

# **Zambia Water Forum and Exhibition (ZAWAFE)**





WATER, SANITATION AND SUSTAINABLE DEVELOPMENT GOALS: WHAT IS ZAMBIA DOING?"

# **PROGRAMME**

Venue: Mulungushi International Conference Center 12th - 13th June, 2017





































### ZAMBIA WATER FORUM AND EXHIBITION=

# **ORGANISED BY:**

Ministry of Water Development, Sanitation and Environmental Protection (MWDSEP)

- The University of Zambia, Integrated Water Resources Management Centre (UNZA IWRM)/Zambia Water Partnership (ZWP)
- National Water Supply and Sanitation Council (NWASCO)
- Water and Sanitation Association of Zambia (WASAZA)
- Lusaka Water and Sewerage Company (LWSC)
- Devolution Trust Fund (DTF)
- Water Resources Management Authority (WARMA)
- GIZ Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) **GmbH**
- BGR/ GReSP Groundwater Resources Management Support Programme
- Drillers Association of Zambia (DAZ)























# TABLE OF ORGANISING COMMITTEE MEMBERS

	Name	Seconding Institution
1	Prof. Imasiku A. Nyambe (Chairperson)	UNZA Integrated Water Resources Management Centre/ZWF
2	Mr. Jonathan Phiri	Water and Sanitation Association of Zambia
3	Ms. Josephine Goma	National Water Supply and Sanitation Council
4	Mr. Chrispin Lukwanda	National Water Supply and Sanitation Council
5	Mr. Kasenga Hara	National Water Supply and Sanitation Council
6	Mr. Cosam Siwale	National Water Supply and Sanitation Council
7	Ms. Victoria Ngwenya (Secretary)	National Water Supply and Sanitation Council
8	Mr. Victor Muyeba	Devolution Trust Fund
9	Ms. Mutinta Diangamo Lwando	Ministry of Water Development, Sanitation and Environmental Protection
10	Ms. Mwiche Musabaila	Lusaka Water and Sewerage Company
11	Mr. Nshamba Muzungu	Lusaka Water and Sewerage Company
12	Ms. Adjoa Parker	BGR/ GReSP-Groundwater Resources Management Support Programme
13	Ms. Violet Mkandawire	Water Resources Management Authority
14	Ms. Lucy Chibwe	Water and Sanitation Association of Zambia
15	Ms. Tuseko Sindano	GIZ Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH
16	Mr. Christopher Chilongo	Drillers Association of Zambia
17	Mr. John Tembo	Zambia Environmental Management Agency
18	Mr. Micheal Museba	Ministry of Water Development, Sanitation and Environmental Protection
19	Ms. Lolelanji Sakala	IHS Towers
20	Ms. Mpunga Simukwai	National Water Supply and Sanitation Council
21	Rose Temno	National Water Supply and Sanitation Council





















# **PROGRAMME**

The Programme is scheduled for 2 days ( $12^{th} - 13^{th}$  June 2017). The Programme will encompass keynote speeches, plenary sessions, three parallel breakaway sessions on the first day and two sessions on the second day, exhibitions and a field trip within Lusaka City. Field trips within and outside Lusaka City will take place on 13<sup>th</sup> June and 14<sup>th</sup> June 2017 respectively. More details can be found in subsequent sections.

I thank you all.

Professor Imasiku Anayawa Nyambe Chairperson, ZAWAFE























# ZAMBIA WATER FORUM AND EXHIBITION=

			DAY 1: Monday 12 <sup>th</sup> June 2017		
Time	Event:				
00:80	Registration of Participants				
08:30	Entertainment Drama performance				
08.45	Opening Remarks Chairperson Prof. Imasiku A. Nyambe	Imasiku A	Nyambe		
08:55	Remarks from the Representative of the Cooperating Partners	Cooperat	ng Partners Michal Kielar-CDC		
09:15	Dr. Bishop Ed Chomba PS to invite the Guest of Honor	uest of Ho	nor		
09:25	Official Opening: Minister of Water Development, Sanitation and Environmental Protection Honorable Lloyd Mulenga Kaziya, MP	relopment	, Sanitation and Environmental Protec	tion Hon	orable Lloyd Mulenga Kaziya, MP
10:00	Group Photo, Tour of exhibition stands led by <b>The Minister of Water Development, Sanitation and Environmental Protection</b>	ed by <b>The</b>	Minister of Water Development, Sanit	ation and	Environmental Protection
10:30			Health Break		
11:00	ROOM 2 Main Hall: Keynote Paper: Water, Job creation, industrialization and SDGs implementation in Secretary of the Global Water Partnership (GWP) Southern Africa and Head of GWP Africa Condination Unit	:: Water,	Job creation, industrialization and SD Southern Africa and Head of GWP Afri	Gs implem	Main Hall: Keynote Paper: Water, Job creation, industrialization and SDGs implementation in Africa. Alex Simalabwi - Executive fithe Global Water Partnershin (GWP) Southern Africa and Hend of GWP Africa Condination Unit
11:25	Room 2: Focused Session: 11:25	11:25	Room 1: WWF Focused Session: 11:25	11:25	Room 3: Focused Session: SASSCAL Water
	Institutional framework for Water		Sustainable wetland management:		research contributing towards sustainable
	Supply and Sanitation		monitoring the health status of		development of Southern African
			freshwater ecosystem goods and services		
11:30	Framework for Provision and	11:30	Collective Wetland Ecosystem	11:30	An overview on SASSCAL water research for
	Regulation of Urban Onsite Sanitation		Health Monitoring: The Kafue Flats		improving the livelihood of people in Southern
	and Rural Water Supply and		Status Report Monitoring the Blue		Africa - Helmschrot et al.
	Sanitation in Zambia - <i>Peter Mutale</i>		Heart of Zambias Economy - <i>Mrs.</i> <i>Chanda M. Kumwenda</i>		
11:50	Options to improve Enforcement of 11:50	11:50	5-member Panel discussion with	11:50	Flood extent trends, forest cover changes and
	the Public Health Act in Public Health		panellists drawn from monitoring		their implications on agricultural and fisheries





















development of the Kafue Flats Status report, i.e. the Department of National Parks and Wildlife, WARMA, Department of Fisheries, 12:10  12:20  WWF Session Conclusion  12:30  WWF Session Conclusion  12:30  WWF Session Conclusion  12:30  Water Resource Development for Socio-economic development for Socio-econo		& Hygiene, especially in the area of		institutions that contributed to the		activities in the Barotse Floodplain, Upper
Session Discussion and Conclusion  12:30		sanitation - Imuwana Mwanamwalye		development of the Kafue Flats		Zambezi Basin. Henry Zimba¹, Banda Kawawa¹,
Session Discussion and Conclusion  Session Discussion and Conclusion  Session Discussion and Conclusion  Session Discussion and Conclusion  Sanitation Programme  Sanitation Speech (5 min/: Town Clerk Welcome and overview of LWSC (10 min)  Welcome and overview of LWSC and its mandate  In the LMS Concerning to the Water and Sanitation situation within the Lusak mandate  In sight into the Water and Sanitation situation within Lusak and the Lusak and		and Conrad Thombansen		Status report, i.e. the Department		Anthony Chabala <sup>1</sup> , Wilson Phiri <sup>1</sup> , Peter Selsam <sup>2</sup> ,
Session Discussion and Conclusion  Session Discussion and Conclusion  Session Discussion and Conclusion  Session Discussion and Conclusion  12:30				of National Parks and Wildlife,		Markus Meinhardt² Imasiku Nyambe¹
Session Discussion and Conclusion  Session Discussion and Conclusion  Room 2: Focused Session: Lusaka Sanitation Programme Sanitation Programme  • Engagement/ involvement of LCC within the LSP Welcome and overview of LWSC and its mandate  • Insight into the Water and Sanitation situation within Lusaka  • Insight into the Water and Sanitation situation within Lusaka  • Insight into the Water and Sanitation situation within Lusaka  • Insight into the Water and Sanitation situation within Lusaka  • Insight into the Water and Sanitation situation within Lusaka  • Insight into the Water and Sanitation situation within Lusaka  • Insight into the Water and Sanitation situation within Lusaka  • Insight into the Water and City Waste: The Case of Churaa				WARMA, Department of Fisheries,		
Session Discussion and Conclusion  Room 2: Focused Session: Lusaka Sanitation Programme Sanitation Programme  • Engagement/ involvement of LCC within the LSP Welcome and overview of LWSC and its mandate  • Insight into the Water and Sanitation situation within Lusaka  • Insight into the Water and Sanitation situation within Lusaka  • Insight into the Water and Sanitation situation within Lusaka  • Insight into the Water and Sanitation situation within Lusaka  • Insight into the Water and Sanitation situation within Lusaka  • Insight into the Water and Sanitation situation within Lusaka  • Insight into the Water and Sanitation situation within Lusaka  • Insight into the Water and Sanitation situation within Lusaka  • Insight into the Water and Sanitation situation within Lusaka	12:10		12:10	ZESCO and Birdwatch Zambia.	12:10	Concentration and distribution of physio-
Session Discussion and Conclusion  Sanitation Programme Sanitation Programme  • Engagement/ involvement of LCC within the LSP whelcome and overview of LWSC and its mandate • Insight into the Water and Sanitation situation within Lusaka • Insight into the Water and Session Discussion Di						chemical parameters in Makoye reservoir and
Room 2: Focused Session: Lusaka Sanitation Programme  • Coverview of LCC and mandate • Coverview of LWSC and its mandate • Insight into the Water and Sanitation within Lusaka • Insight into the Water and Sanitation situation within Lusaka • Insight into the Water and Sanitation situation within Lusaka • Insight into the Water and Sanitation situation within Lusaka • Insight into the Water and Sanitation situation within Lusaka • Insight into the Water and Sanitation situation within Lusaka • Insight into the Water and Sanitation situation within Lusaka • Insight into the Water and Sanitation situation within Lusaka • Insight into the Water and Sanitation situation within Lusaka		Session Discussion and Conclusion				implications of livestock east of Monze, Zambia-
12:30   WWF Session Conclusion   12:30   Property						Manoah Muchangala
Room 2: Focused Session: Lusaka Sanitation Programme Sanitation Programme  • Coverview of LCC and mandate • Coverview of LWSC (10 min) • Overview of LWSC and its mandate • Insight into the Water and Sonitation situation within Lusaka • Insight contamination of Contamination of Groundwater by 14:40    Contamination situation situation within Lusaka Sanitation situation situation situation within Lusaka Sanitation situation within Lusaka	12:30		12:30	WWF Session Conclusion	12:30	A novel satellite-based EF-NDVI feature space for
Room 2: Focused Session: Lusaka Sanitation Programme Sanitation Programme  • Overview of LWSC and its mandate • Insight into the Water and Sanitation situation within Lusaka • Insight into the Water and Sanitation situation within Lusaka • Insight can be session:  Room 1 DWRD Focused Session:  Water Resource Development for Socio-economic						retrieving root zone soil moisture in semi-arid
Room 2: Focused Session: Lusaka Sanitation Programme Sanitation Programme  Sanitation of LWSC and where and some of LWSC and which into the Water and some of LWSC and where and some of LWSC and where and some of LWSC and which into the Water and Sonitation situation within Lusaka  Room 1 DWRD Focused Session: Water Resource Development for Socio-economic development for						areas. K. Phiri, E. Nyirenda, I. A. Nyambe, K. E.
Room 2: Focused Session: Sanitation Programme Sanitation Programme  • Engagement/ involvement of LCC within the LSP Welcome and overview of LWSC and its mandate • Insight into the Water and Sanitation situation within Lusaka • Insight contamination of Ground Agency (Clorupa Sanitation situation within Lusaka Sanitation situation within Lusaka Sanitation situation within Lusaka Sanitation situation within Lusaka Clorupa and contamination of Groundwater by 14:40  Sanitation Specific Science Session: Water Resource Development for Socio-economic developme						Banda, J. Helmschrot
Sanitation Programme Water Resource Development for Socio-economic development for Socio-economic development for Socio-economic development for Socio-economic development Socio-economic development for Socio-economic develop				FUNCH		
Sanitation Programme  Sanitation Programme  Welcome Speech (5 min): Town Clerk  • Overview of LCC and mandate  • Engagement/ involvement of LCC  within the LSP  Welcome and overview of the session  • Overview of LWSC (10 min)  • Overview of LWSC and its mandate  • Insight into the Water and Sanitation situation within Lusaka  • Insight care of Contamination of Groundwater by 14:40  City Waste: The Case of Churaa	14:00	Room 2: Focused Session: Lusaka		Room 1 DWRD Focused Session:		Room 3: focused session
Welcome Speech (5 min): Town Clerk deflorment and version of LCC and mandate  • Overview of LCC and mandate • Engagement/ involvement of LCC within the LSP welcome and overview of the session by the MD of LWSC (10 min) • Overview of LWSC and its mandate • Insight into the Water and Sanitation situation within Lusaka Sanitation situation within Lusaka Sanitation situation within Lusaka Sanitation situation within Lusaka City Waste: The Case of Chunaa		Sanitation Programme		Water Resource Development for		SASSCAL continued
welcome Speech (5 min): Town Clerk of LCC  • Coverview of LCC and mandate  • Engagement/ involvement of LCC  within the LSP  Welcome and overview of the session by the MD of LWSC (10 min)  • Overview of LWSC and its mandate  • Insight into the Water and sanitation situation within Lusaka Sanitation situation situat				Socio-economic development		
• Overview of LCC and mandate     • Engagement/ involvement of LCC within the LSP within the LSP welcome and overview of the session by the MD of LWSC (10 min)     • Overview of LWSC and its mandate     • Insight into the Water and sanitation situation within Lusaka Late (14:40)    Annual of LWSC and its mandate   14:20   14:20	14:00	Welcome Speech (5 min): Town Clerk	14:00	Role and functions of DWRD		Hydrological linkage between the Kunene River
Engagement/ involvement of LCC within the LSP within the LSP welcome and overview of the session by the MD of LWSC (10 min)     Overview of LWSC and its mandate     Insight into the Water and sanitation situation within Lusaka Large Managa (City Waste: The Case of Chunga Large)		of LCC		Kenneth Nyundu		and the Cuvelai Drainage System: Revisiting the
by the MD of LWSC (10 min)		<ul> <li>Overview of LCC and mandate</li> </ul>				Assumption of Tributaries as Spillways for
within the LSP  Welcome and overview of the session by the MD of LWSC (10 min)  • Overview of LWSC and its mandate  • Insight into the Water and Sanitation situation within Lusaka 14:40  • Insight into the Water and Sanitation situation within Lusaka Sanitation situation within Lusaka 14:40  Contamination of Groundwater by 14:40  City Waste: The Case of Chunga		<ul> <li>Engagement/ involvement of LCC</li> </ul>				Kunene River Floods - L. Hango, M.H.T.
welcome and overview of the session by the MD of LWSC (10 min)     Overview of LWSC and its mandate     Initiate the Water and Sanitation within Lusaka      Welcome and overview of LWSC and its mandate     Initiation the Water and Sanitation within Lusaka      Initiation situation within Lusaka      Welcome and Ground Found The Case of Chunga      Initiation Sanitation and Initiation Sanitation within Lusaka      Initiation Sanitation Sanitat		within the LSP				Hipondoka, H.N. Shalongo, P.F. Mufeti
Overview of LWSC and its mandate mandate     Insight into the Water and Sanitation situation within Lusaka 14:40 Contamination of Groundwater by 14:40 City Waste: The Case of Chunga	14:20	welcome and overview of the session by the MD of LWSC (10 min)	14:20	Impact of Urbanisation on Ground	14:20	Are large classic gully systems inactive remnants
Africa - Nkonde Kalunga     Insight into the Water and Sanitation situation within Lusaka     Institution within Lusaka     Institution within Lusaka     Institution within Lusaka		and				of the past a field based case study
• Insight into the Water and Sanitation situation within Lusaka Sanitation situation within Lusaka City Waste: The Case of Chunga				Africa <b>- Nkonde Kalunga</b>		investigating sediment movement -
Sanitation situation within Lusaka 14:40 Contamination of Groundwater by 14:40		• Insight into the Water and				G. Olivier, J. Helmschrot, W.P. de Clercq
City Waste: The Case of Chunga	14:40	Sanitation situation within Lusaka	14:40	Contamination of Groundwater by	14:40	Assessment of the dynamics of surface
200 000 000 000		and an overview of the different		City Waste: The Case of Chunga		hydrology of the Barotse floodplains using the
Landfill - Beatrice Kanyamuna Pole				Landfill - Beatrice Kanyamuna Pole		soil and water assessment tool (swat), Western













HEALTH BREAK

	<b>T</b> E	þ			1	,
Center, Lusaka Zambia		Zambia - Anthony Chabala, Banda Kawawa, Henry. M. Zimba, Wilson Phiri, Markus	Meinhardt, Imasiku. A. Nyambe.	Semi-arid Catchments under Change: Adapted	Hydrological Models to Simulate the Influence of	Climate Change & Human Activities on Rainfall-
ıference				15:00		
h - 13th June, 2017. Mulungushi International Conference Center, Lusaka Zambia		and Mr Mathews Chilombo		Making the case for routine use of 15:00	+ + + + + + + + + + + + + + + + + + + +	monetal electioniagnetic
June				15:00		
h - 13th		stment	underway	inese and		







15:30









Basin – A Case Study From The Zambezi Region, Namibia, On

The Border With Zambia - Bäumle, Roland

A New Vision for the Kafue Catchment.

17:05

Scaling up an Evidence-Based Package for Water, Sanitation and

17:05

Hygiene (WASH) in 55 Healthcare Facilities in Zambia to mitigate

nealthcare-associated infections - Lavuun Verstraete

17:20 19:00

Chibesa Pensulo & Rowen Janie

**MEET THE MINISTER DINNER END OF DAY ONE** 

Deep-Seated Freshwater Aquifers In The Northern Kalahari

16:45

populations in

Perceptions of sanitation structures among poor .usaka, Zambia: A qualitative study - Beatrice Chibwe

16:45

	1000

2th - 13th June, 2017. Mulungushi International Conference Center, Lusaka Zambia



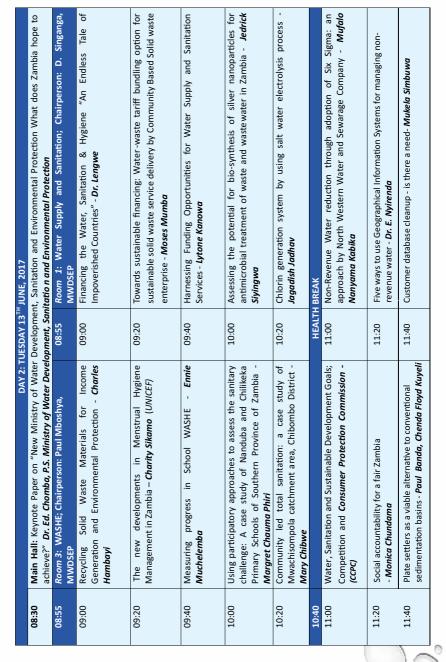
































## ZAMBIA WATER FORUM AND EXHIBITION=

Metering success and shortcomings for water utility companies in Zambia: Case of Eastern Water and Sewerage Company - way forward - <i>Aaron Mulinda</i>	Water Quality of the Kafue River in Kafue Town of Zambia - Mutande  Tembo and Samuel Mutiti	10 Low cost water quality interventions and recommendations on water-borne illness prevention in Peri-Urban areas partly serviced by Mulonga water Sewerage Company - Jackson Mulenga	LUNCH TUNCH	Tour Exhibition Booths – All		nd Sludge Management Project in Kanyama, Lusaka.	Room 5: Integrated Water Resource Management; Chairperson: Dr Paul Kapotwe	Seasonal rainfall effects on groundwater for Choma Town in Southern Province of Zambia - <i>Julius Ngambi</i>	SO An initiative for developing a Water SDG programme for Africa  Kidanemariam Jembere	15:10 Transboundary Water Cooperation within the context of Sustainable Development Goals: A case study of Zambia - <i>Happy Musumali</i> .
The developments in the drilling industry; WARMA Act 12:00 N. 11of 2011 Chapter - <b>DAZ, WARMA and GReSP</b>	Registration of Drillers and Drilling Companies in 12:20 Zambia: The Case of Professional Code of Conduct and Ethics, Drillers Association of Zambia - <i>Christopher Chilongo</i>	Climate Smart Agriculture - Climate Smart Water Use 12:40 in Southern Province Ministry of Agriculture - SNV and GIZ, Rowen Jani	1	Tot	Reconvening in Room 2 for field trips formalities	Field trips: WASAZA / MCA Bio-Latrine Project in Chazanga and Sludge Management Project in Kanyama, Lusaka.	Room 3: Focused Session: Multi stakeholder partnerships for Water Security.	New perspectives on Water Security and information 14:30 management - <i>Robin Farrington, David Mwamba</i>	Lusaka Water Security Initiative – multi-stakeholder 14:50 collective action for a healthy and prosperous city (LuWSI) - <i>Kelvin Chitumbo, Ezekiel Sekele</i>	Lusaka Wellfield Protection Project – creating 1 recreational parks and groundwater protection zones to protect Lusaka Water and Sewerage Company's strategic boreholes - Elijah Musonda, Levy Museteka
12:00	12:20	12:40	13:00	13:45	14:10	14:20	14:30	14:30	14:50	15:10





























15:30	Itawa Springs Protection Project – mobilizing 15:50 communities to protect a critical water source - <i>Leo Kangwa, Duncan Tem</i>	15:50	New Approaches of Remote Sensing for the determination of hidden groundwater bodies - <i>Clemence Dubois, Roland Baumle, Thomas Himmelsbach</i>
16:10	Chambeshi Water Security Partnership – catalysing partners to support catchment management and implementation of international water stewardship standards. <i>Mwiza Muzumara, Malama Kasalwe,</i>	16:10	Assessment of the metal mobility of contaminated sediments of the Kalengwa stream of North Western Zambia. <i>Charity Lweya, Kawawa Banda, Imasiku Nyambe, Soren Jessen, Flemming Larsen</i>
16:30	Plenary Discussion	16:30	The Biogas Industry in Zambia - <i>David C. Kaluba</i>
17:00	17:00 Room 2: Closing of forum - Dr. Ed. Chomba, P.S. Ministry of Water Development, Sanitation and Environmental Protection	y of Water D	evelopment, Sanitation and Environmental Protection
17:20		HEAL	HEALTH BREAK





















## ABOUT THE KEY NOTE SPEAKERS



Alex Simalabwi is the Executive Secretary of the Global Water Partnership (GWP) Southern Africa and Head of GWP Africa Coordination Unit. He is GWP's global Lead on climate change and Global Coordinator of the Water, Climate and Development Program at GWP HQ, an international organization set up by the World Bank, UNDP and government of Sweden. He is an international development professional with expertise in water resources, economic development, investment strategy design and public policy. He has extensive experience in climate change adaptation and water resources management. He Co-Chaired the World Bank Expert Group for climate resilience, advised the Bank where to invest their climate funds among

34 countries worldwide. He conceived, developed and leads a program for investments preparation, water security and climate resilient development across 60 countries spanning four continents: Europe, Asia, Africa, Latin America and Caribbean. He has advised more than 20 countries and governments on integration of water into economic national development. He is the lead author of the report "Water Security for Development in Africa' and also led the development of the African Union strategic framework for water security and climate resilient development. He holds postgraduate qualifications in business (MBA), Civil engineering and a Master's in public policy from Harvard University Kennedy School of Government. He will be speaking on "Water, Job creation, industrialization and SDG implementation in Africa".



Dr. Bishop Ed Chomba is a double PhD Holder from Oxford University (Trinity College) in England and Princeton University (Woodrow Wilson) USA. Dr. Chomba is a Consecrated Bishop in the Orthodox Church in the Archdiocese of New England East Coast States of United States of America. He Practices Law in the United Kingdom of Great Britain and British Isles except Scotland, also in the East Coat and Mid-west of USA.

Dr. Bishop Chomba has more than 20 years of experience in Human Management, Political Consulting and Counsel. He has worked at the House of Lords in London as a researcher. He also worked as Canon

in the Orthodox Diocese of USA and he is the Presiding Bishop at Christ Church Cathedral in Massachusetts. An Adjunct Prof at Sanctus University in the faculty of Law and Sacred Orthodox Theology. Dr. Bishop Chomba is a Theologian and Philosopher. He pioneered the Water Resources Management Authority for the Republic of Zambia and serves as its inaugural Board Chairman. Currently, he is the Permanent Secretary in the Ministry of Water Development, Sanitation and Environmental Protection for the Republic of Zambia























### **DESCRIPTION OF FIELD TRIPS**

Four field trips have been lined up, two within the Forum and Exhibition period on 13th June, 2017 and two after the Forum and Exhibition on 14th June, 2017. The field visits are summarized below.

#### **Biolatrine Project - Chazanga Community Schools** 1.0

Biolatrines are a cross-cutting technology, representing innovation in sanitation, solid waste management (due to its treatment of organic waste) and renewable energy. Continuing with track record in school based sanitation; Water and sanitation Association of Zambia in partnership with Millennium Challenge Account (MCA) Zambia, implemented a project on sanitation improvement through biolatrines at David Livingstone and Reachout Community Schools in Chazanga compound, Lusaka. The project aim was to improve the sanitation conditions and enhance knowledge awareness of students, teachers and their families, in the areas of sanitation and solid waste management through simultaneous health and hygiene education process. The education component was meant to promote ownership of the sanitation facilities and enhance long-term good management practices.

The project was successfully implemented and included the following activities;

- Health and Hygiene Assessment (HIA) baseline
- Preparation of environmental project brief
- Construction of two biolatrines
- Renovation of the existing toilet facilities
- Health and Hygiene Education (HHE) trainings for both teachers and pupils

The implementation of the planned project activities resulted into the following outcomes;

- Improved sanitation conditions.
- Improved awareness of sanitation, health and hygiene, menstrual health management, solid waste management, and ground water protection.
- Development of biogas business model to enhance project sustainability via entrepreneurship (use/sale of biogas and fertilizer).
- Capacity built in biogas digester construction, operations and maintenance for the implemented facilities.

The achievement of the above results was a success as the project indicated an impact on the beneficiaries. All the activities with the necessary changes of the project that were implemented were communicated to all relevant stakeholders. The project duration was 13 months and commenced in November 2015 with funding from MCA-IGP.























# Programme, 13th June 2017

Time	Activity
14:10hours	Depart from Mulungushi International Conference Centre for Chazanga
15.00hours	Presentation on overview of field site
15.30hours	Tour
16.20hours	Wrap Up
16.30hours	Depart for Mulungushi International Conference

### Sludge Management Project in Kanyama

The sanitation conditions in Peri-Urban compounds in Zambia are problematic. The population density increases fast and toilets contaminate the underground water while many people fetch their daily water from shallow wells. Particularly in the rainy season, there are some outbreaks of cholera and typhoid. Linking the greas to the sewer network of the town, for instance in the case of Lusaka's outskirts, is not affordable. Partially unplanned structures, the high level of rock outcrops and the poor general drainage are the reasons for that. In respect of challenges regarding the achievement of the Millennium Development Goals in the sub-sector of sanitation, donors are communicating their willingness to support sanitation measures. Water and Sanitation for the Urban Poor (WSUP), with funding from the Stone Family Foundation linked up with Water Supply and Sanitation Association of Zambia (WASAZA) and Lusaka Water and Sewerage Company (LWSC) to implement a Fecal Sludge Management Project in low cost areas around Lusaka. Kanyama Compound was chosen as the starting point.

The objective of the project was to identify and test methods of fecal sludge management which are economically viable and sustainable. This was to be achieved if all together:

- · The existing pits are emptied at a service fee;
- · The generated biogas is sold to nearby households; and
- · The digested slurry is further treated at the drying beds and sold as soil conditioner or

As the Faecal matter is usually mixed with none-organic waste, the substance undergoes a rough washing process before entering the biogas plant. For this process the watery component of digester overflow is re-circulated. The digester is equipped with a sludge discharge pipe and a receiving tank for the more solid components. As the watery component is recycled, the digester content tends to thicken in the dry season but will be diluted in the rainy season. Any surplus water is discharged on overflow level through perforated pipes into a small banana plantation. The thickened slurry collects at the bottom of the digester and can be accessed using a sludge discharge pipe in readiness to be transported by a vacuum truck to drying beds outside the compound.

The project completed its planning and implementation phases. Construction of the pilot installation started in August 2012 to December 2012 and currently the Transfer Station is at its operational apex while being monitored and fine-tuned.























# Programme, 13th June 2017

Time	Activity
14:10 hours	Depart from Mulungushi International Conference Centre for
	Kanyama Water Trust
15:00 hours	Presentation on overview of the plant
15:30 hours	Tour
16:20 hours	Close
16:30 hours	MICC

#### 3.0 The Livingstone -Victoria Falls – Musio-Tunya National Park

The Zambezi River Basin is the largest river basin in Southern Africa, covering some 1.37 million square kilometers across eight countries: Angola, Botswana, Malawi, Mozambique, Namibia, Tanzania, Zambia, and Zimbabwe. It is home to about 40 million people who rely on the river for drinking water, fisheries, irrigation, hydropower production, mining and industry, ecosystem maintenance, and other uses. The river, which is the fourth largest river in Africa, also attracts tourists from around the world, who come to see the Victoria Falls and wildlife along the river banks. Protecting and managing the sustainable use and development of the Zambezi is extremely important to the people living in the region. Water management in the basin is especially difficult because countries have multiple and competing interests; inadequate basinlevel institutional structures; institutional, legal, economic, and human resource constraints; and poor data collection, poor communication, and inadequate training. The capital of the Southern Province of Zambia, lies 10 km (6.2 mi) to the north of the Zambezi River. It is named after David Livingstone, the British Explorer who was the first European to explore the area.

The Victoria Falls, also called the Mosi-oa-Tunya falls, is one of the greatest attractions in Africa and one of the most spectacular waterfalls in the world located on the Zambezi River, no wonder it is one of the Seven Wonders of the World. The falls also defines the border between Zambia and Zimbabwe. It is the only waterfall in the world with a length of more than a kilometer and a height of more than hundred meters. In addition to water of the Zambezi River being used by wild-life, another competing demand is that of electricity generation. On the Zambian side of the falls part of the water is diverted for hydropower generation.

Victoria Falls Field Museum is well kept and informative and should be part of any visitor's stay. There are large displays about Zambia's independence, early man, witchcraft, local chiefs, crafts and an extensive selection of David Livingstone memorabilia. Livingstone Museum is devoted to archaeology, ethnography and history and contains a collection of memorabilia relating to David Livingstone.

Mosi-oa-Tunya National Park is an UNESCO World Heritage site that is home to one half of the Mosi-oa-Tunya falls. 'Mosi-oa-Tunya' comes from the Kalolo or Lozi language and literally means, the smoke that thunders. Mosi-oa-Tunya National Park covers 66 km² (25 sq mi) and lies on a north-west arc, about 20km off the Zambezi River bank. It extends downstream from the falls and to the south-east along the Batoka Gorges . The wildlife park includes tall riverine forest with palm trees, Miombo Woodland and grassland with plenty of birds, and animals including giraffes, zebras, warthogs, sables, elands, buffalos, impalas, elephants and antelopes.





















# Programme, 14th June 2017

Time	Activity
06:00 hours	Departure to Livingstone from Govt complex
12:00 hours	Victoria Falls Field Museum
13:00 hours	Zambezi River boat Cruise and lunch
16:00 hours	Mosi-oa-Tunya National Park on the city's south-western edge
18:00 hours	Dinner
07:00 hours	Breakfast
08:30 hours	Victoria Falls
13:30	Lunch and Departure to Lusaka

### 4.0 Kariba Dam and Zesco Power Generation Plant

Situated in the hilly district of Siavonga and along the mighty Zambezi River, is one of Africa's biggest dams, the Kariba dam. The 58 year old, 128m high, 579m wide arch-shaped concrete dam has a holding capacity of 185 km<sup>3</sup> and forms Lake Kariba, the world's largest man-made reservoir.

The dam houses two power plants on it; one on the north bank in Zambia and one on the south bank in Zimbabwe. The two plants have a maximum installed capacity of 1,626 megawatts but have of late being operating way below capacity owing to both climate variations and natural deterioration of the dam.

Participants in the field trip to Siavonga will have an opportunity to see practical transboundary water management in effect as the dam is jointly operated by both Zambia and Zimbabwe through the Zambezi River Authority. Also, participants will visit the North Bank Power Generation Plant to appreciate the water and energy nexus as well as enjoy a boat cruise and beauty of the scenery around the lake and Siavonga District.

Programme,	14 <sup>th</sup> June 2017
Time	Activity
07:30	Depart Government Complex for Siavonga
09:30	Presentation on overview of dam and power plant (ZRA and ZESCO).
10:20	Tour of facilities
13:00	Lunch
14:30	Boat Cruise
17:30	Wrap up
15 <sup>th</sup> June 201	7
Time	Activity
09:00	Depart for Lusaka























### POST ZAWAFE WORKSHOP 14th June 2017

### The Sustainable Sanitation Alliance (SuSanA),

Proposed SuSanA supported event: Achieving SDG6 sanitation targets in Lusaka through establishment of city-wide on-site sanitation service chains. Version:

Authors: Esther Shaylor, Jonathan Parkinson and Trevor Surridge

Date of Event: 14th June 2017

**Location:** Mulungushi International Conference Center

The 6th Zambia Water Forum and Exhibition (ZAWAFE) will take place on 12th and 13th June 2017 in Lusaka and will focus on how Zambia is preparing to reach the SDG 6. The Sustainable Sanitation Alliance (SuSanA), are proposing to host a one day event with key stakeholders to discuss how on-site sanitation service chains can be built and supported for Lusaka to reach SDG6 sanitation targets. The day will focus on real examples of sanitation chains in Lusaka being addressed by current programmes and how actors can work together to develop a consistent approach to the challenges of on-site sanitation.

Aim: To build a unified approach to Lusaka's efforts to address SDG6's sanitation targets by bringing together key actors working to improve on-site sanitation facilities and service chains.

**Objective:** Focusing on the challenges of a changing city, we will look at the city of Lusaka, identify what has been done, what is planned and gaps for on-site sanitation services to meet SDG 6, including facilities, services and faecal sludge management. Look at the potential of using the collaborative SuSanA community via the online platform SuSanA.org to support key partners and stakeholders in Zambia more broadly to address the gaps and barriers to reaching SDG 6.

Through the support of the collaborative SuSanA community of experts via the online SuSanA platform, we aim to provide guidance and inputs to help the Lusaka actors to address the identified gaps within the on-site sanitation services chain. SuSanA's community will assist with suggestions of approaches and support with facts for informed decision-making processes.

Key Stakeholders: Lusaka City Council (LCC), Lusaka Water and Sewage Company (LWSC), National Water Supply and Sanitation Council (NWASCO), Zambia Environmental Management Agency (ZEMA), NGO WASH Forum, Water and Sanitation Association of Zambia (WAZASA), University of Lusaka, WaterAid, Water and Sanitation for the Urban Poor (WSUP), Peoples Processes on Houses and Poverty in Zambia (PPHPZ), Village Water Zambia, Better now Finance Company (BFC), Zambia WASH Advocacy Network (ZAWN), Network for Environmental Concerns and Solutions (NECOS), Toilet Yanga, Care International Zambia, Brian Colguhoum Hugh O Dennell and Partners (BCHOD).

SuSanA partners collaborating on this Event: BORDA, GIZ, Oxfam GB

#### **Programme of Events:**

- 1. Introductions
- 2. Overview of SuSanA and its functions
- 3. Key presentations on major sanitation focused programmes to address SDG6
- Gap identification and grouping 4.
- Plan of action to address the gaps 5.
- 6 Identify where support is needed for the action plan, prioritise these for taking to the SuSanA platform. Form working groups with commitment for taking actions forwards
- Planning next steps and future review 7.



**1**6



















# Table of Exhibitors

EXHIBITOR	SPACE
Metmin Zambia	001
Mentmin India	002
Department of Water Resources Development	003
University of Zambia Integrated Water Resources Management Centre, Directorate of Research and Graduate Studies, and Zambia Water Partnership	004
German Development Cooperation (GDC) - The German Embassy, KfW, BGR and GIZ	005
Devolution Trust Fund (DTF)	006
Ministry of Water Development, Sanitation and Environmental Protection	007
Zambia Environmental Management Agency ( ZEMA)	008
National Water Supply and Sanitation Council (NWASCO)	009
Lusaka Water and Sewerage Company (LWSC)	010
WaterAid Zambia	011
Mulonga Water and Sewerage Company	012
Southern Water and Sewerage	013
Eastern Water and Sewerage Company	014
Water Resources Management Authority (WARMA)	015
WWF	016
COWI	017
SASSCAL	018
MCL / Bentley	019
Global Water Partnership	020
Drillers Association of Zambia	021
Water Supply and Sanitation Association of Zambia (WASAZA	022
Southern Pipeline Constructors	023
CCPC	024
SuSanA / Oxfam	025
BORDA	026
BABA Energy Solutions	027
Esaja.com	028
North Western Water and Sewerage Company	029
Aquaquest Ltd	030
Linber Enterprise	031
Proplastics	032
Nairobi City	033























# Table of Exhibitors

EXHIBITOR	SPACE
Lukanga water and Sewerage Company	034
MECB Consulting	035
Kafubu Water & Sewerage	036
IHS Towers	037
CITY TV	038
ZAMCOM	039
AKROS	040
Ringphar Limited Zambia	041







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