping with Afridev Pumps of 100 Shallow (upto 80m deep) Boreholes in the project area financed jointly by ADRA Kenya and World Vision
- Construction of 11 Sand Dams in seasonal rivers within the project area.
- Community Water project management trainings.

Consultancy

- ADRA's Lead Consultant in Monitoring the implementation of the Grand Grass root Water and Sanitation Projects funded by Japanese Embassy in Kenya between February 2005 and June 2006.
- ADRA's Lead Consultant for Lake Victoria South Water Services Board (LVSWSB)
 in preparing a Water and Sanitation Proposal for Kapsorok Community in Kericho
 District which was presented to and funded by the Water Services Trust Fund between
 April 2006 and November 2006.

February 2005 – July 2005: Humanitarian Work -South Sudan.

Construction/Water & Sanitation Engineer – M.S.F. France- Southern Sudan. (Construction and Rehabilitation of Akuem Primary Healthcare Centre with 5 Departments, Common facilities, Water & Sanitation and Electricity)

Tasks and Responsibilities : (Site Manager – Technical and Administration.)

- Overall site organization and management.
- Supervision of Water & Sanitation Sub contractors (Borehole Drilling) and Electricians.
- Interpretation of working drawings (Architectural and Structural) for Implementation.
- Selection of materials.

- Recruitment, supervision and management of 3 skilled and unskilled workers fluctuating between 70 and 130 in number.
- Inspection of work to ensure adherence to the budget and appropriate workmanship.
- Training of unskilled labour (masons, carpenters joiners, welders, painters, plumbers) on basic construction techniques.
- Preparation and payment of staff salaries.

<u>January 2004 – January 2005: Private Sector- Sharif Shopping Complex, Eastleigh-Nairobi</u>

Position: Clerk of Works (COW).

(Sharif Shopping Complex (43.5m x 27.5m, Six Storey Building) Housing shops, Restaurant and Lodges.)

Duties:

- Overall site management and supervision of main contractor and sub-contractors on behalf of the client.
- Ensuring that the right qualities of materials are used.
- Ensuring that the specified construction procedures and workmanship is adhered to by the Contractor.
- Continuous inspection of the work to ensure that the structural design is adhered to.
- Monitoring and keeping day-to-day records of the actual work progress on behalf of the client.
- Advising the client and other stakeholders on any arising changes, alterations or omissions.
- Attending site meetings and reporting on the work progress.
- Informing the Architect on any non-conforming work.
- Programming with the contractor and sub-contractors with respect to ordering and delivery of materials and Liaising with specialist consultants on specialized work.

September 1999 – June 2003: Humanitarian Work

Position: Construction Engineer--Medecines Sans Frontieres- French section Nairobi Regional office for East Africa

- Designing and producing working drawings for buildings (Office, Residential and Health Institutions)
- Planning, Design and Supervision of Water & Sanitation and Solid Waste Management in MSF Health sponsored Institutions.
- Construction supervision of new Building structures including all Building Services.
- Maintenance of the Existing building structures
- General logistics and administrative responsibilities for the M.S.F French sponsored HIV/TB program in Nairobi (Mathare Sums) including all related procurement and stores management.
- Routine report writing

<u>1998 – 1999: Development work</u>

January 1998 – August 1999

Senior Water Engineering Assistant: Ministry of Water Development-Kenya.

- Planning, design and supervision of water supply projects (water pipelines, rock Catchments, shallow wells and roof catchments) funded by DANIDA and Adventist Development and relief agency in Kitui District
- Participatory Rural Appraisals in Kitui District

1995 – 1997: Mombasa National Polytechnic College

(September 1995 – November 1997)

Higher Diploma Course in Building & Civil Engineering

1989 – 1995: **Development Work.**

Water Engineering Assistant: Ministry of Water Development-Kenya

- Coordinating construction activities undertaken by NGOs in Kitui District
- Danish International Development Agency: **Constructions Liaison officer** for the District Water office, In charge of Water Tank Constructions programme. More than 500 Ferro cement water tanks and more than 1000 pit latrines were constructed in institutions within Kitui district. Participatory rural appraisals and community Trainings were also carried out.
- Supervising the construction of water pipelines, Shallow wells, earth dams, masonry and Ferro cement tanks, rock catchments and junior staff.

1986-1989: Kenya Water Institute

3 Year Diploma Course in Water Supply Technology.

Hobbies

- Social Activities work
- Reading Engineering Technology materials.
- Sporting
- Listening to music.

Personal Details

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House/cell phone : 0722671954/0722674545

Nationality : Kenyan

Date of Birth : 12/12/1966

E-mail : mwamati2009@yahoo.com

Sex : Male Marital Status : Married

Referees:

Nicholas K. Muthui.

Chief Executive Officer,

Tanathi Water Services Board.

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Phone: 0725915844 **Kioko Mutiso.**

Previously: Program Director-ADRA Kenya,

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