

George Waweru Macharia

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WORK EXPERIENCE

Acting Team Leader, Environment and Water Quality Division; National Water Harvesting & Storage Authority; **February 2017 to date:** Headquarters.

Duties and Responsibilities:

- Coordinating all laboratory related activities.
- Coordinating all research related projects and activities in the Authority.
- Coordinating water quality laboratory analysis on source water samples for all projects and data analysis.
- Preparing annual environmental sustainability reports based on data from waste amounts and resource consumption for the Authority.
- Supervising and participating in teams undertaking Environmental and Social Environmental Impacts Assessment (ESIA) for large dams and other projects.
- Representing the Authority's management and participating in activities related to the Climate Change Unit (CCU) domiciled in the Ministry of Water and Sanitation.
- Community engagement and coordination of all activities during the Resettlement Action Plan report preparation and implementation for large dams' projects.
- Contributing to improving the resilience of water catchment areas to climate change by participating in German Alumni Water Network (GAWN) funded initiative encouraging the use of Integrated Water Resources Management Principles in East Africa.
- Undertaking surface and groundwater resources assessment for an International Atomic Energy Agency (IAEA) funded Coordinated Research Project to find out sustainability of irrigation based horticulture in Naivasha area, Kenya.
- Coordinating the running of the day to day activities for the division.
- Preparing performance targets for the division and allocation of responsibilities.
- Participating in the preparation of water harvesting strategy and quarterly performance reports for the Authority.
- Budgeting for all activities, prioritizing their implementation and budget control for the division.

Deputy Team Leader, Environment and Water Quality Division; National Water Harvesting & Storage Authority, Kenya; **January 2016 to January 2017:** NWCP Headquarter.

Duties and Responsibilities:

- Establishing and setting up the inaugural donor funded Isotope analysis Laboratory in Kenya.
- Preparing manuals on analytical methods and techniques on chemical and biological water investigations.
- Coordination of sample collection and laboratory analysis before project commencement.
- Maintaining a water quality database for all water projects implemented, data analysis and report writing.
- Coordinating project monitoring and evaluation as well as environmental audits after project completion.
- Formulation and implementation of projects related to climate change resilience under CCU.

- Participating in the IAEA funded Kilimanjaro water resources assessment research project to find out the source of water for Lakes Challa and Jipe as well as any connections with springs in the project area.
- Planning and organizing seminars and public participation events for all stakeholders involved before project commencement in large, small dams and water pans construction.
- Liaising with host communities to develop a water resources management plan to ensure sustainable management of constructed dams and their catchment areas.

Senior Chemist; Ministry of Water and Irrigation, Kenya; **October 2012 to December 2015:** Headquarters.

Duties and Responsibilities:

- Water quality data analysis and compilation of the quarterly water quality status reports.
- Water quality monitoring and laboratory analysis for samples collected.
- Carrying out research to identify salinization potential and pollution vulnerability of coastal aquifers in Kenya.
- Training technical staff in Water treatment plants on operations, quality control and new technologies in water treatment.
- Data analyst for a Technical cooperation project titled “Integrating Isotope Hydrology into Water Resources Assessment for the Upcoming Lamu Port Infrastructure in the Lower Tana River Catchment.” Project partners Ministry of Water & Irrigation, WRMA and IAEA.
- Working with Water Resource Users’ Association to identify ways to adopt integrated water resource management principles in River basin management.
- Participating in community Hygiene and Sanitation Awareness for a Project in Kajiado district Kenya, which led to the district being declared Open Defecation Free (ODF), in 2013. Project partners the Government of Kenya, The Kenya WASH Alliance and others.

Consultant; GIZ - IS international development program, South Sudan; **February 2013 to May 2013:** *Lui Water Supply Project.*

Duties and Responsibilities:

- Setting up a water testing laboratory and requisition of appropriate equipment.
- Capacity building of water quality personnel and laboratory technicians to enhance performance.
- Starting up the newly constructed Lui water treatment plant processes and identifying all requirements necessary for day to day running of the plant.
- Ensuring project compliance with environmental regulations and other applicable legal statutes.
- Participating in the formulation of an appropriate public private partnership for the project.
- Ensuring the integrity of the water distribution network is maintained and adjusted where necessary.
- Ensuring steady water supply and maintaining good water quality through regular tests.
- Formulation and implementation of an appropriate monitoring and evaluation programme.

Chemist I; Ministry of Environment, Water and Natural Resources, Kenya; **June 2008 to July 2010:** Central Water Testing Laboratories.

Duties and Responsibilities:

- Supervision of Microbiology laboratory technicians and interns.
- Analysis of Physico – chemical and bacteriological parameters of water samples.
- Organizing equipment and personnel for sampling campaigns.
- Quality control of treated drinking water provided by water service providers.

- Pollution control and proposing appropriate industrial wastewater treatment methods to avoid pollution.
- Representing the Ministry in the establishment of a chemical information database for Kenya under the UNEP Chemicals supported Chemical Information Exchange Network (CIEN).

Volunteer; Little Sisters of the Poor, Kenya; **February 2007 to May 2008:** Nairobi.

Duties and Responsibilities:

- Organization of the work of volunteers and induction of new ones.
- Palliative care for the aged.
- Dining hall preparation and other allocated duties.

Sales assistant; Rywan Agencies, Kenya; **January 2001 to June 2002:** Maragwa.

Duties and Responsibilities:

- Sales of electrical appliances.
- Sales accounts reconciliation.
- After sales service.

EDUCATION AND TRAINING

- August 2010 to September 2012, *DAAD Scholar, Karlsruhe Institute of Technology*, Department of Chemical and Process Engineering, **M.Sc. in Utilities and Waste - Sustainable Processing. Majors:** *Utility Facilities* (Design, Management, Operation and Economics); *Combustion* (Combustion related environmental protection, High Temperature Process Engineering, Combustion Technology); *Chemical Fuels* (Energy content, Carbon content and Biofuels, Pollution mitigation and global warming).
- **Minors:** Water Chemistry, Water (drinking and sewerage) treatment, Solid and liquid waste processing and management, Phenomena of Storage, Transport and Conversion.
- October 2003 to September 2007, University of Nairobi, **B. Sc. (Chemistry)**. Majors: Analytical, Organic, Physical, and Inorganic Chemistry.
- September to November 2016, *CNESTEN, Morocco, IAEA Fellow*. Topic: *Application of Isotope Hydrology in Water Resources Management* (Water Resources Assessment, Determination of Climate Change Effects on Water Resources and Isotope Hydrology laboratory analysis and quality management).
- August 2002 to March 2003, *A.V.U – Kenyatta University*, **Certificate (Computer repair and maintenance)**.
- February 1996 to November 2000, *Mawingo Secondary School*, **Certificate (KCSE)**.

Complementary Qualifications

- Certificate in Integrated Environmental Impact Assessment & Environmental Audit.
- Certificate of participation in Kyoga Water Management Zone, Uganda, Integrated Water Resources Management Plan formulation.
- Certificate in Advanced Earth Observation in Water Management.
- Certificate in Change Management.

PERSONAL SKILLS AND COMPETENCIES

Languages: English, Proficiency – C2; Kiswahili, Proficiency – Excellent; German, Proficiency - B1.

Computer Skills and Competencies:

Good command and use of Microsoft office packages including MS – Excel, and MS - Access.

Knowledge of Visual basics programming language, and R environment for statistical operations.

Professional Affiliations: Member Environment Institute of Kenya (EIK), UNEP affiliated Chemical Information Exchange Network (CIEN), and German Alumni Water Network (GAWN).

REFEREES

1. Dr. Kenneth Koreje, Assistant Technical Coordination Manager; Water Resources Authority. P.O Box 45250 – 00100, Nairobi. Email: Kenneth.koreje@gmail.com; Mobile; +254727939141.
2. Mr. Daudi Kamau, Deputy Director, Water Quality and Pollution Control; Ministry of Water & Sanitation. P.O Box 49720 - 00100, Nairobi. Email: kamaudmn@gmail.com; Mobile: +254721903472.
3. Mr. Peter Masumba Ndunda, Pumps Expert and Team Leader Lui Water Supply Project GIZ –IS, South Sudan. P.O Box 71923 – 00622, Nairobi. Email: ndundapeter@gmail.com; Mobile: +254722168730/
+254733324984.