ENV Services Limited

Green Technologies and Solutions

Chemicals Supply and Disposal Profile

Prepared by:

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January 2021

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1. INTRODUCTION

1.1 Background Information

ENV Services Limited (ENV) is a local company incorporated on 29th November 2012 under Tanzania Companies Act (2002) and was awarded registration certificate no. 95589. The company operates legally by paying tax to the Government of the United Republic of Tanzania under TIN 101-041-123 and is registered for value added tax (VAT) with VAT registration number (VRA) 40-014333-W. Offices are located along Sam Nujoma road, opposite the Mlimani City. On the daily basis, ENV operations are handled by qualified Tanzanians who are experts in the fields of engineering (mechanical, environmental, chemical and process, energy, electrical, electronics and civil structures).

1.2 Area of Expertise

Areas of company experience in technical services include: -

- a) Supplies of industrial, electrical, and laboratory equipment
- b) Import and export
- c) Supply of laboratory chemicals
- d) Disposal of industrial chemicals
- e) Buildings and civil structures waterproofing and solutions
- f) Engineering installations and fabrications
- g) Environmental impact assessment and auditing
- h) Energy services
- i) Supplies of office and general merchandize
- j) Industrial services and consultancies
- k) Industrial safety solutions
- I) Electrical and electronics services

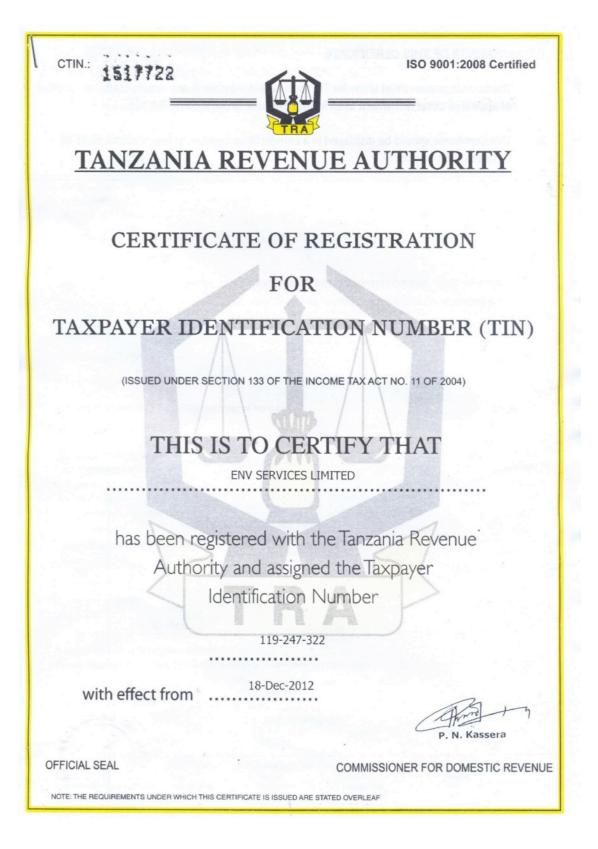
2. KEY TECHNICAL PERSONNEL

All technical activities carried out by ENV Services Limited are coordinated by a Team Leader who manages all operations. There is an Assistant Team Leader whose responsibility is to ensure a quality and timely execution of company activities. Depending on the nature of project at hand, ENV outsources services from a pool of affiliated individuals, institutes and companies.

3. COMPANY DOCUMENTS

3.1 Company Registration

	C.1
TANZANIA	
Certificate of Incorpo	oration
Section 15 No 95589	
I HEREBY CERTIFY	THAT
is this day incorporated under the	Companies
Act, 2002 and that the Company	is Limited.
Given under my hand at Da	r es salaam
this 29TH day of NOV	/EMBER
TWO THOUSAND AND TWELVE.	
	Ala.
Asst.	Registrar of Companies



3.3 VAT Certificate

ISO 9864-2008 CERTIFIED	VAT 108
TANZANIA REVENUE AUTHORITY	
Certificate of Registration for	
Value Added Tax (VAT)	
(ISSUED UNDER SECTION 20 OF THE VALUE ADDED TAX ACT NO. 24 OF 1997)	
THIS IS TO CERTIFY THAT ENV SERVICES LIMITED	
WHOSE TAXPAYER IDENTIFICATION NUMBER (TIN) IS 119-247-322	
HAS BEEN REGISTERED FOR VALUE ADDED TAX (VAT)	
AND ASSIGNED VAT REGISTRATION NUMBER (VRN) 40-014333-W	
FOR BUSINESS LOCATED AT GARDEN ROAD 430 DAR ES SALAAM	
WITH EFFECT FROM 21 December 2012	
GIVEN UNDER MY HAND	
THIS 21st DAY OF December 2012 P. N. Kassera	
COMMISIONER FOR VAT	
NOTE: THE REQUIREMENTS UNDER WHICH THIS CERTIFICATE IS ISSUED ARE STATED OVERLEAF FOR NATIONAL DEVELOPMENT FOR NATIONAL DE	EVELOPMENT

3.4 OSHA Certificate



DR. A.V KAYUMBA

CHIEF INSPECTOR

Note

- 1. This certificate is valid only in respect of the occupier and workplace named above.
- 2. This certificate is issued under, and solely for the purpose of, the Occupational Health and safety Act, and without prejudice to the requirments of any other legislation relating to the occupation of premises for industry purposes.
- 3. This Certificate should be attached to the General Register.

4. GOVERNMENT CHEMIST LABORATORY AGENCY (GCLA) CERTIFICATE

CN: 02249

GCLA/10/7/EI

THE UNITED REPUBLIC OF TANZANIA MINISTRY OF HEALTH, COMMUNITY DEVELOPMENT, GENDER, ELDERLY AND CHILDREN

GOVERNMENT CHEMIST LABORATORY AUTHORITY





REGISTRAR

P. O. BOX 164, DAR ES SALAAM

REGISTRATION CERTIFICATE

(Made under Section 29 of the ICCA CAP 182)

I hereby certify that M/S ENV SERVICES LIMITED of Plot No. 293 Sinza A, Ubungo, P. O. Box 22125, Dar es Salaam with Premises in Dar es Salaam has been approved and provisionally/ registered in Tanzania to operate as an Importer and Distributor of chemicals under Industrial and Consumer Chemicals Act, and granted

Registration No. 9331-94-0399

The special conditions attached to this certificate are:

- 1) Awarded Full Registration as per Section 22(1) of the Act,
- 2) Specific requirements will apply to Highly Hazardous and Restricted Chemicals appearing in the Third, Sixth, Seventh and Eight schedules to the Act.

7

5. LICENSE

5.1 Chemical Supplies License

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2. Nambari ya Ushuru wa mapato	. 247 . 3821
3. Leseni imetolewa kwa ENV SER	VICES LIMITED .
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katika Wilaya/Kanda* ya 11211400	Mtaa MHZA A
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5.2 **Brochure**

Furthermore, ENV Services Limited is supporting development of long-term environmental databases for Tanzania through its Higher Education Science Research Support (HESRS) program. Main areas of research in this program are in air quality, water quality and waste.

Other Services Offered by ENV

ENV is conversant with technical work in the following areas:

- Technical services (engineering) ٠
- . Technical and office supplies
- Energy services . .
- Training





Other Services



ENV Services Limited

Incorporating the Environmental and Energy Laboratory The only Laboratory with Hot Flue Dust (PM) Sampler in Tanzania, East and Central Africa Region



Hot flue dust (PM) sampler: Specialized equipment for particulate matter measurement from cement industry stacks, and flue gases from electrical generators, boilers and motor vehicles

ENV Services Limited

Sam Nujoma Road, Opposite Mlimani City, Plot Number 694, Block "Sinza A", Box 22125 Dar Es Salaam Tanzania: Tel.: +255 737 232 704, Fax: +255 736602030, Mob.: +255 766 771056/786 771056, Email: env.services@yahoo.com Web: www. envservices.co.tz

Environmental Services Offered

- Environmental and social impact assessments (ESIA)
- Environmental auditing
- · Physical, chemical and biological materials analysis

Experience in Environmental and Social Impact Assessment and Environmental Auditing

ENV was directly involved in environmental services to the following sectors in the East Africa region:

- Mining (gold and copper)
- · Cement factories
- Road construction
- Mobile phone communication towers (masts)
- Electrical substations
- Industries (pharmaceuticals, cosmetics, beverages, breweries, iron smelting, footwear, tobacco, sugar)
- · Agricultural processing (instant coffee, cotton, edible oil, tea)
- Electrical generators (natural gas, HFO, and diesel)
- · Service industry (hospitals, hotels)
- · Forestry (modern charcoal processing)
- · Petroleum (petrol stations and depots)
- · Iron and steel rolling mills

ENV Laboratories Key Equipment

Some important equipment with ENV Laboratories are:

- Hot flue dust (PM) sampler (VSS1)
- Combustion gas analyzer (models KANE 900PLUS and TESTO)
- Ambient air quality-dust sampler (Micro dust pro)
- · Ambient air quality- gas analyzer (GMI VISA, Draegger pump and tubes)
- · Sound/noise meter
- Vibration meter datalogger
- Illumination/Lux/Light meter
- · Water PH, TDS, salinity, conductivity and temperature meter, Oakton Testr 35
- · Digital air flow meter with temperature, humidity, and wet bulb temperature
- Humidity (RH) and multichannel temperature datalogger
- · Power quality analyzer data logger, Chauvin Arnoux CA 8334
- · Electrical meters for measurement of power kVA, kVAr, kW, kWh and cos o
- · Tachometers, contact and non-contact
- · Mechanical and electrical tools

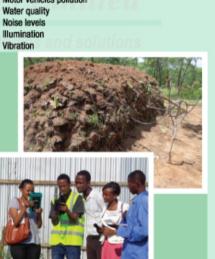
Research and Development (R&D)

ENV Services Ltd is keen to support the knowledge base through research and development. Various students from the following research Universities benefitted directly from ENV Laboratories equipment capacity:

- Makerere University .
- University of Dar es Salaam
- Ardhi University
- Nelson Mandela African Institution of Science and Technology, and
- Sokoine University of Agriculture

The main areas of students' research were in:

- Household indoor pollution from cookstoves
- Municipal waste dumpsite emission
- Energy (incineration process)
- Motor vehicles pollution



Research and development



Experience in Environmental and Social Impact Assessment and Environmental Auditing



Env Laboratory Equipment

6. RECENT SIMILAR SAMPLE ASSIGNMENTS

6.1 Chemicals Service Disposal to Tanzania International Petroleum Reserves (TIPER)

Name of Applicant or partner of a joint venture:		ENV Services Limited P. O. Box 22125, Dar es Salaam
1	Number of contract:	274207
	Name of contract:	Chemicals disposal
	Country:	Tanzania
2	Name of Employer:	Tanzania International Petroleum Reserves (TIPER)
3	Employer address:	Kigamboni, P. O. Box 2608, Tel: 022 2820179/177, Dar es Salaam
4	Nature of Goods/ Plant and Equipment and special features relevant to the contract for which the Applicant wishes to pre-qualify:	Chemicals - Professional supply - Authorized chemicals dealer
5	Contract role (check one):	
	Prime Supplier	\checkmark
	Management Supplier	
	Subcontractor	
	Partner in a joint venture	
6	Amount of the total contract/ subcontract/partner share:	TZS 29,915,360/=
7	Equivalent amount :	TZS 29,915,360/=
	Total contract:	TZS/US\$
	Subcontract:	TZS/US\$
	Partner share:	TZS/US\$
8	Date of award/completion	29 th May 2017 to 30 th December 2017
9	Contract was completed [insert number of months] months ahead/behind original scheduled (if behind, provide explanation):	Was completed in time.
10		369/= equivalent under original contract amount.
11	Special contractual requirements, including monthly/annual delivery rates of the key supplied goods described in PITA 4: N/A	
12		tal contract value (and TZ/US\$ amount) of goods/plants and , if any, and the nature of such Goods/Plants and Equipment. N/A

6.2 Hazardous Waste Disposal and Roof Treatment to TCC Plc. Factory

Name of Applicant or partner of a joint venture:		ENV Services Limited P. O. Box 22125, Dar es Salaam
1	Number of contract:	4700375547
	Name of contract:	Hazardous waste disposal and roof treatment
	Country:	Tanzania
2	Name of Employer:	Tanzania Cigarette Public Limited Company (TCC PLC)
3	Employer address:	Nyerere Road, P. O. Box 40114, Tel: 0782 373 001, Dar es Salaam
4	Nature of Goods/ Plant and Equipment and special features relevant to the contract for which the Applicant wishes to pre-qualify:	Chemicals Professional supplier and disposal Authorized chemicals dealer (GCLA)
5	Contract role (check one):	
	Prime Supplier	\checkmark
	Management Supplier	
	Subcontractor	
	Partner in a joint venture	
6	Amount of the total contract/ subcontract/partner share:	TZS 42,480,000/=
7	Equivalent amount :	TZS 42,480,000/=
	Total contract:	TZS/US\$
	Subcontract:	TZS/US\$
	Partner share:	TZS/US\$
8	Date of award/completion	1 st March 2019 to 11 th April 2019
9	Contract was completed [insert number of months] months ahead/behind original scheduled (if behind, provide explanation):	Was completed in time.
10	Contract was completed TZS 42,480,0	000/= equivalent under original contract amount.
11	described in PITA 4: N/A	
12	Indicate the approximate percent of total contract value (and TZ/US\$ amount) of goods/plants and equipment undertaken by subcontract, if any, and the nature of such Goods/Plants and Equipment.	

6.3 Hazardous Waste Disposal and Roof Treatment to TCC Plc. Offices

Name of Applicant or partner of a joint venture:		ENV Services Limited P. O. Box 22125, Dar es Salaam
1	Number of contract:	4700322760
	Name of contract:	Hazardous waste disposal and roof treatment
	Country:	Tanzania
2	Name of Employer:	Tanzania Cigarette Public Limited Company (TCC PLC)
3	Employer address:	Nyerere Road, P. O. Box 40114, Tel: 0782 373 001, Dar es Salaam
4	Nature of Goods/ Plant and Equipment and special features relevant to the contract for which the Applicant wishes to pre-qualify:	Chemicals Professional supplier and disposal Authorized chemicals dealer (GCLA)
5	Contract role (check one):	
	Prime Supplier	\checkmark
	Management Supplier	
	Subcontractor	
	Partner in a joint venture	
6	Amount of the total contract/ subcontract/partner share:	TZS 32,286,109/80
7	Equivalent amount :	TZS 32,286,109/80
	Total contract:	TZS/US\$
	Subcontract:	TZS/US\$
	Partner share:	TZS/US\$
8	Date of award/completion	
9	Contract was completed [insert number of months] months ahead/behind original scheduled (if behind, provide explanation):	Was completed in time.
10	Contract was completed TZS 32,286,7	109/80/= equivalent under original contract amount.
11	Special contractual requirements, including monthly/annual delivery rates of the key supplied goods described in PITA 4: N/A	
12	Indicate the approximate percent of total contract value (and TZ/US\$ amount) of goods/plants and equipment undertaken by subcontract, if any, and the nature of such Goods/Plants and Equipment N/A	

6.4 Hazardous Expired Chemicals Disposal

Name of Applicant or partner of a joint venture:		ENV Services Limited P. O. Box 22125, Dar es Salaam
1	Number of contract:	TMHS/DAR/2017/51
	Name of contract:	Disposal of expired chemicals
	Country:	Tanzania
2	Name of Employer:	Tindwa Medical and Health Services (TMHS)
3	Employer address:	P.O. Box 31409, Tel: 0782 515 036/0772 300 007, Dar es Salaam
4	Nature of Goods/ Plant and Equipment and special features relevant to the contract for which the Applicant wishes to pre-qualify:	Chemicals Professional supplier and disposal Authorized chemical dealer (GCLA)
5	Contract role (check one):	
	Prime Supplier	\checkmark
	Management Supplier	
	Subcontractor	
	Partner in a joint venture	
6	Amount of the total contract/ subcontract/partner share:	TZS 2,000,000/=
7	Equivalent amount :	TZS 2,000,000/=
	Total contract:	TZS/US\$
	Subcontract:	TZS/US\$
	Partner share:	TZS/US\$
8	Date of award/completion	12 th February 2018 to 21 st February 2018
9	Contract was completed [insert number of months] months ahead/behind original scheduled (if behind, provide explanation):	Was completed in time.
10	Contract was completed TZS 2,000,000/= equivalent under original contract amount.	
11	Special contractual requirements, including monthly/annual delivery rates of the key supplied goods described in PITA 4: N/A	
12	Indicate the approximate percent of total contract value (and TZ/US\$ amount) of goods/plants and equipment undertaken by subcontract, if any, and the nature of such Goods/Plants and Equipment N/A	

6.5 Chemicals Supply to Mbagala Kuu Secondary School

Name of Applicant or partner of a joint venture:		ENV Services Limited P. O. Box 22125, Dar es Salaam
1	Number of contract:	106
	Name of contract:	Supply of chemicals
	Country:	Tanzania
2	Name of Employer:	Mbagala Kuu Secondary School
3	Employer address:	P. O. Box 41463 Dar es Salaam
4	Nature of Goods/ Plant and Equipment and special features relevant to the contract for which the Applicant wishes to pre-qualify:	 Supply of chemicals Authorized chemicals dealer (GCLA)
5	Contract role (check one):	
	Prime Supplier	\checkmark
	Management Supplier	
	Subcontractor	
	Partner in a joint venture	
6	Amount of the total contract/ subcontract/partner share:	TZS 2,380,000/=
7	Equivalent amount :	TZS 2,380,000/=
	Total contract:	TZS/US\$
	Subcontract:	TZS/US\$
	Partner share:	TZS/US\$
8	Date of award/completion	16 th September 2019 to 18 th September 2019
9	Contract was completed [insert number of months] months ahead/behind original scheduled (if behind, provide explanation):	Was completed in time.
10	Contract was completed TZS 2,380,000/= equivalent under original contract amount.	
11	Special contractual requirements, including monthly/annual delivery rates of the key supplied goods described in PITA 4: N/A	
12	Indicate the approximate percent of total contract value (and TZ/US\$ amount) of goods/plants and equipment undertaken by subcontract, if any, and the nature of such Goods/Plants and Equipment.	

6.6 Chemicals Supply to Kola Hill Secondary School

Name of Applicant or partner of a joint venture:		ENV Services Limited P. O. Box 22125, Dar es Salaam
1	Number of contract:	00931
	Name of contract:	Supply of chemicals
	Country:	Tanzania
2	Name of Employer:	Kola Hill Secondary School
3	Employer address:	P. O. Box 6804 Morogoro
4	Nature of Goods/ Plant and Equipment and special features relevant to the contract for which the Applicant wishes to pre-qualify:	 Supply of chemicals Authorized chemicals dealer (GCLA)
5	Contract role (check one):	
	Prime Supplier	\checkmark
	Management Supplier	
	Subcontractor	
	Partner in a joint venture	
6	Amount of the total contract/ subcontract/partner share:	TZS 8,523,000/=
7	Equivalent amount :	TZS 8,523,000/=
	Total contract:	TZS/US\$
	Subcontract:	TZS/US\$
	Partner share:	TZS/US\$
8	Date of award/completion	16 th August 2018 to 21 st August 2018
9	Contract was completed [insert number of months] months ahead/behind original scheduled (if behind, provide explanation):	Was completed in time.
10	Contract was completed TZS 8,523,000/= equivalent under original contract amount.	
11	Special contractual requirements, including monthly/annual delivery rates of the key supplied goods described in PITA 4: N/A	
12	Indicate the approximate percent of total contract value (and TZ/US\$ amount) of goods/plants and equipment undertaken by subcontract, if any, and the nature of such Goods/Plants and Equipment.	

6.7 Chemicals Supply to Kiparang'anda Secondary School

Name of Applicant or partner of a joint venture:		ENV Services Limited P. O. Box 22125, Dar es Salaam
1	Number of contract:	00352
	Name of contract:	Supply of chemicals
	Country:	Tanzania
2	Name of Employer:	Kiparang'anda Secondary School
3	Employer address:	P. O. Box Pwani
4	Nature of Goods/ Plant and Equipment and special features relevant to the contract for which the Applicant wishes to pre-qualify:	 Supply of chemicals Authorized chemicals dealer (GCLA)
5	Contract role (check one):	
	Prime Supplier	\checkmark
	Management Supplier	
	Subcontractor	
	Partner in a joint venture	
6	Amount of the total contract/ subcontract/partner share:	TZS 4,767,500/=
7	Equivalent amount :	TZS 4,767,500/=
	Total contract:	TZS/US\$
	Subcontract:	TZS/US\$
	Partner share:	TZS/US\$
8	Date of award/completion	22 nd March 2015 to 23 rd March 2015
9	Contract was completed [insert number of months] months ahead/behind original scheduled (if behind, provide explanation):	Was completed in time.
10	Contract was completed TZS 4,767,500/= equivalent under original contract amount.	
11	Special contractual requirements, including monthly/annual delivery rates of the key supplied goods described in PITA 4: N/A	
12	Indicate the approximate percent of total contract value (and TZ/US\$ amount) of goods/plants and equipment undertaken by subcontract, if any, and the nature of such Goods/Plants and Equipment.	

6.8 Chemicals Supply to Room to Read

Name of Applicant or partner of a joint venture:		ENV Services Limited P. O. Box 22125, Dar es Salaam
1	Number of contract:	2115
	Name of contract:	Supply of chemicals and books
	Country:	Tanzania
2	Name of Employer:	Room to Read
3	Employer address:	P. O. Box Dar es Salaam
4	Nature of Goods/ Plant and Equipment and special features relevant to the contract for which the Applicant wishes to pre-qualify:	 Supply of chemicals Authorize chemicals dealer (GCLA)
5	Contract role (check one):	
	Prime Supplier	\checkmark
	Management Supplier	
	Subcontractor	
	Partner in a joint venture	
6	Amount of the total contract/ subcontract/partner share:	TZS 5,200,000/=
7	Equivalent amount :	TZS 5,200,000/=
	Total contract:	TZS/US\$
	Subcontract:	TZS/US\$
	Partner share:	TZS/US\$
8	Date of award/completion	12 th December 2015 to 15 th December 2015
9	Contract was completed [insert number of months] months ahead/behind original scheduled (if behind, provide explanation):	Was completed in time.
10	Contract was completed TZS 5,200,000/= equivalent under original contract amount.	
11	Special contractual requirements, including monthly/annual delivery rates of the key supplied goods described in PITA 4: N/A	
12	Indicate the approximate percent of total contract value (and TZ/US\$ amount) of goods/plants and equipment undertaken by subcontract, if any, and the nature of such Goods/Plants and Equipment N/A	

7.0 PERSONNEL CAPABILITY

7.1 Key Technical Personnel Summary

All technical activities carried out by ENV Services Limited are coordinated by a Team Leader who manages all operations. There is an Assistant Team Leader whose responsibility is to ensure a quality and timely execution of company activities. Depending on the nature of project at hand, ENV outsources services from a pool of affiliated individuals and companies. Following are the key technical personnel to be deployed for the environmental monitoring at TCC:

- 1) Eng. Dr. Lugano Wilson, Lic. (Eng.); Ph.D. (Energy) and EIA Expert
- 2) David Linus Linda, B.Sc. Environmental Engineering (Laboratory Analyst and EIA Expert)
- 3) Eng. Peter Kalist, B.Sc., Engineering (Inspector and EIA Expert)
- 4) Gilbert K. Grid, B.Sc., Environmental Laboratory Science and Technology
- 5) Yohana Marco Lameck, B.Sc., Environmental Laboratory Science and Technology

7.2 Eng. Dr. Lugano Wilson, Lic. (Eng.); Ph.D. (Energy) and EIA Expert

Personal Data

Full Name:	Lugano Wilson
Date of Birth:	26 th April 1964
Nationality:	Tanzanian
E-mail:	luganowilson@yahoo.com
Mobile:	+255 715 771056/+255 766 771056

1. Key Qualifications:

Dr. Lugano Wilson is an experienced expert in energy and environment. In a period of over 25 years, he has supervised and implemented industrial projects; energy research projects; and consultancy projects in the field of energy management (industrial, commercial centres, and households), renewable energy technologies and environmental management. These projects were implemented at both national and international level.

He holds a degree of Licentiate of Philosophy in Engineering (Furnace Technology) from the Royal Institute of Technology (KTH) in Stockholm Sweden and a Doctorate of Philosophy (Ph.D.) in Energy Engineering from the University of Dar es Salaam Tanzania where he was also awarded a Masters degree (Mechanical Engineering). He has attended various professional trainings. As a result of his professional work, Dr. Lugano has produced over 60 papers and technical writings.

2. **Professional Experience – OHS, EIA and Environmental Auditing**

- 2.1 Initial Environmental auditing study for Sika Tanzania Construction Chemical (STCC), January, 2018.
- 2.2 Environmental auditing study for Trade Gents Tanzania Ltd, Feb, 2018.
- 2.3 Expired Chemicals Disposal for Tanzania International Petroleum Reserves (TIPER) Kigamboni Depot, P. O. Box 2608, Dar es Salaam. February 2018
- 2.4 Baseline environmental study for the proposed Starch Industry at Mbeya Region, November 2017.
- 2.5 IPTL Tegeta (100 MW) power plant semiannual environmental auditing, since 2011
- 2.6 Wärtsilä Tegeta (45 MW) power plant semiannual environmental auditing, since 2010
- 2.7 Semiannual environmental auditing Shelys pharmaceuticals ltd plant (Dar es Salaam), Since 2012
- 2.8 Environmental assessment by measuring dust emissions (PM, TSP, PM10 and PM2.5) from stacks/Chimney in cement factory and ambient surrounding the factory. Client: Moshi Cement Jun Yu Investment International Company Ltd P. O. Box 58 Himo, Moshi Tanzania: December 2017
- 2.9 Occupational hygiene monitoring for Tanzania Cigarette Company Limited 20, Nyerere Road, P. O. Box 40114, Dar es Salaam salaam Tanzania: November 2017
- 2.10 Boiler gaseous emission assessment for Tanzania Distilleries (Konyagi), P. O. Box 9412, Mbozi Road, Distilleries Building, Chang'ombe, Dar es Salaam, Tanzania: November 2017
- 2.11 Environmental Impact Assessment for a Proposed Wind Farm in Nala Area, Dodoma Municipality, Tanzania: November 2017

- 2.12 Environmental Audit for Rehabilitation of Mafinga Igawa Road to Bitumen Standard, Lot 2: Nyigo - Igawa Section (63.8 Km), for China Railway Seventh Group Co. Ltd (CRSG) Site Office in Wanging'ombe, Njombe, Tanzania: October 2017
- 2.13 Charcoal Briquettes Analysis covering heating value and heavy and alkaline earth metals (Lead, Cadmium Chromium, Copper Zinc, Nickel, Magnesium, Sodium, Potassium) for ONGAWA, P. O. Box 4328 Dar es Salaam, Tanzania: July 2017
- 2.14 Initial Environmental Audit to the Kifaru Quarry Company Limited (Nyange Plant), located in Mwanga district, Kilimanjaro Tanzania: June 2017
- 2.15 Biogas Analysis for Tanzania Breweries Limited, P. O. Box 2013, Dar es Salaam: May 2017
- 2.16 Initial Environmental Audit (Air Quality) to the Tilisho Petrol Stations, Rombo district, Kilimanjaro region for Valerian Hugo Shirima, P. O. Box 103, Rombo, Kilimanjaro, Tanzania: May 2017
- 2.17 Environmental study at ASPAM Energy (T) Limited Tank Farms, P. O. Box Temeke District, Dar es Salaam Region, Tanzania: March 2017
- 2.18 Environmental Audit for Jiangxi Geo-Engineering (Group) Corporation Tanzania Strategic Cities Project (IDA Credit No. 5460-TZ) Package 4: Upgrading of Unga Ltd – Muriet Road & Burka Burka Bridge, Extension of Bondeni Storm Water Drain & Addition of One Cell at Muriet Landfill; Contract No.LGA/003/2015-2016/W/49, Arusha City, Tanzania: Feb. 2017
- 2.19 Environmental assessment: Vita Foam Factory, Nyakato industrial area, Mwanza Tanzania: November 2016
- 2.20 Environmental study at Edward Michand's Health Centre incinerator, 2016
- 2.21 Environmental auditing for Coca cola Kwanza ltd, Dar es salaam plant , 2016
- 2.22 Environmental audit study at Tanzania Breweries Limited, Dar es salaam plant, 2016
- 2.23 Environmental baseline and audit study for existing and new feed mill plant at Silverlands Tanzania Ltd, Makota Farm, Iringa district, Iringa region; 2016
- 2.24 Environmental audit for Nyati cement factory hot flue stacks
- 2.25 Environmental audit study for clinker cement factory plant, Tanga plant; 2016
- 2.26 Environmental audit for lime factory, Rhino plant, Tanga plant; 2016
- 2.27 Initial environmental study for the construction and operation of sawmill facility in Nanjirinji 'A' village, Nanjirinji ward, Kilwa district, Lindi region; 2016.
- 2.28 Baseline environmental audit of the existing mini-hydroelectric power plant and diesel generators and new proposed plant at Mngeta farm in Mngeta village, Mchombe ward, Kilombero district, Morogoro region, Tanzania; 2016
- 2.29 Environmental audit study for Kilombero Sugar Company Limited incinerator
- 2.30 Environmental assessment study for lime stone mine site in Mtwara region; 2016
- 2.31 Roadside air quality and noise study for Arusha and Kilimanjaro region covering Tengeru, Boma Ng'ombe, Moshi, Himo and Holili stations; 2016
- 2.32 Contract EA/TZ/CON/2015/06 research on the economic analysis of improved firewood cooking stoves (ICS) and its implication on livelihoods and environmental sustainability, Dec 2015
- 2.33 Baseline environmental study for the proposed Dar es Salaam port expansion/modernization project, Dec 2015
- 2.34 Baseline environmental study for 130 million litres per day water treatment plant construction works for DAWASA, upper Ruvu, Dec. 2015
- 2.35 Environmental audit study for World Oil terminal in Kigamboni Dar es Salaam, Tanzania, Jan. 2016

- 2.36 Environmental audit study for GAPCO Kurasini petroleum terminal, Dar es Salaam Tanzania, Jan. 2016
- 2.37 Environmental baseline study at the proposed GAPCO petroleum filling station at Uyole, Mbeya Tanzania, Dec 2015
- 2.38 Mombasa (Kenya) Kipevu II power plant (74.5 MW) environmental audit, July, Dec. 2014
- 2.39 Environmental auditing to AM Steel & Iron Mills Ltd, Jan 2015
- 2.40 Stack emission and hot flue particulate matter (PM) assessment to lake cement factory, Kimbiji village, Dar es Salaam , Jan 2014
- 2.41 Environmental and social impact assessment (ESIA) of the proposed extension and rehabilitation of existing Aga Khan Hospital in Dar es Salaam, Tanzania, Nov. 2014
- 2.42 Environmental auditing to TANICA instant coffee plant, Nov. 2014
- 2.43 Environmental auditing study to Engen petrol stations and petroleum fuel depots located in Dar es Salaam, Arusha, Mwanza and Kigoma, May 2014
- 2.44 Environmental audit study for Serengeti Breweries Limited, Mwanza Tanzania, March 2014
- 2.45 Environmental auditing study rhino cement factory, Mkuranga, Nov. 2013
- 2.46 Environmental auditing study for mafia port access road upgrading project, Feb 2013
- 2.47 Baseline environmental assessment study to three proposed TANESCO substations at Muhimbili, Jangwani, Mwananyamala, and Masaki, Aug. 2013
- 2.48 Environmental Audit Study for the Coca Cola Plant, Mwanza, March 2012
- 2.49 Environmental audit study at the TPC sugar processing plant, Moshi, July 2011
- 2.50 Environmental audit for Ubungo Wärtsilä plant, Dar es Salaam, 2011/10

3. Academic Qualifications

- 3.1 Ph.D. (Energy Engineering); University of Dar es Salaam, Tanzania (2013)
- 3.2 Ph.L. (Licentiate of Philosophy in Engineering); Royal Institute of Technology (KTH), Stockholm, Sweden (2010)
- 3.3 M.Sc. (Mechanical Engineering); University of Dar es Salaam, Tanzania (1997)
- 3.4 B.Sc. (Engineering); University of Dar es Salaam, Tanzania (1992)
- 3.5 "A" Level; Usagara High School, Tanga (1986)
- 3.6 "O" Level; Sangu Secondary School, Mbeya (1983)
- 3.7 Leaving Certificate; Tenende Primary School, Kyela Mbeya (1979)

4. Other Professional Training

- 4.1 Corporate Governance and Leadership Program; Eastern and Southern African Management Institute (ESAMI); Njiro Hill, Arusha, Tanzania, 18th 22nd April 2017
- 4.2 Advanced Training Course on Energy Use and Planning; Life Academy under Sida, Karlstad Sweden, August 2015
- 4.3 Coal Technologies and Coal Resource Quality Assessment; Council of Scientific and Industrial Research, Central Institute of Mining and Fuel Research (CSIR-CIMFR), Digwadih Campus, Dhanbad - 828108, Jharkhand, India, January – April 2014
- 4.4 Application of Renewable Energy for Rural Electrification; Institute for Energy and Transport under the European Commission (JRC), Ouagadougou, Burkina Faso, November 2011

- 4.5 Training on Developing Institutional and Public Access Repositories of Environmental Information for National Environmental Portal; 7th 11th June 2010, SLADS, Bagamoyo, Tanzania
- 4.6 UKERC Energy Summer School; 5th 10th July 2009, University of Sussex 2009; Brighton, United Kingdom
- 4.7 Resource Cost Reduction (RECORE) Environment Oriented Cost Management (EoCM) Training for Consultants; Nairobi, 3rd 6th November 2003
- 4.8 Elimination of Leaded Gasoline; The World Bank Group, Dar es Salaam 09th 10th June 2003; Dar es Salaam Tanzania
- 4.9 Energy Management and Cleaner Production in Small and Medium Scale Industries, University of Twente/Maastritch School of Management, The Netherlands 7th October 9th November 2002
- 4.10 Environmental Impact Assessment; Dar es Salaam, 5th 12th August 2002
- 4.11 Business Plan Development; Dar es Salaam, 28th Nov. 10th December 2001
- 4.12 Best Available Technologies for Ceramic and Glass Ceramic Production; DemoCenter, Modena Italy, 26th June – 01st July 2000
- 4.13 Advanced Project Proposal Writing and Negotiation Skills; Dar es Salaam, 25 28th Oct. 1999
- 4.14 Research Methods Research on Poverty Alleviation (REPOA), Dar es Salaam, 1998
- 4.15 Design Engineering University of Dar es Salaam/Delft (Netherlands); Dar es Salaam, 1999
- 4.16 SADC Industrial Energy Management SADC; Dar es Salaam, 1996

5. Publications

- 5.1 Elsevier Journal (Bioresource Technology) Reviewer, 2010 to-date
- 5.2 Elsevier Journal (Fuel Processing Technology) Reviewer, 2012 to-date
- 5.3 African Journal of Engineering Research (www.netjournals.org) Reviewer, 2012 to-date
- 5.4 Journal of Logistics, Management and Engineering Sciences (GLMES) Reviewer, 2013 to-date
- 5.5 Journal of Materials for Renewable and Sustainable Energy (MRSE) Reviewer, 2014 to-date
- 5.6 Oyelami Benjamin Oyediran, **Lugano Wilson**, David Linda (2017), "Modeling CO, CO₂ and NO_x Evolution from Small and Medium Size Electric Gensets", American Journal of Modeling and Optimization, 2018, Vol. 6, No. 1, 1-17; Available online at http://pubs.sciepub.com/ajmo/6/1/1
- 5.7 **Lugano Wilson** and Hossen Iddi (2016), "TIRDO Role in Development of Sustainable Energy Technologies for Supporting the Industrialization Process in Tanzania", REPOA's 21st Annual Research Workshop, Ledger Plaza Bahari Beach Hotel, Dar es Salaam, 06 – 07th April 2016
- 5.8 Esebi A. Nyari, Tatiana Pogrebnaya and Lugano Wilson (2015), "Energy Sector and Solar Energy Potential in Tanzania", International Journal of Emerging Technologies and Engineering (IJETE), Vol. 2, Issue 9, pp. 143-149
- 5.9 Astrid Szogs, **Lugano Wilson** and Ludovick Manege (2014), "Investigating linkages with external Actors: An analysis of three Tanzanian Universities", A paper presented at the 12th GLOBELICS International Conference: Partnerships for innovation-based development, 29th 31st October 2014, Addis Ababa Ethiopia

- 5.10 Esebi A. Nyari, Tatiana Pogrebnaya and **Lugano Wilson**, "Wind Farm Development in Tanzania: Challenges and Opportunities", 3rd International Conference on Mechanical and Industrial Engineering (MIE 2014), 14th 15th August 2014, Arusha Tanzania
- 5.11 Geoffrey John, Cuthbert Mhilu and Lugano Wilson, "Energy Efficiency Experience in Tanzania: The Case of Water Supply Systems", The 5th International Scientific Research Conference 2012, 5th - 7th December 2012, Butare, Rwanda
- 5.12 **Lugano Wilson**, Cuthbert F. Mhilu and Geoffrey R. John, "Biomass Gasification Parametric Study; Gibbs Equilibrium Model", International Conference on Technology Transfer on Renewable Energy (ICTTRE 2012), 21st – 22nd June 2012, Mauritius
- 5.13 Lugano Wilson, Cuthbert F. Mhilu and Geoffrey R. John, "Performance and Sustainability Improvement of the High Temperature Gasification (HTAG) Process by Air Preheating", Second Annual International Conference on Technology for National, Regional and Global Development and Integration (TNRGDI2012), 16th – 18th May 2012, Eldoret, Kenya
- 5.14 **Lugano Wilson**, Cuthbert F. Mhilu and Geoffrey R. John, "Jatropha Waste System Kinetic Study", Presented at the 2nd International Conference for Mechanical and Industrial Engineering, February 16th 17th 2012, Arusha Tanzania
- 5.15 **Lugano Wilson** and Geoffrey R. John, "Effects of Moisture Content in Biomass Gasification", The Second International Conference on Advances in Engineering and Technology (AET2011), 30th January – 1st February 2011, Imperial Resort Beach Hotel, Entebbe, Uganda
- 5.16 Geoffrey R. John and Lugano Wilson, "Modelling the Influence of Moisture Content in High Temperature Gasification (HTAG) of Biomass", The Second International Conference on Advances in Engineering and Technology (AET2011), 30th January – 1st February 2011, Imperial Resort Beach Hotel, Entebbe, Uganda
- 5.17 Lugano Wilson, Weihong Yang, Wlodzimierz Blasiak, Geoffrey R. John, Cuthbert F. Mhilu, (2011), "Thermal Characterization of Tropical Biomass Feedstocks", Energy Conversion and Management, Vol. 52, pp. 191 198
- **5.18** Lugano Wilson, Geoffrey R. John, Cuthbert F. Mhilu, Weihong Yang, Wlodzimierz Blasiak, (2010), "Coffee husks gasification using high temperature air/steam agent", Fuel Processing Technology, Vol. 91, pp. 1330 1337
- 5.19 L. Wilson, W. Yang, W. Blasiak, C. F. Mhilu, and G. R. John; "Gasification of Coffee Husks under High Temperature Conditions". International Conference on Green and Sustainable Innovation ICGSI_2009, 2nd – 4th December 2009, Le Meridien Chiang Rai Resort and Spa, Chiang Rai, Thailand
- 5.20 **L. Wilson,** G. R. John, C. F. Mhilu, W. Yang, and W. Blasiak; "Combustion Characteristics of Cashew Nut Shells and Coffee Husks by Thermogravimetry and Calorimetry". 17th European Biomass Conference & Exhibition, 29th June 3rd July 2009, CCH Congress Center Hamburg, Germany
- 5.21 G. R. John, **L. Wilson** and C. F. Mhilu, (2008), "Advances in the HTAG Technology and Process of Biomass". Scientific Research and Essay Vol.3 (7), pp. 267 – 275, http://www.academicjournals.org/SRE
- 5.22 A. Szogs and **L. Wilson, (**2008), "A system of innovation? Biomass digestion technology in Tanzania" Technology in Society, Vol. 30, pp. 94 103

- 5.23 **L. Wilson,** G. R. John and C. F. Mhilu; "Thermal Characteristics of Sugar Cane Bagasse with Storage". The 9th Asia-Pacific International Symposium on Combustion and Energy Utilization, 02nd – 06th November 2008, Beijing, China
- 5.24 G. R. John, C. F. Mhilu, L. Wilson and O. R. Mwaikondela; "University Industry Linkages and Engineering Education Teaching". 7th American Society of Engineering Education (ASEE) Global Colloquium on Engineering Education, 19th 24th October 2008, Cape Town, South Africa
- 5.25 L. Wilson, G. R. John, C. F. Mhilu and E. Kasembe; "The Need for Engineering Education to Foster Basic and Applied Technological Research". 4th African Regional Conference on Engineering Education (ARCEE – 2008), 22nd – 24th April 2008, Dar es Salaam, Tanzania
- 5.26 G. R. John, C. F. Mhilu, L. Wilson, O. R. Mwaikondela and E. Kasembe; Selected Pertinent Issues Affecting Industrial Combustion of Biomass" Conference on Collaborative Research for Technological Development, 17th – 21st December 2007, Kampala, Uganda
- 5.27 **L. Wilson** and G. R. John; "Energy Audit in Government Buildings" A Seminar on Efficient Use of Electricity in Government Buildings; 21st August 2007, Dar es Salaam, Tanzania
- 5.28 **L. Wilson,** W. Yang, W. Blasiak, G. R. John and C. F. Mhilu; "Opportunities and Challenges of Biomass Energy for Heat and Power Production in Tanzania". 3rd international green energy conference, 18th 20th June 2007, Västerås, Sweden
- 5.29 **L. Wilson,** L. Manege, A. P. Nanyaro and R. M. Nindie; "Energy Auditing as a Tool for Production Cost Reduction through Improved Energy Efficiency". Energy and Water Utilities Regulatory Authority (EWURA) Consumer Consultative Council stakeholders' workshop, 5th February 2007, Karimjee hall, Dar es Salaam Tanzania
- 5.30 **L. Wilson,** A. V. Kayumba, L. B. Mlingi, J. R. Jepsen, H. J. Limborg and J. U. Christiansen; "Integrated Occupational Health Service A Survey of Needs in Dar es Salaam, Tanzania". African newsletter on occupational health and safety. Vol. 16 no. 3, pp 62 66, December 2006
- 5.31 G. R. John, L. Wilson and E. Kasembe; "Motor Vehicle Emission Control via Fuel Ionization – FUELMAX Experience" A paper presented at the international conference on advances in engineering and technology (AET 2006), 16th – 19th July 2006, Entebbe Uganda
- 5.32 G. R. John, C. F. Mhilu, I. S. N. Mkilaha, M. Mkumbwa, W. Lugano, and O. Mwaikondela, 2006. "Prospects of High Temperature Air/Steam Gasification of Biomass Technology" A paper presented at the international conference on advances in engineering and technology (AET 2006), 16th 19th July 2006, Entebbe Uganda
- 5.33 L. Wilson, G. R. John and C. F. Mhilu; "High Temperature Air Gasification of Biomass – A Potential Biomass to Energy Conversion Technology for Tanzania" A paper presented at The National Renewable Energy Workshop – National Solar Energy Day – TASEA 2006
- 5.34 **L. Wilson** and Astrid Szogs; "Effective knowledge sharing: the Tanzanian Industrial Research and Development Organization as mediator between the foreign and local sector" KM4D Journal 2(1): 91-102, 2006 www.km4dev.org/journal
- 5.35 **L. Wilson** and G Magili; "Rural Household Energy Supply Problems in Developing Countries; The Case of Shinyanga Region in Central Tanzania" World Renewable

Energy Congress – VIII, August 28th – September 3rd 2004; Denver, Colorado – USA

- 5.36 L. Wilson and Eng. J. R. Gashaza "Transport and Vehicle Characteristics in the City of Dar es Salaam, Tanzania" Proceedings of the 23rd Southern African Transport Conference (SATC 2004), 12th 15th July 2004, Pretoria South Africa, pp. 413 420, ISBN Number: 1-920-01723-2 https://repository.up.ac.za/upspace/bitstream/2263/5677/1/Wilson_Transport(200 4).pdf
- 5.37 **Lugano Wilson** and Asifa P. Nanyaro; "Energy and Environment Services in Tanzania; Opportunities and Challenges for Tanzania Industrial Research and Development Organization (TIRDO)" Symposium on Technologies and Services to Industry (TIRDO silver Jubilee), 3rd April 2004, TIRDO
- 5.38 **L. Wilson** and Eng. T. Bwakea "Energy Conservation Opportunities in Tanzania's Transport Sector" Workshop on Energy Demand, Clean Development Mechanism (CDM), NEPAD and the Millennium Development Goals in East Africa, 22nd – 23rd November 2003, Nairobi Kenya
- 5.39 Sarah Lifa and **Lugano Wilson** "Appropriate Stoves for Batch Pasteurization of Milk" Workshop on Environment Impact of Milk Production and Processing Technologies in Tanzania: 24th 25th September 2003, Dar es Salaam Tanzania
- 5.40 G Magili and **L Wilson**; "Poverty Eradication Through Sustainable Rural Water Supply Systems; the Case of Shinyanga Region" Tanzania Development Forum, 24th – 25th April 2003, Dar es Salaam Tanzania
- 5.41 R. Nindie, L. Wilson and A. P. Nanyaro; "TIRDO Experiences on Energy Conservation Activities in Tanzania". Energy Conservation and Efficiency Seminar, 14th June 2002, Peacock Hotel, Dar es Salaam Tanzania
- 5.42 R. Nindie, **L. Wilson** and A. P. Nanyaro; "Energy Auditing for Dar es Salaam Water Supply Plants for Dar es Salaam Water Supply and Sewerage Authority (DAWASA)". Energy Conservation and Efficiency Seminar, 14th June 2002, Peacock Hotel, Dar es Salaam Tanzania
- 5.43 Lugano Wilson; "Currently Available Appropriate Technologies for Housing and Building Materials in East Africa"; International workshop-Development of Natural Polymers and Composites in East Africa: 25th – 27th September 2000, Arusha Tanzania
- 5.44 L. Wilson, John, G. R. and Mkilaha, I. S. N., "Aspects Affecting Urban Public Passenger Transportation in Dar es Salaam", Proceedings of The IET Seminar on Engineering for Sustainable Development, AICC, Arusha, pp. 83 - 95, December, 2nd - 3rd, (1999)
- 5.45 Various International workshop proceedings and web-based documents for the International Centre for Science and High Technology (ICS-UNIDO; Trieste, Italy) and for Tanzania Industrial Research and Development Organization (TIRDO)
- 5.46 **Lugano Wilson**; "Wood and Biocomposites as Engineering Materials"; International Workshop-Materials Selection and Design for Low-Cost Housing in Developing Countries: 16th - 20th November 1999, Trieste Italy
- 5.47 **Lugano Wilson**; "Factors Influencing Energy Use in Urban Transport Sector; A Case study of Dar es Salaam City"; M.Sc. Thesis, Department of Mechanical Engineering, University of Dar es Salaam, 1997
- 5.48 L. Wilson and G. R. John; "A Review of Physio-Thermodynamic Factors Influencing Fuel Consumption in Internal Combustion Automotive Engines"; Uhandisi Journal, University of Dar es Salaam, Vol. 21, No. 1, 1997, pp. 1- 22.)

6. Awards

- 6.1 Research Fellow (Coal Technology); Council of Scientific and Industrial Research, Central Institute of Mining and Fuel Research (CSIR-CIMFR), Digwadih Campus, Dhanbad - 828108, Jharkhand, India, January – April 2014
- 6.2 Marquis Who's Who in the World 30th Anniversary Listee, 2013; https://cgi.marquiswhoswho.com/OnDemand/Default.aspx?last_name=wilson&fir st_name=lugano
- 6.3 Research Fellow (High Temperature Gasification of Biomass); Division of Energy and Furnace Technology, Department of Materials Science and Engineering, Royal Institute of Technology (KTH), Brinellvägen 23, SE 100 44 Stockholm, Sweden. March 2006 – November 2010
- 6.4 Research Fellow (New materials); International Centre for Science and High Technology (ICS-UNIDO), Trieste Italy, Nov. 1999 July 2000

7.3 David Linus Linda, B.Sc. Environmental Engineering (Laboratory Analyst and EIA Expert)



DAVID LINDA – CV 2017

1. Personal Details

Full Name: Date of Birth: Nationality: E-mail: Mobile: David Linus Linda 25th July, 1983 Tanzanian davidflinus@gmail.com / davidflinus@yahoo.com +255 786 628806/+255 652 405060

2. Background and Key Qualifications:

David Linda is a registered graduate Engineer with registration number GE8402, registered by Engineers Registration Board (ERB). Also, Mr. Linda has been registered by the National Environment Management Council (NEMC) as an Environmental Expert with registration number NEMC/EA/0249 to conduct an Environmental Audit (EA) with specialization in Environmental Engineering and Water Quality Laboratory Technology.

He is currently working with the Energy and Water Utilities Regulatory Authority (EWURA), department of Water and Sanitation, in the post of "Water Quality Analyst/Water Engineer". Before joining EWURA in April 2016, Mr. Linda worked with Tanzania Industrial Research and Development Organization (TIRDO) as an "Assistant Research Officer" in the division of Environmental Technology, Occupational Health and Safety. He worked with TIRDO for a period of 8years, started in 2008 as Laboratory Technician until when he was further promoted after attaining his BSc in environmental engineering. He also worked with Shelys Pharmaceuticals Limited as a "Laboratory Technician" in 2007/2008. While with Shelys Pharmaceuticals Limited Mr. Linda was responsible for sample analysis in the Quality Control (QC) Laboratories, water and wastewater treatment at Reverse Osmosis Plant and Effluent Treatment Plant respectively.

Mr. Linda is the Environmental Consultant ENV Services Limited since 2013 to Date. He has been engaged by firms and registered individual environmental experts in conducting Environmental and Social Impact Assessment (ESIA) and Environmental Auditing (EA) of various projects and industries in and outside the country. In 2013/14 to 2014/15 Mr. Linda worked as a Tutorial Assistant to the Visiting Lecturer Dr. Lugano Wilson (+255 715 771056) with the module code - EL 447: Environmental Technology Laboratory at Ardhi University. He holds a BSc in Environmental Engineering from Ardhi University, Tanzania in 2013 and Full Technician Certificate (FTC) in Water Laboratory Technology from the Water Development and Management Institute (formerly, Rwegarulila Water Resources Institute), Dar es Salaam-Tanzania in 2007. He has a research interests in environmental theme with main focus on water and waste water treatment technologies, solid waste management, air pollution control systems design, renewable energies and mapping techniques for water, air quality and noise levels.

3. Recent Professional Work

Mr. **David Linda** has involved in various professional work with different individual experts, firms and Governmental organization as listed below;

A. WITH ENV SERVICES LIMITED

- 3.1 Environmental Impact Assessment at TPM Mpanda site, 2013 With ENV Services Ltd, Mr David Linda was involved in conducting EIA as air quality expert whereby he was responsible for measuring ambient air quality (Gaseous and dust as Suspended Particulate Matter) and noise levels. The study was done in collaboration with KASKIM COMPANY
- 3.2 Environmental Audit for Rhino Cement Factory-Mkuranga, Pwani, 2013 With ENV Services Mr **David Linda** was involved in conducting environmental audit whereby he was responsible for measuring ambient air quality (Gaseous and dust as Suspended Particulate Matter) and noise levels. The study was done in collaboration with ENATA
- 3.3 Environmental Impact assessment for the proposed Function Hall at Kunduchi, Dar es Salaam, 2013.

With ENV Services Mr **David Linda** was involved in conducting environmental assessment whereby he was responsible for measuring ambient air quality, vibration and noise levels. The study was done in collaboration with Mr. Fikrin Mtandika a registered environmental expert.

3.4 Environmental Impact assessment for the proposed warehouse construction at Julius Nyerere International Airport (JNIA); September, 2013.

With ENV Services Mr **David Linda** was involved in conducting environmental assessment whereby he was responsible for measuring dust as suspended particulate matter and noise levels. The study was done in collaboration with KASKIM Company Ltd.

3.5 Environmental Audit at Yeboyebo Factory Mkuranga Pwani; September, 2013. With ENV Services Mr **David Linda** was involved in conducting environmental audit whereby he was responsible for measuring Indoor air quality (factory gaseous emission and dust as suspended particulate matter) and noise levels. The study was done in collaboration with KASKIM Company Ltd. 3.6 Environmental Assessment to Karume Road Site (Tanzania Strategic Cities Project), Tanga 2013

With GMJ Limited Mr **David Linda** was involved in conducting environmental assessment whereby he was responsible for measuring ambient air quality (Gaseous and dust as Suspended Particulate Matter). The study was done in collaboration with ENATA

3.7 Baseline Environmental Assessment for a proposed quarry site at Msata, Bagamoyo, April, 2013

> With ENV Services Mr **David Linda** was involved in conducting environmental assessment whereby he was responsible for measuring ambient air quality (Gaseous and dust as Suspended Particulate Matter) and noise levels. The study was done in collaboration with Mr. Fikrin Mtandika, as NEMC-Registered Environmental expert.

3.8 Environmental Audit to TENG DA Footwear Company Limited-Mkuranga-Pwani, February, 2013

With ENV Services Mr **David Linda** was involved in conducting environmental audit whereby he was responsible for measuring generator and plant Gaseous and dust as Suspended Particulate Matter), Light and Noise levels at the factory. The study was done in collaboration with COSEP Company Limited.

3.9 Collecting Empirical data on the Efficiencies of Traditional Kiln Used In Kilosa and IBEK Kiln, February, 2013

With ENV Services Mr **David Linda** was involved in collecting the data. The empirical data collecting involved establishing

- Kiln's carbonization temperature
- Kiln gaseous emissions
- Dust particulate matter around the kiln
- Moisture content, ash content and calorific value of charcoal produced.
- 3.10 Baseline Environmental Assessment for a proposed Copper smelting plant by KASTAN Industries Limited, EPZA-Dar es Salaam, December, 2012.

With ENV Services Mr **David Linda** was involved in conducting environmental assessment whereby he was responsible for measuring ambient air quality (Gaseous and dust as Suspended Particulate Matter) and collecting soil samples. The study was done in collaboration with ENATA

3.11 Environmental Auditing to Wärtsilä Natural Gas Power Plants, Ubungo (102 MW) and Tegeta (45 MW) – **2012**

Mr **David Linda** with ENV Service Limited has involved in undertaking the environment auditing to the plants which is done as part of the mandatory semiannual auditing. The studies covers generator emissions, particulate matter evaluation, in-plant and peripheral noise level, water and wastewater analysis, soil analysis, coolant water analysis and in-plant light intensity. The study is done in collaboration with ENATA

- 3.12 Environmental Auditing to IPTIL Power Plants, Tegeta (100 MW) 2012 Mr David Linda with ENV Service Limited has involved in undertaking the environment auditing to IPTL. On quarterly basis, the environment auditing is undertaken to the IPTL plant as part of the mandatory auditing. The studies cover generator gaseous emissions, particulate matter evaluation, in-plant and peripheral noise level, water and wastewater analysis, soil analysis, and in-plant light intensity evaluation. The study is done in collaboration with ENATA
- 3.13 Environmental Audit at Bulamba Ginnery factory-Bunda, Msoma, Nov, 2012 With GMJ Limited Mr. **David Linda** was involved in an environmental Audit at the factory whereby he was responsible in assessing the factory noise levels, dust levels, generator gaseous emissions, boiler emission and ambient air quality.
- 3.14 Environmental Audit to 365 Airtel Communication Towers Covering 11 Regions of Tanzania; from July to September, 2012.

Mr **David Linda** with GMJ Ltd was involved in an environmental audit to 365 Airtel Communication Towers. The audit covered the Regions of Dar es Salaam, Dodoma, Kagera, Kigoma, Mara, Morogoro, Mwanza, Shinyanga, Singida, Tabora and Tanga. As part of this study's activities, he was responsible for assessing generator set gaseous emissions and noise level. The study was done in collaboration with COSEP Company Limited.

B: WITH TIRDO (GOVERNMENTAL BODY)

3.15 Undertaking Annual Environmental Studies at the Tanzania Cigarette Company Limited (TCC) from **2008 to Date**

Mr. **David Linda** as an employee of TIRDO in the division of Environmental Technology and Occupational Safety is involved in carrying out annual environmental monitoring (surveillance) at Tanzania Cigarette Company (TCC) for compliance and for occupational health and safety purposes. Particularly, he has involved in assessing boiler and generator emissions, dust level in the working area, factory noise level, heat exposure in kitchen and boiler house and factory wastewater and sludge analysis. The study is conducted guarterly a year (that is after every three months).

3.16 Undertaking Annual Environmental Studies at the Aluminium Africa Limited (ALAF) Mr. **David Linda** as an employee of TIRDO in the division of Environmental Technology and Occupational Safety is involved in carrying out annual environmental monitoring (surveillance) at Aluminium Africa Ltd (ALAF) for compliance and for occupational health and safety purposes. Particularly, he has involved in assessing Stack and generator emissions, dust level in the working area, factory noise level and factory water and wastewater. The study is conducted quarterly a year (that is after every three months).

- 3.17 Environmental Study at Serengeti Breweries Limited, **Dar es Salaam**, April, 2014 With TIRDO Mr. **David Linda** was involved in conducting environmental study at SBL. He was responsible in measuring the ambient gaseous emission and Particulate matter in the industry production areas and other factory premises
- 3.18 Environmental Study at Serengeti Breweries Limited, **Moshi**, May 2014 With TIRDO Mr. **David Linda** was involved in conducting environmental study at SBL. He was responsible in measuring the ambient gaseous emission and Particulate matter in the industry production areas and other factory premises
- 3.19 Environmental Study at Serengeti Breweries Limited, **Mwanza**, June, 2014 With TIRDO Mr. **David Linda** was involved in conducting environmental study at SBL. He was responsible in measuring the ambient gaseous emission and Particulate matter in the industry production areas and other factory premises
- 3.20 Environmental Study at Sao Hill Industries-Iringa 2010 and December, 2013 With TIRDO Mr. David Linda was involved in conducting environmental study at Sao Hill Industries. He was responsible in measuring the boiler gaseous emission and collecting water samples as well as analyzing the physical-chemical instu parameters and other non instu parameters were analysed at TIRDO laboratory
- 3.21 Environmental study at Tanga Cement Company, **Tanga** January,2009 With TIRDO Mr. **David Linda** was involved in conducting environmental audit at Tanga Cement Company. He was responsible in measuring dust, generator emission and noise levels at the factory
- 3.22 Environmental study/assessment at Ubungo power plant, **Dar es Salaam**, January 2009

With TIRDO Mr. **David Linda** was involved in conducting environmental study at Ubungo Power Plant. He was responsible in measuring the generator gaseous emission.

3.23 Environmental Study at Namtumbo Uranium Exploration Site Mkuju River project by MANTRA TANZANIA LIMITED , **Ruvuma**, August 2009

With TIRDO Mr. David Linda was involved in conducting environmental Study at Namtumbo Uranium Exploration *Site* He was responsible in assessing the dust level as TSP and PM10, where by the collected TSP in the filter paper were then taken for quantitative analysis of some metals at Southern and Eastern African Mineral Centre (SEAMIC). The study was requested by Ms Glory Ivera from OSHA.

3.24 Environmental study at CocaCola Kwanza, **Dar es Salaam** 2009 With TIRDO Mr **David Linda** was involved in the collection of waste water and conducting its quantitative analysis in terms of physical and chemical characteristics 3.25 Environmental study at Mwenge bus Terminal, May 2008 and October 2008 With TIRDO Mr. David Linda was involved in conducting environmental Study at at Mwenge bus Terminal He was responsible in assessing the gaseous emission form vehicles` exhaust pipes, the study which was requested by MSc. Student from Ardh University.

4. Education

- B.Sc. Environmental Engineering, at Ardhi University, Dar es Salaam, TZ, 2013
- 4.1 "FTC in Water Laboratory Technology" at Water Development and Management Institute (formerly Water Resources Institute), Dar es Salaam, Tanzania 2007
- 4.2 "O" Level; Nkansi Secondary School, Rukwa, Tanzania 2003.

5 Other Professional training

5.1 *Training on ISO/IEC 17025:2005* – *General Requirements for the competence of Testing and Calibration laboratories,* Apex Quality Management System partnership with Kenya Bureau of Standards (28th - 30th August 2008). Held at TIRDO offices, Dar es Salaam.

6. Technical Report Writings

- 6.1 Report on Industrial air quality assessment at ALAF factory March 2014 study. Report no. EOSDV-ALAF- 14-01, TIRDO Consultancy services.
- 6.2 Report on Environmental assessment for Kigoma Thermal Power Project in Kigoma Region. Report No. EOSD-TANESCO-KGM-15-01; TIRDO Consultancy services, October, 2015.

7 Languages

- 7.1 Swahili Very Good in Speaking, reading and writing
- 7.2 English Good in Speaking, reading and writing

8. Awards

- 8.1 Leadership award certificate as a minister of health, environment and accommodation at Water Resources Institute, Dar es Salaam; 2006/2007
- 8.2 Awarded a certificate for outstanding performance in Cleanliness and Discipline at Nkansi Secondary School- Rukwa, 2003.

7.4 Eng. Peter Kalist, B.Sc., Engineering (Inspector and EIA Epert)

Peter Kalist P. O. Box 35552, Dar es Salaam, Tanzania Telephone: + 255 754 788009, +255 784 788009 Email: <u>Peter Kalist@yahoo.com</u> Date of Birth: 23/10/1973 Marital Status: Married Nationality: Tanzanian

Management – Professional Profile

Results-oriented, ethical and self-driven Oil Products Safety, Health and Environment Champion of engineering background. Broad petroleum Safety, Health and Environmental risks analysis and reporting skills gained through working with multinational petroleum company for over nine years in different positions. Maintained track record of delivering significant, positive impact business results. High achiever in meeting objectives through personal commitment and teamwork.

Areas of Expertise

- Capability
- HSEQ Competence Assurance
- Safety and Transportation
- Permit –To- Work (PTW), Authorized Gas Tester
- Energy IsolationSafety Critical
- Equipment Bypass - Confined Space
- Working at Height
- Excavation
- Lifting Operation
- Control of ignition sources
- Personal Protective Equipment (PPE)
- Driving Safety

- Health
- Fitness to Work (FTW)
 - Health Risk Analysis (HRA)
- Chemical Exposure Monitoring and Health
- Hearing Conservation
- Substance Misuse
- Management of Fatigue
- Food and Water Safety
- Communicable diseases
- Process Safety and Asset Integrity.
- Process Safety information (PSI)
- Operating Procedures (OP)
- Management of Change (MOC)
- Process Hazard Analysis (PHA)
- Incident Management and Emergency Response
- Incident investigation and reporting
- Community Complaints Management

- Environment
- Air Mission Management
- Environmentally Hazardous substances (EHS).
- Environmental Impact Assessment (IAE)
- Hazardous Waste Management
- Waste Water Management
- Management of Change (MOC)
- Safe Operations (SOP)
- Contractor HSE Management

Emergency Preparedness and Response

Employment History

National Environment Management Council (NEMC)2014 to date

Registered as an Environmental Expert (Individual Expert) List of Clients served Since registered, none of served client has ever been dissatisfied with my professional services.

The list of served companies since 2014 to present include;

1. Health, Safety and Environmental Monitoring Consultant in Gas Exploration Activities in Ruvu river water basin, Ruvu Darajani village, Bagamoyo District, Pwani region in Tanzania. **Year:** October 2014 to June 2015; Client: Milembe Construction Company Ltd (MICOCO) and DODSAL Hydrocarbons Ltd, DSM.

Position Held: HSE Consultant

Activities Performed: Implementation and Monitoring for Occupational Health, Safety and Environmental issues in all activities performed by MICOCO in construction activities concerned to Gas Exploration and making sure that environment is not degraded and make sure that working environment is safe to all workers and visitors.

2. Health, Safety and Environmental Monitoring Consultant in Gas Exploration Activities in Fukayosi village, Bagamoyo district, Pwani Region in Tanzania.

Year: October 2014 to June 2015; Client: Milembe Construction Company Ltd (MICOCO) and DODSAL Hydrocarbons Ltd, DSM.

Position Held: HSE Consultant

Activities Performed: Implementation and Monitoring for Occupational Health, Safety and Environmental issues in all activities performed by MICOCO in construction activities concerned to Gas Exploration and making sure that environment is not degraded and make sure that working environment is safe to all workers and visitors.

3. Health, Safety and Environmental Monitoring Consultant in Gas Exploration Activities in Mdaula village, Bagamoyo district, Pwani region in Tanzania.

Year: October 2014 to June 2015; Client: Milembe Construction Company Ltd (MICOCO) and DODSAL Hydrocarbons Ltd, DSM.

Position Held: HSE Consultant

Activities Performed: Implementation and Monitoring for Occupational Health, Safety and Environmental issues in all activities performed by MICOCO in construction activities concerned to Gas Exploration and making sure that environment is not degraded and make sure that working environment is safe to all workers and visitors

4. Environmental and Social Impact Assessment on the Proposed Construction of Frontgate Luxury Eco Lodge at Arusha National Park, Songoro Ward, Arumeru District, Arusha Region.
Year: 2014; Client: Frontgate Lodge Holdings Ltd, DSM.
Position Held: ESIA Expert.

Activities Performed: Responsible for Prediction and analysis of Environmental and Social Impacts and ESIA report writing.4. Project name: Environmental Impact Assessment of three fuel station located in Igoma-Mwanza, Mkuyuni-Mwanza and Kahama-Shinyanga; Client: PetroAfrica (T) Ltd)

5. Project name: Environmental Audit of Victoria service station along Nyerere road in Kinondoni municipality, Dar es salaam, 2015

6. Project name: Environmental Audit of six service stations.

Client: Tawaqal and Co(1995) Ltd, 2014

Occupational Safety and Health Authority (OSHA) June 2013 to date

Industrial Hygiene private Inspector - Reporting to the Chief Inspector OSHA.

Engen Petroleum (T) Limited June 2011 to June 2013

HSEQ Coordinator - Overseeing Engen Healthy, Safety, Environment & Quality Policy

Reporting to the Managing Director Engen Petroleum (T) Limited.

- To provide Engen Petroleum (T) Ltd HSEQ performance data for review by management.
- To provide the status report of the Engen Petroleum (T) Ltd Management system matrix for review by management and to recommend changes to the HSEQ Management system with the committee.
- To submit the status of audit reports for review by Management and to make recommendations on the necessary directives and resources to correct deficiencies for continual HSEQ improvement
- To provide a register of incidents for review and follow up investigation reports and recommended actions to prevent recurrence
- To provide minutes of the departmental HSEQ Committee meetings for review to and provide input thereto
- To coordinate and collate the submission of HSE MS self-assessments by Element Champions for review
- To coordinate and collate the submission of HSEQ inspection reports by management team members for review at meetings
- To ensure emergency response procedures are drawn up and updated per site and that drills and drill-reports are institutionalized
- To seek and update the company records on HSE Legislation
- To provide input to updating the HSE MS Manual
- To update the TOP 20 Risks file with input from risk owners
- To provide the HSEQ Standards, procedures and manuals for review
- To promote HSEQ awareness in the business through Toolbox discussion and monthly communications to all staff.
- To ensure prescribed PPE is worn by individuals visiting and working in the tank farm area of every facility
- To coordinate data for HSEQ monthly reporting
- To implement the environmental Management Standards
- To ensure that all contractor HSE requirements (element 1 to 7) are in place and quarterly contractor HSE meetings are held

- To source for training programs to fulfil the training requirements as per the Engen Petroleum (T) Ltd HSEQ Training Matrix
- Administer the execution of the employee health program
- To provide general guidance on any HSEQ related matter in the workplace.
- Regularly audit operations for HSE compliance and continuous improvement against key performance indicators and provide feedback to management.
- Develop and practice hazard identification, evaluation and control procedures.

Chevron Tanzania Limited April 2010 to 31st May 2011

Business Consultant – Overseeing Country Sales and Reporting (Tanzania)

Reporting to the District Sales Manager – Zimbabwe, Zambia, Malawi and Tanzania. I was recruited to oversee the Fuels Sales and Marketing in Tanzania, following resignation of the Country Chairman in March 2010.

The country governance was handled over to Finance Manager and all sales responsibility to DSM based in Johannesburg South Africa.

Currently responsible for pricing of petroleum fuels, forecasting of imports, stocks data analysis and reporting.

Also accountable for fuels sales and profitability; and maintenance of customer services & support.

Chevron Tanzania Limited

May 2007 to March 2010

Business Consultant – Commercial and Industry Tanzania

Promoted to this position to assist the Country Chairman Fuels sales to Commercial Accounts. Responsible for commercial business development, business proposals preparation and contracts negotiations. Performed business analyst role for the Country Chairman including preparation of different monthly business reports such as Forecasting, Weekly Prices Analysis and Monthly Business Review report.

Also maintained focus in sales and customer service to Northern Tanzania customers.

Some specific duties included:

- Credit Management
- Customer Relationship Management
- Overal Territory Management
- Profitability Management
- To Take initiative in preventing and resolving problems

Chevron Tanzania Limited

January 2006 to May 2007

Loss Prevention System (LPS) Country Core Team Member - Tanzania

This was a new position created following the merger between Chevron and Texaco to ensure the organisation's safety, efficiency and reliability performance metrics are improved to the World Class Level. Reporting to East Africa LPS Manager, the position was responsible for rollout and tracking execution of Chevron Global Loss Prevention System in Tanzania. The position expanded by analytical and reporting skills. Some of the specific duties were:

- Deploy LPS in Tanzania, train LPS & coach all staff in Tanzania on LPS
- Ensure Chevron Tanzania Limited employees utilize LPS tools to improve upon reliability, efficiency and safety metrics set globally.
- Lead Chevron Tanzania Limited to insure that safety is managed as a core value and top priority.
- Collaborate with other Team Members across Africa to improve Africa's use of Near Loss/ Loss Investigation tools from both a quantity and quality perspective
- Carryout all accidents and business loss investigations in Tanzania and report

Simba Plastics Company Limited

July 2001 – December 2005

Quality Assurance Manager and Acting Principal Safety Officer

Recruited in this position to ensure Simba Plastic Operations are safe, clean and reliable.

Some of the specific duties included:

- Develop inspection procedures and reporting format for all incoming goods
- Develop standard processing parameters for each product
- Visiting Customers and hear their satisfactions or changes or complaints and find the solutions
- Coordinate implementation of ISO 9001
- Develop testing procedures for new products and finished products

Wood Plus Tanzania Limited

<u>Sales Manager</u>

Recruited in this position to coordinating all Sales and Marketing activities, setting and achieving sales targets, compiling and submitting daily and weekly sales report, creating distribution channels and maintaining sales contacts, build and motivate sales team, handles escalated customer complaints and lastly producing monthly sales plan.

Breweries Tanzania Limited Temporary Assignment in Dar es Salaam Plant

August 2000 – October 2000

Recruited to monitor water quality and waste minimizations

Education & Training

November 2000 – July 2001

Year	Institution	Award
2000	University of Dar es Salaam	Bachelor of Science Engineering
1995	Same High School	Certificate of Advanced Secondary Education
1992	Lyamungo Secondary School	Certificate of Secondary Education
1988	Primary School	Certificate of Primary Education

On Job Recognition and Award:

Year	Type of Award	Awarding Institution
2008	Overall Country High Performance Award	Chevron Tanzania Limited

Other Professional Development Courses Attended:

Year	Training Title	Organizing Institute / Place
2013	Registered EIA Expert	NEMC
2013	OSHA Industrials Hygienist	OSHA
2011	HSSE Competence and	PROWALCO
	Development	
2008	Petroleum Products Knowledge	Chevron Global Workforce Development
2007	Presentation and Reporting Skills	Chevron Global Workforce Development
2006	Loss Prevention System	Chevron South Africa
2005	Myers Briggs	Sumaria Group
2004	Finance for Non-Finance Managers	Sumaria Group
2003	Situational Leadership Course	Sumaria Group

7.5 Gilbert K. Grid, B.Sc., Environmental Laboratory Science and Technology

1: PERSONAL INFORMATION

First Name: Gilbert Second Name: Grid Nationality: Tanzanian Birth Date: 22nd July 1987 Marital Status: Single Gender: Male P. O Box 22125 Dar es Salaam, Tanzania Mob: +255 679 97 22 80 E-mail: gridkibanda@gmail.com

2: EDUCATION BACKGROUND

2010 -2014:	Ardhi University
	Bachelor in Environmental Laboratory Science and Technology
2007-2009:	Sengerema Boys High School
	Advanced Certificate of Secondary Education
2003-2006:	Kashozi Secondary School
	Certificate of Secondary Education
1986- 2002:	Kaazi Primary School Primary Certificate

3: FIELD EXPERIENCE

July – August, 2013:

Industrial Training at: ESTATE UVERSITY OF DAR-ES-SALAAM Position: Environmental Engineer. Responsibilities:

- ✓ Plumbing design for residential house by using AutoCAD Software.
- Design and Engineering drawings using Auto CAD for water supply and waste water collection during the extension of health center Dispensary Building at University of Dar es Salaam (UDSM)
- Design and Engineering drawings using Auto CAD for Septic tank, Manhole and Soak way pit for waste water redesign system at University of Dar es Salaam (UDSM)
- Preparation of Beal of quantity (BOQ) for Septic tank and Soak way pit redesigned system at university of Dar es Salaam (UDSM).

July - August, 2012:

Industrial Training at: TANZANIA BUREAU OF STANDARDS (TBS) Position: Standard Secretary Assistance Responsibilities:

- ✓ To Study standardization systems
- ✓ Collecting essential data for formulation of standards
- ✓ Drafting standards after reading different essential data source and OSHA temperate
- ✓ Reviewing drafted standards
- ✓ To participate in secretary technical committee with our supervisor sister Rose

July -August, 2011:

Industrial Training at: LEVEMP-BUKOBA DISTRIC Position: Laboratory technologist. Responsibilities:

✓ Analysis of various physical, chemical and biological parameters for wastewater and clean water samples.

- ✓ Reagent preparation
- ✓ Sample collection, handling and preparation for various analysis

4: WORKING EXPERIENCE

4 years working experience at Environmental Services Limited as Environmental Auditor. Dealing with

- ✓ Taking measurements of gases and dust emissions in the working place mostly in the industries, roads and indoor by using different environmental measuring instruments and taking coordinates of the specified area by using GPS.
- ✓ Taking measurements of light intensity, vibration, noise and ventilation at different places
- ✓ Sampling of water discharged from the industry and soil around the industry due to the area of interest.
- Analysis of water and soil according to the client demand.
 Advice to the industry workers on the use of PPE (PERSONAL PROTECTIVE) EQUIPMENT)
- Report writing of Environmental Auditing and Environmental Impact Assessment.

5: RECENT PROFFESIONA L WORK

Am involved in various professional works with ENV Services Limited in EIA and EA. In the list of work below am involved as the expert of Environmental Impact Assessment (EIA) and others am involved as the expert of Environmental Audit(EA) by taking measurement of gases, dust, vibration, noise and meteorological data, and then doing Data analysis and Report writing.

- ✓ Occupational hygiene monitoring for Tanzania Cigarette Company Limited 20, Nyerere Road, P. O Box 40114, Dar-es-salaam Tanzania: November 2017
- ✓ Boiler gaseous emission assessment for Tanzania Distilleries, P. O. Box 9412, Mbozi Road, Distilleries Building, Chang'ombe, Dar es Salaam, Tanzania: November 2017
- ✓ Environmental Impact Assessment for a Proposed Wind Farm in Nala Area, Dodoma Municipality, Tanzania: November 2017
- ✓ Initial Environmental Audit to the Kifaru Quarry Company Limited (Nyange Plant), located in Mwanga district, Kilimanjaro Tanzania: June 2017
- ✓ Biogas Analysis for Tanzania Breweries Limited, P. O. Box 2013, Dar es Salaam: May 2017
- ✓ Initial Environmental Audit (Air Quality) to the Tilisho Petrol Stations, Rombo district, Kilimanjaro region for Valerian Hugo Shirima, P. O. Box 103, Rombo, Kilimanjaro, Tanzania: May, 2017
- ✓ Environmental study at ASPAM Energy (T) Limited Tank Farms, P. O. Box Temeke District, Dar es Salaam Region, Tanzania: March 2017
- ✓ Environmental Audit for Jiangxi Geo-Engineering (Group) Corporation Tanzania Strategic Cities Project (IDA Credit No. 5460-TZ) Package 4: Upgrading of Unga Ltd -Muriet Road & Burka Burka Bridge, Extension of Bondeni Storm Water Drain & Addition of One Cell at Muriet Landfill; Contract No.LGA/003/2015-2016/W/49, Arusha City, Tanzania: Feb. 2017
- ✓ Environmental assessment: Vita Foam Factory, Nyakato industrial area, Mwanza Tanzania: November 2016
- ✓ Environmental study at Edward Michand's Health Centre incinerator, 2016
- ✓ Environmental auditing for Coca cola Kwanza ltd, Dar es salaam plant , 2016
- ✓ Environmental audit study at Tanzania Breweries Limited, Dar es salaam plant, 2016
- ✓ Environmental baseline and audit study for existing and new feed mill plant at Silverlands Tanzania Ltd. Makota Farm. Iringa district. Iringa region: 2016
- ✓ Environmental audit for Nyati cement factory hot flue stacks
- ✓ Environmental audit study for clinker cement factory plant, Tanga plant; 2016
- ✓ Environmental audit for lime factory, Rhino plant, Tanga plant; 2016
- ✓ Initial environmental study for the construction and operation of sawmill facility in Nanjirinji 'A' village, Nanjirinji ward, Kilwa district, Lindi region; 2016.

- ✓ Baseline environmental audit of the existing mini-hydroelectric power plant and diesel generators and new proposed plant at Mngeta farm in Mngeta village, Mchombe ward, Kilombero district, Morogoro region, Tanzania; 2016
- ✓ Environmental audit study for Kilombero Sugar Company Limited incinerator
- ✓ Environmental assessment study for lime stone mine site in Mtwara region; 2016
- Roadside air quality and noise study for Arusha and Kilimanjaro region covering Tengeru, Boma Ng'ombe, Moshi, Himo and Holili stations; 2016
- ✓ Contract EA/TZ/CON/2015/06 research on the economic analysis of improved firewood cooking stoves (ICS) and its implication on livelihoods and environmental sustainability, Dec 2015
- ✓ Baseline environmental study for the proposed Dar es Salaam port expansion/modernization project, Dec 2015
- ✓ Baseline environmental study for 130 million litres per day water treatment plant construction works for DAWASA, upper Ruvu, Dec. 2015
- Environmental audit study for World Oil terminal in Kigamboni Dar es Salaam, Tanzania, Jan. 2016
- ✓ Environmental audit study for GAPCO Kurasini petroleum terminal, Dar es Salaam Tanzania, Jan. 2016
- ✓ Environmental baseline study at the proposed GAPCO petroleum filling station at Uyole, Mbeya Tanzania, Dec 2015
- ✓ Mombasa (Kenya) Kipevu II power plant (74.5 MW) environmental audit, July, Dec. 2014
- ✓ Environmental auditing to AM Steel & Iron Mills Ltd, Jan 2015
- ✓ Stack emission and hot flue particulate matter (PM) assessment to lake cement factory, Kimbiji village, Dar es Salaam , Dec, 2014
- ✓ Environmental and social impact assessment (ESIA) of the proposed extension and rehabilitation of existing Aga Khan Hospital in Dar es Salaam, Tanzania, Nov. 2014
- ✓ Environmental auditing to TANICA instant coffee plant, Nov. 2014
- Environmental auditing study to Engen petrol stations and petroleum fuel depots located in Dar es Salaam, Arusha, Mwanza and Kigoma, July, 2014
- ✓ Environmental audit study for Serengeti Breweries Limited, Mwanza Tanzania, September,2014

6: COMPUTER SKILLS:

Microsoft Office Application (Microsoft excel, Microsoft word plus others), Internet & email Application, Computer Aided Design (AutoCARD, EPANET, SEWERCARD, ArcGIS and ArchiCARD

7.6 Yohana Marco Lameck B.Sc., Environmental Laboratory Science and Technology

1. PERSONAL INFORMATION

Names:	Yohana Marco Lameck	
Sex:	Male	
Date of Birth:	20th May 1988	
Place of Birth:	Singida Region	
Nationality:	Tanzanian	
Maritial Status:	Single	
Address:	P. O. Box 1070 Ngimu-Singida	
Email Address:	yohanamarco@live.com	
Telephone:	Phone: +255692 826 252/+255757 961 166	

2. EDUCATION BACKGROUND

2010-2014	Ardhi University, Dar es Salaam, Tanzania	
	Bachelor of Science in Environmental Laboratory Science and Technology	
2008-2010	Minaki secondary school, Coast Region, Tanzania	
	Advance Certificate of Secondary Education (ACSEE)	
2004-2007	Ngimu Secondary school, Singida, Tanzania	
	Certificate of Secondary Education(CSEE)	
1997-2003	Ngimu Primary School,	
	Singida, TANZANIA	

3. SHORT COURSES ATTENDED AND AWARD PROVIDED

YEAR	COURSE	PLACE	AWARD
2013	Chemical accident prevention and preparedness programme for Tanzania	University of Dar es Salaam	CERTIFICATE

4. KEY QUALIFICATIONS

QUALIFIED AND PROFESSIONAL IN ENVIRONMENTAL LABORATORY WITH KNOWLEDGE IN:

- Environmental planning and Impact Assessment
- Environmental Auditing
- Water and wastewater analytical laboratory
- Water and wastewater management
- Solid waste management
- Air and Noise analytical laboratory
- Environmental ecology
- Knowledgeable in Application of software such as AutoCAD, Arch CAD
- Laboratory design
- Laboratory Organization and Safety
- Instrumental method of analysis
- Laboratory microbiology
- Laboratory biotechnology

5. WORKING EXPERIENCES	
2011 November to Date	ENV Services Itd, Dar es Salaam
Responsibilities/Duties:	 Air and Noise level analysis
	 Water, wastewater and Soil
	sampling and analysis
	Data collection analysis
	Environmental Impact Assessment
	and Environmental Auditing
	Written a technical report
2013 July-Sept 2013	Industrial Training(8weeks)
Place	Env Services Itd.
Responsibilities/Duties	Data collection and analysis
-	Air and Noise level analysis
	Water and wastewater analysis
	Soil analysis
	Written a technical report
2012 July – 2012 Sept	Industrial Training(8weeks)
Place	Ardhi University – Dar es Salaam
Responsibilities/Duties	Research on the treatment of dye
-	rich wastewater by using the
	column vertical flow system by
	means of the different materials
	media such as sand, activated
	carbon (Charcoal), etc.
	 Laboratory analysis of the different
	parameters such as COD, Colour,
	etc.
	Reporting writing
2011 July – Sept 2011	Industrial Training(8weeks)
Place	HAPA-Singida
Responsibilities/Duties	 Data collection through interviews,
	questionnaires and observation
	method on sanitation as a means
	of promoting health through
	prevention of human contact with
	the hazards of wastes.
	Analysis and interpretation of the
	collected data from field
	Report writing and
	recommendation

6. GENERAL INFORMATION

Other Skills

- Microsoft office (Word, Excel, Power point, Access and Publisher) •
- Capable of speaking English and Kiswahili •
- Able to work under minimum supervision and achieve good results.Able to work inter dependently. A critical thinker with strong analytical skills
- Able to receive instructions, learn and cooperate with others in the organization/company
- Able to behave in a manner that will strengthen organizational relationship •

8. EQUIPMENT CAPABILITIES

ENV Services Limited has acquired and maintained up to date and professional equipment, which are necessary for carrying out its activities. Furthermore, there are vans for ferrying materials to and from the sites. Subletting is widely adopted to augment the firm's capacity in peak demand periods. Some of the available equipment are detailed in Table 10.1.

Table 10.1: Technical equipment owned

ITEM OF EQUIPMENT	DESCRIPTION, MAKE, AND AGE (YEARS)	CONDITION (NEW, GOOD, POOR) AND NUMBER	OWNED, LEASED OR TO BE
Chemicals warehouse	72 square meters		PURCHASED Owned
	 Refil gases (R-12, R22, 	One (good)	Owned
Laboratory with various maintenance facilities	R134a) Vacuum pump Pipe bender Manifold (pressure) gauge Welding Machines Clamp on multimeters Compressor Drilling machine Grinder Oxy-acetylene gas	Good	Owned
Welding machines	Make: Magmaweld	New	Owned
Vehicles	Make: Various Models: Various	New/used	Owned
Hot flue stack sampler for dust particulate matter (PM) and gases	Make: Vayubodhan Model: VSS1	New	Owned
Portable biogas detector: CH4: 0-100%vol with IR; CO2: 0-100 %vol with IR; H2S: 0- 2000 ppm	Model: SAZQ	New	Owned
PM _{2.5} /PM ₁₀ Particulate Counter	Make: CW Model: HAT200S	New	Owned
Microdust Pro Dust Monitoring Kit	Make: Casella® Model: 176000A	New	Owned
Combustion gas analyzer	Make: TESTO Model: 350M/XL	New	Owned
Combustion gas analyzers	Make: KANE Model: 900	New	Owned
	Make: TESTO Model: 350 M_XL	New	Owned
Vibration Meter/Datalogger	Make: XTECH Model: SDL800	New	Owned

ITEM OF EQUIPMENT	DESCRIPTION, MAKE, AND AGE (YEARS)	CONDITION (NEW, GOOD, POOR) AND NUMBER AVAILABLE	OWNED, LEASED OR TO BE PURCHASED
Draeger Tube pumps (+Detector tubes)	Make: Accuro Model: 4056443	New	Owned
Noise meter	Make: Clas Ohlson Model: ST-805	New	Owned
Light meter	Make: Clas Ohlson Model: ST-1300	New	Owned
Digital air flow meter with CFM, BTU, temperature, humidity, DP, FPM, MPH, KPH, MPS, knots and wet bulb	Make: General Model: WDCFM8912	New	Owned
Humidity and temperature datalogger	Make: Terminator Model: ST 172	New	Owned
Thermometer with 4 channels	Make: Lutron Model: TM-946	New	Owned
Water PH, TDS, salinity, conductivity and temperature	Make: Oakton Model: Testr 35	New	Owned
Power quality analyzer data logger	Make: Chauvin Arnoux Model: CA 8334	New	Owned
Electrical meters for measurement of power kVA, kVAr, kW, kWh and cos φ	Make: Fluke Models: Various	New	Owned
Electrical, electronic and mechanical tools and accessories	Make: Various Models: Various	New	Owned
Portable Oscilloscope	Make: AEMC Models: 7102-CK 100	New	Owned
Tachometers, contact and non-contact	Make: Terminator Model: AT 8	New	Owned