
**FSM CAPACITY DEVELOPMENT FOR
DAR ES SALAAM KICK-OFF
WORKSHOP**



**PROTEA MARRIOT HOTEL, DAR ES SALAAM
14TH -15TH MARCH 2019**

CONTENTS

1.	INTRODUCTION AND BACKGROUND	4
1.1.	INTRODUCTION	4
1.2.	INTRODUCTION TO THE PROJECT ‘FSM CAPACITY DEVELOPMENT FOR DAR ES SALAAM’	5
1.3.	PROJECT DURATION	5
1.4.	CORE PROJECT OBJECTIVES.....	5
1.5.	TARGET GROUPS OF THE FSM CAPACITY DEVELOPMENT PROJECT	6
1.6.	OBJECTIVES OF THE WORKSHOP	6
1.7.	PARTICIPANTS	7
1.8.	METHODOLOGY OF THE WORKSHOP	7
2.	CREATING CONCESUS ON THE CURRENT SITUATION OF FSM IN DAR ES SALAAM	8
2.1.	UPDATES ON SANITATION, HEALTH AND FSM IN DAR Es Salaam BY THE REGIONAL HEALTH OFFICER.....	8
2.1.1.	PRESENTATION FROM THE SPEAKER	8
2.1.2.	QUESTION AND ASNSWERS	9
2.2.	UPDATES ON FSM FROM ARDHI UNIVERITY	9
2.2.1.	PRESENTATION FROM THE SPEAKER	9
2.2.2.	SUGGESTED WAY FORWARD	11
2.2.3.	RECOMMENDATIONS AND QUESTIONS FROM THE PARTICIPANTS	11
2.3.	UPDATES ON FAECAL SLUDGE MANAGEMENT IN TANZANIA by the Ministry of water	12
2.3.1.	SANITATION STATUS IN URBAN	12
2.3.2.	SANITATION AND FSM POLICIES AND LEGISLATION.....	13
2.3.3.	ROLES AND RESPONSIBILITIES.....	13
2.3.4.	QUESTIONS AND ANSWERS	14
2.4.	UPDATES FROM MINISTRY OF HEALTH COMMUNITY DEVELOPMENT GENDER ELDERY AND CHILDREN	14
2.4.1.	FSM5 AND AFRICASAN CONFERENCE	15
2.4.2.	CONFERENCE OUTCOME	15
2.4.3.	LESSONS LEARNED FROM FSM5 CONFERENCE RELEVANT FOR THE TANZANIA CONTEXT.....	16
2.4.4.	RECOMMENDATIONS.....	16
2.4.5.	CONCLUSION ON FSM5 AND AFRICASAN5	16
2.4.6.	QUESTIONS AND ANSWERS	17

2.5.	UPDATES FROM DAR ES SALAAM WATER AND SEWERAGE AUTHORITY	17
2.5.1.	THE PROPOSED WATER SUPPLY AND SANITATION ACT, 2018	17
2.5.2.	DAWASA WASTEWATER IMPROVEMENT PLANS.....	18
2.5.3.	ROLES AND RESPONSIBILITIES IN FSM SERVICE PROVISION	18
2.5.4.	OFF GRID SS & FSM OVERVIEW	19
2.5.5.	CHALLENGES FACED BY DAWASA AND PROPOSED WAY FORWARD.....	19
2.5.6.	QUESTION AND ANSWERS	21
2.6.	WATERAID: ROLE OF RESEARCH IN SANIATION AND HYGIENE	21
2.6.1.	SANITATION AND HYGIENE RESEARCH IN BABATI TOWN	21
2.6.2.	QUESTIONS AND ANSWERS	23
2.7.	CURRENT FSM PROJECTS COORDINATED AND IMPLEMENTED BY BORDA.....	24
2.7.1.	CURRENT PROJECTS	24
2.7.2.	QUESTION AND ANSWERS	24
3.	INTRODUCTION TO CURRENT FSM KNOWLEDGE EXCHANGE INITIATIVES	25
3.1.	KNOWLEDGE EXCHANGE INITIATIVES IN THE TANZANIAN SANITATION SECTOR – PRESENTATION BY ATAWAS	25
3.2.	INTRODUCTION TO THE SUSTAINABLE SANITATION ALLIANCE.....	26
3.3.	REFLECTING THE 3 CITY KNOWLEDGE EXCHANGE.....	27
3.4.	DISCUSSION ON APPROPRIATE KNOWLEDGE EXCHANGE INITIATIVES FOR TANZANIA	27
4.	SETTING UP FSM WORKING GROUPS	29
4.1.	IDENTIFYING THE GAPS IN THE ENABLING ENVIRONMENT THAT LEAD TO CHALLENGES IN FSM	29
4.2.	DETAILED PLANNING OF THE WORKING GROUPS.....	31
5.	CONCLUSION.....	35

ABBREVIATION

ATAWAS	Association of Tanzania Water Supply
BORDA	Bremen Overseas Research and Development Association
DAWASA	Dar es Salaam Water and Sewerage Authority
DSSD	Dar es Salaam City Council Sewerage Services Department
EWURA	Energy and water utilities Regulatory Authority
FSM	Faecal Sludge Management
FSTP	Faecal Sludge Treatment Plant
GIZ	Gesellschaft für Internationale Zusammenarbeit GmbH
KEx	Knowledge Exchange
LGA	Local Government Authority
MDA	Ministries, Department and Agencies
MHM	Menstrual Hygiene Management
MoHCDGEC	Ministry of Health, Community Development, Gender, Elderly and Children
MoW	Ministry of Water
NEMC	National Environmental Management Council
NSMIS	National Sanitation Management and Information System
NVF	New Venture Fund
ODF	Open Defecation Free
OSS	On-Site Sanitation
PASA	Pan-African Association of Sanitation Actors
SDG	Sustainable Development Goals
SFD	Faecal (Shit) Flow Diagram
SuSanA	Sustainable Sanitation Alliance
WSSA	Water Supply and Sewerage Authority

1. INTRODUCTION AND BACKGROUND

1.1. INTRODUCTION

Bremen Overseas Research and Development Association (BORDA) is an NGO Founded in 1977 which specializes in: Decentralised Wastewater Treatment Solutions, Biogas installations, Sanitation and Hygiene promotion, integrated approaches for urban sanitation planning and decentralised solid waste management. BORDA works in different areas in the world including Africa: Tanzania, Zambia, SA, Lesotho and Mali; America: Mexico, Cuba, Nicaragua, Haiti; South Asia: India, Nepal, Bangladesh; Southeast Asia: Indonesia, Cambodia, Vietnam Laos, Myanmar, Philippines West and Central Asia: Afghanistan.

In Tanzania BORDA is active since 2007. The regional BORDA Africa office in Dar es Salaam, Tanzania was established in 2010. One of the major areas BORDA Tanzania is working on is the promotion of holistic Faecal Sludge Management that provides sanitation services to underserved urban areas. For this, BORDA Tanzania supports the development of an enabling environment, including capacity development through demonstration systems, trainings and knowledge exchange.

FSM is an approach for the management of excreta which involves the containment, emptying, transportation, treatment and reuse/disposal of faecal sludge and its products. Faecal sludge is excreta that arrives at the treatment plant without pipe conveyance. FSM is affected by all parts of the enabling environment and the sustainability FSM solutions are affected by the quality of all project phases (planning, implementation, operation and maintenance (O&M), and monitoring and evaluation (M&E)).

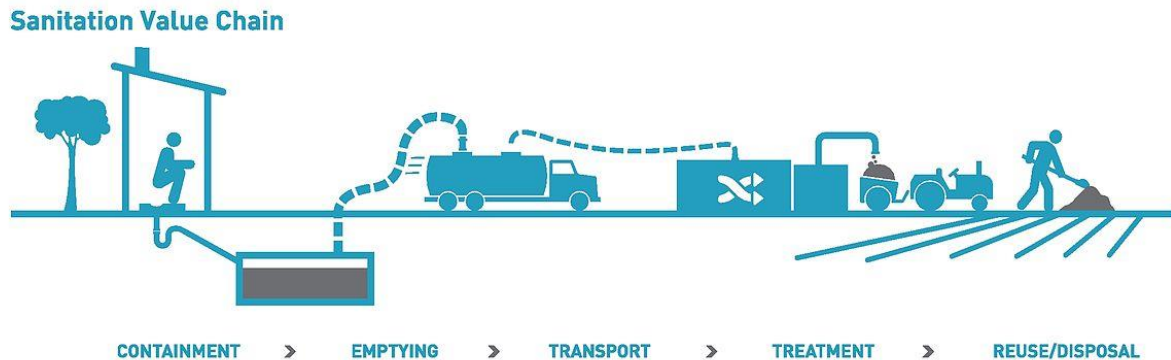


FIGURE 1: FAECALE SLUDGE VALUE CHAIN

1.2. INTRODUCTION TO THE PROJECT 'FSM CAPACITY DEVELOPMENT FOR DAR ES SALAAM'

The goal for this project is to support the sector to identify and address FSM challenges within Dar es Salaam within an intensive knowledge exchange, and thus to develop the capacities on FSM of all key FSM stakeholder. This project is funded by the New Venture Fund (NVF). The NVF supports innovative and effective public interest projects. NVF was established in 2006 in response to demand from leading philanthropists for an efficient, cost-effective, and time-saving platform to launch and operate charitable projects. NVF executes a range of donor-driven public interest projects in conservation, global health, public policy, international development, education, disaster recovery, and the arts. To date, NVF has run over 280 projects across a range of issues, both domestically and abroad. In 2016, NVF managed over \$325 million in funding for over 150 projects.

Dar es Salaam was selected as the project area for the implementation of this project because:

- It is one of the fastest growing cities in the world
- It has more than 4.3 million people (2012 census; NBS) and an annual growth of 5.6% which is catalyzed by urbanization.
- Only less than 10% of the city is served by the sewer network while more than 70% rely on on-site wastewater management solutions which influence illegal emptying practices.
- The knowledge on FSM is limited, scattered and inadequate.
- The FSM programs that are in DAR are focusing mainly on technical solutions.
- There is a lack of projects to engage sector stakeholders strategically and evaluate roles and institutional arrangements along the entire value chain.

1.3. PROJECT DURATION

The project "FSM Capacity Development for Dar es Salaam" started in January 2019 and will end in August 2019. It consists of:

1. A Kick-Off workshop in March 2019
2. Regular working group meetings in May, June and July 2019
3. A final workshop in August 2019
4. Long-term knowledge exchange within a knowledge exchange platform

1.4. CORE PROJECT OBJECTIVES

This project intends to fill the gaps in FSM by:

- Building sector-wide consensus on the current situation of the FSM in Tanzania focusing on Dar es Salaam and developing a holistic understanding of FSM.
- Focuses on regular KEx and learning by utilizing the established KEx Platform. Here in major FSM challenges are identified and addressed within specific working groups.

- Sector development by founding a base for longer term partnership through formalization of sanitation and FSM platform

1.5. TARGET GROUPS OF THE FSM CAPACITY DEVELOPMENT PROJECT

This project focuses on key FSM sector stakeholder for Dar es Salaam:

- Ministry of Water (MoW)
- MoHCDGEC
- Representatives from Dar es Salaam Regional Administration
- Representatives from Dar es Salaam Municipal Councils
- Dar es Salaam Water and Sewerage Authority (DAWASA)
- Development partners
- Academia

1.6. OBJECTIVES OF THE WORKSHOP

The workshop was opened by Mr. Willem van Rheenen (BORDA Africa Regional Director), who welcomed the participants and shared the objectives of the workshop. This workshop has the following objectives:

1. To bring the stakeholders in the field of water and sanitation together to have a consensus on the challenges of FSM
2. To create a platform of knowledge exchange on FSM
3. To determine the gaps in the enabling environment
 - Government support
 - Legal framework
 - Institutional arrangement
 - Skills and capacity
 - Social-cultural acceptance
 - Financial arrangement

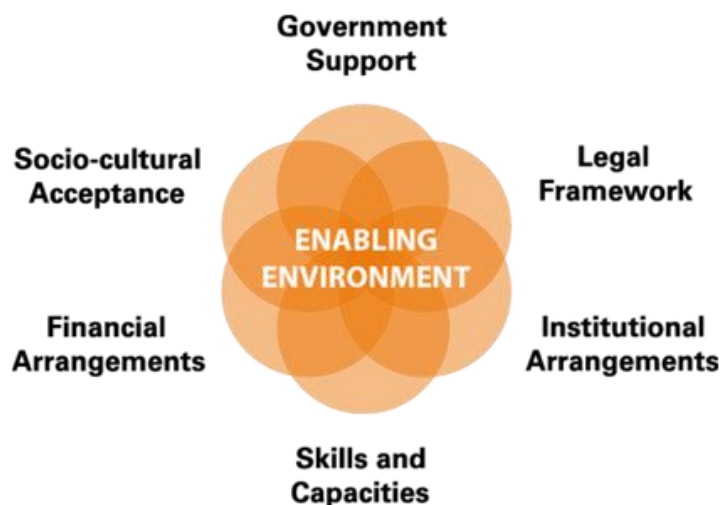


FIGURE 2: ENABLING ENVIRONMENT

1.7. PARTICIPANTS

The participants of this workshop are the key stakeholders from the water and sanitation sector throughout the country. There are participants from ministry, Local Government Authorities (LGAs), DAWASA, WASH Networks (ATAWAS and TAWASANET), academia, private service providers and development partners.

1.8. METHODOLOGY OF THE WORKSHOP

The workshop was participatory by nature, it comprised of participatory methodologies and interactive processes that ensured active engagement of participants in the discussion. The methods that were used included; group discussions, presentations, energizers, questions and answers, and open discussions. The participatory methods used were useful as they enabled participants to share experiences and learn from each other.



FIGURE 3: ENG. MUTAZAMBA DURING THE PRESENTATION OF WORKSHOP PARTICIPANTS

2. CREATING CONCESUS ON THE CURRENT SITUATION OF FSM IN DAR ES SALAAM

The first objective of the workshop was to inform the participants on current developments in FSM. This is to create a basic understanding of FSM in general and of the newest developments with a focus on Dar es Salaam.

2.1. UPDATES ON SANITATION, HEALTH AND FSM IN DAR ES SALAAM BY THE REGIONAL HEALTH OFFICER

2.1.1. PRESENTATION FROM THE SPEAKER

Mr. Kamuzola, a Regional Health Officer started by explaining that lack of proper sanitation leads to the outbreak of water and food borne diseases like typhoid, dysentery, diarrhea, intestinal worms and cholera. He went further by explaining that since 2015 there has been control over water borne diseases in Dar es Salaam City, especially cholera. This is an outcome of different interventions which started with the toilet improving campaign, which ensured that every household and institutions uses VIP latrine, pour flush latrine or water closet system including the availability of hand wash facility.

Provision of health education to the community including in schools and other institutions has also helped to reduce the intensity of such epidemics. There has been inspection in schools and households to make sure there is provision of safe and clean water, availability of toilets, and availability of hand wash facilities as well as establishing sanitation clubs in schools.

2.1.2. QUESTION AND ANSWERS

Question 1: Basing on the presentation, is the decrease of Cholera in Dar es Salaam an outcome of FSM or education to the community on the ways to prevent themselves from the disease? There are areas that FSM is not in operation, neither is it known but there is a decrease in cholera, what could be the reason?

Answer: Dealing with any epidemic is a matter that needs multiple interventions, all of them are important. Different risk factors are always considered so as to come up with an intervention that can truly solve the problem.

Question 2: In Dar es Salaam City, are there designated areas for disposing faecal sludge? Are they sufficient? Are the private service providers (emptiers) following safety rules for disposal?

Answers: There are enough designated areas for faecal sludge disposal, there is no report of any insufficient site so far. There is legislation that guides faecal sludge disposal. If there is anyone with proof of emptiers who are doing illegal disposal, they should report for immediate action.

2.2. UPDATES ON FSM FROM ARDHI UNIVERSITY

Dr. Jacob Kihila from Institute of Human Settlements Studies (IHSS), Ardhi University, Tanzania presented on FSM approaches and interventions in Tanzania.

2.2.1. PRESENTATION FROM THE SPEAKER

Dr. Kihila pointed out that Onsite Sanitation serves 2.7 Billion people globally but there is no typical management system in low and middle income countries. There is limited data and experience in the developing countries hence making it challenging to run with the global pace. In reality, until a few years ago, there was no emphasis on FSM and therefore most of the developing countries are lagging behind. As a result unsafe disposal of faecal sludge is still a common practice.

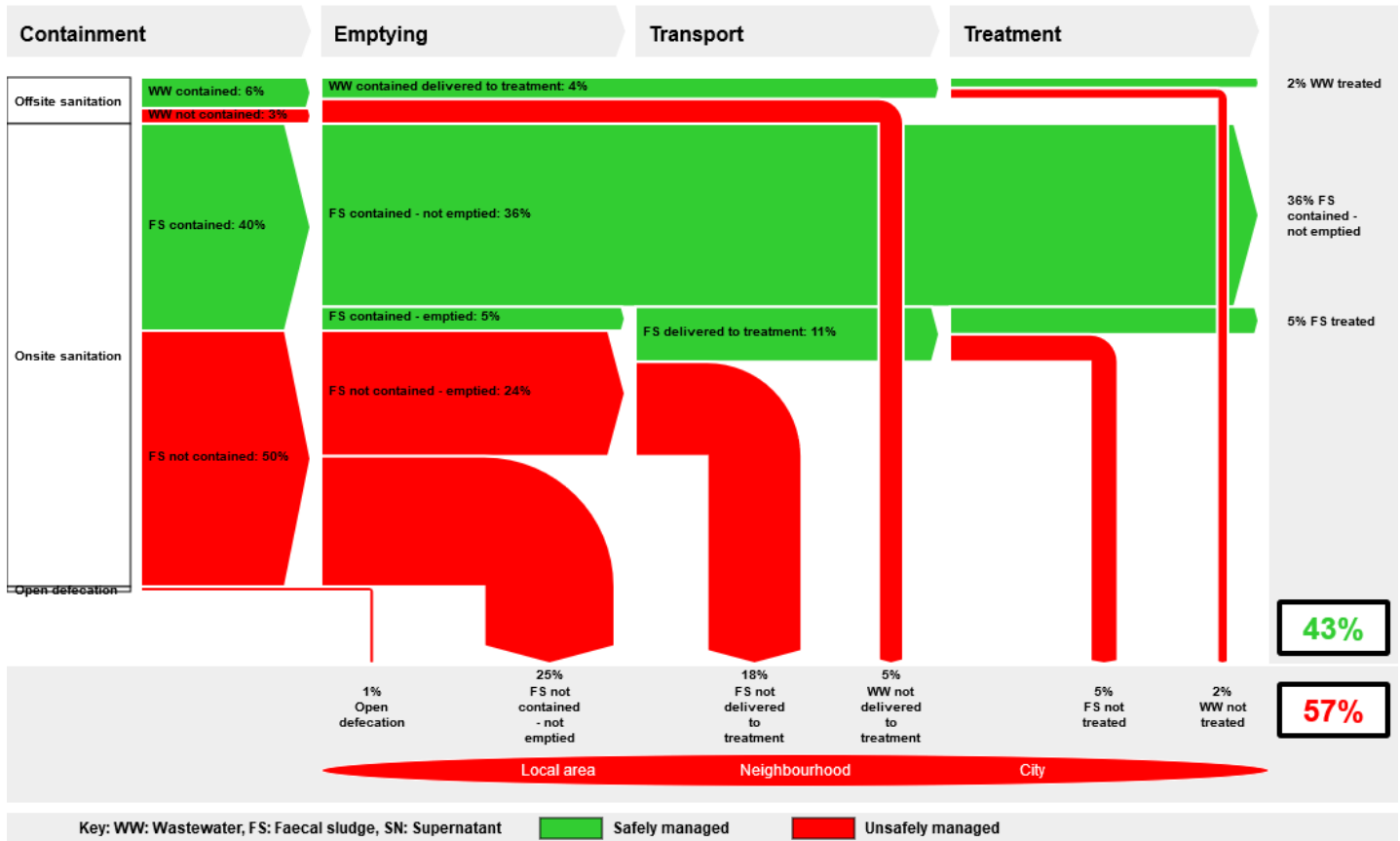
He pointed out that, in Dar es Salaam, only 9% of population is served by the offsite sanitation systems. In addition, only 44.4% of the onsite sanitation is considered safely managed. The remaining 55.6% is contained within the facility and thus considered as safely managed. Although considered safely managed, there is a possibility that the environment is polluted as most of the so called septic tanks are not up to the standard. This endangers the lives of the community especially those who depend on ground water.

FSM is currently facing the challenge of low capacity for de-sludging services since the attention in this sector is just starting. In addition, lack of faecal sludge treatment plants (FSTP), low priority in plans especially in semi urban areas and lack of awareness and expertise are hindering the FSM service provision.

On the other hand, Dr. Kihila pointed out the opportunities around FSM to be potential for business-wider markets as onsite sanitation coverage is high and enabling environment example policies supporting innovation.

Dar es Salaam, Tanzania
Version: Reviewed
SFD Level: not set

Date prepared: 3 Sep 2015
Prepared by: Eawag/Sandec



Produced with support from the SFD Promotion Initiative with funding from the Bill & Melinda Gates Foundation. The SFD Promotion Initiative recommends that this graphic be read in conjunction with the city's SFD Report which is available at: sfd.susana.org

FIGURE 4: THE FAECAL FLOW DIAGRAM (SFD) FOR DAR ES SALAAM

The role of academia covers three aspects namely; Teaching, Research and community outreach. In teaching it will be shaping the mind-set of the society as well as preparing experts who will work in that sector. However, it should be known that FSM is not well mainstreamed in academic institutions; it is taught as a topic in environmental engineering instead of being a complete course. If any progress is to be made, research is very important. The research done within Tanzania is not sufficient and therefore lecturers are forced to use examples outside the country. There is a need of having evidence from the local areas so as to come up with customized and relevant solutions.

Currently, the following areas are potential for research:

- Sludge characterization
- Optimal resource recovery
- Faecal sludge and sanitation marketing
- Appropriate affordable and sustainable technologies including emerging technologies
- Integrated wastewater/ faecal sludge treatment options

So far, two universities have interventions on FSM. There is a Pilot - scale FSTP at UDSM. There is also Research on local conditioner for sludge, development of desludging framework and resource recovery (energy and nutrient) ongoing.

The following gaps and limitations were presented: teaching curriculums do not adequately address the issue of faecal sludge but rather focus on wastewater treatment and management. This means the engineers that are at the market place have limited knowledge on the matter. There is also a serious lack of data on FSM, this makes it difficult for the projects that are on the ground to thrive (limited informed decision making). On the other hand, the intensity of the problem is not well known and thus it is not prioritized (limited awareness). Lack of research facilities and expertise on FSM is another limitation. In the past few year there has been awakening especially for the PhD students to conduct research on FSM, however they are facing difficulties as there is no facilities for that work. Lack of coordination among different FSM stakeholders is another challenge. There is no clarity on duties and responsibilities of different ministries, utilities and other stakeholders which makes it difficult to form a system that works. The same is the reason for challenges for people who are willing to invest in FSM to get the needed information including data. On the other hand, every stakeholder is working on their own although they are focusing on achieving the same thing. This brings about inefficiency. A lot could be achieved through collective work.

2.2.2. SUGGESTED WAY FORWARD

Faecal Sludge Management to be mainstreamed in the curriculum: This will capacitate local experts who will work on the emerging projects. Although Dr. Kihila proposed it to be in the university level, one participant suggested that FSM should be taught also in the lower levels, from primary schools so as to break the “excreta phobia”. This is because at the university level, students are more likely to shy away from the course or application of the knowledge because of low awareness and acceptance regarding the topic of excreta management.

Joint researches and collaborations: This will expand stakeholders’ knowledge on FSM and reduce replication of efforts.

Enhance mechanisms for sharing results and findings from faecal sludge research: As much as the study and research in FSM is insufficient, it does not mean it is not done. There are few studies that have been done and much more will be done now that this sector is growing, however, if there will be no proper mechanism to share the findings and the results of such studies, the growth of FSM will be limited.

Promote Public-Private Partnership (PPP) in FSM: FSM is not something that can be achieved by the government itself. Its performance depends on the engagement of other partners including the private sector. There should therefore be mechanism to promote their involvement.

2.2.3. RECOMMENDATIONS AND QUESTIONS FROM THE PARTICIPANTS

After the presentation, the following recommendations were made:

- The academia should intensively research to topics that are major challenges for the Tanzanian communities. This can be enabled by intensive exchange between academia and the private sector.

- The researches published by PhD students should be disseminated to the respective ministries so that the problems can be worked on.
- As we know now the major part of FS is stored on-site and underground, we should start thinking that one time the ground will be saturated. What will be the next move?

Question 1: What is the involvement of PPP (Public-Private Partnership) in FSM? How can financial institutions be involved in investing in FSM?

Answer: The starting point should be dealing with the “excreta phobia”, the society should be addressed and helped to view FSM as a business. By doing that, more people will start working on this sector which will attract financial institutions to invest. The private sector has not been well engaged for different reasons. To change this, research in FSM should be widely conducted and outcomes shall be shared to different stakeholders so that they can see the opportunities in FSM. On the other hand, a business model is needed so as to work as guideline to those who are willing to invest.

Question 2: Concerning the standard of the resource recovery, how far have the stakeholders gone to ensure the by-products of FS are safe?

Answer: There is no clear standard or guideline on FS by-products. A lot of research is needed so as to establish that. And it should be noted that the standards are only as good as their reinforcement.

2.3. UPDATES ON FAECAL SLUDGE MANAGEMENT IN TANZANIA BY THE MINISTRY OF WATER

This presentation was done by Eng. Jackson Mutazamba, the assistant director for sanitation and hygiene, in the division of water supply and sanitation which is under the MoW. Eng. Mutazamba started by pointing out that, despite the increasing attention that sanitation is receiving in the country, access to sanitation services lags behind the actual needs. Situation is especially critical in urban areas where the population growth is high, which is at the rate of an average of 5% per year. He explained that, through the MoW, the government is committed for achieving the Ngor Commitments on water security and sanitation in Africa which aims at achieving universal access to adequate and sustainable sanitation and hygiene and eliminate open defecation by 2030. The Government of Tanzania has committed itself to the Sustainable Development Goals (SDGs), of which SDG 6 aims at safely managed, affordable and socially and culturally appropriate access to water and sanitation services, that is why the MoW through its water and sanitation division is geared towards achieving the goal.

2.3.1. SANITATION STATUS IN URBAN

The sanitation status presented in the 2012 NHPC, demonstrates that 71.9% of urban population reside in households have improved toilets, of which 32.8% are water operated (flush or pour flush) and 39.1% are pit latrines. The remaining urban population which is about 28% uses improved latrines, among which 0.9% have no toilet facilities and hence practice open defecation.

2.3.2. SANITATION AND FSM POLICIES AND LEGISLATION

Eng. Mutazamba highlighted that there is no specific policy document called Tanzania Sanitation Policy. However, sanitation aspects are covered in other related policies such as National Environmental Policy 1997, National Water Policy 2002 and National Health Policy 2007. He explained that, the objective of the National Environmental Policy regarding water, sewerage, and sanitation is to support the overall national objective of providing clean and safe drinking water, protect water sources and prevent environmental pollution. The national Water Policy states that every citizen has a right to water supply and sanitation services.

On the other hand, he explained the key policies and legislation for FSM as follows:

Water Supply and Sanitation Act, 2019: Under this act, Water Supply and Sanitation Authorities (WSSAs) are mandated to develop and maintain water and sanitation works, to plan and execute new projects for water supply and provision of sanitation, as well as to construct, operate and keep water works and sanitation works. The act also empowers LGAs to make by-laws in relation to water supply and sanitation, for example where a sewer line exists, properties within 30 meters should be connected at a price affordable.

Environmental Management Act, 2004: This act has several provisions of FSM and it requires LGAs to design disposal ponds, sewage treatment facilities and sewer points and to ensure that sewage is appropriately treated before it is discharged into water bodies or open land, and that it does not increase the risk of infections, ecological disturbance or environmental degradation. It also as to prescribe and issue guidelines on how liquid waste from domestic and commercial premises is to be treated and finally disposed of both within the site and outside the premises. The act also requires every LGAs to designate or appoint an Environment Management Officer who will ensure laws and rules are enforced/ adhered to.

Public Health Act 2009: The Act requires district and urban authorities to construct and maintain public sewers and sewerage disposal works on any public land, land acquired or land lawfully appropriated for that purpose. Under the act, district and urban authorities are empowered to make by-laws on Provision of adequate sanitary accommodation in every dwelling house and every public place including LGA schools, providing simple and appropriate technological options for the disposal of human excreta and Setting control and penalties for indiscriminate disposal of human excreta.

2.3.3. ROLES AND RESPONSIBILITIES

Eng. Mutazamba addressed the problem of lack of clarity in roles and responsibilities of different stakeholders for sanitation. He highlighted them as follows:

Central Government Ministries: He mentioned that, according to the Government Notice, 2016(GN 144/2016) on discharge of ministerial functions allocates ministerial responsibilities for sanitation as follows:-

- Matters on water quality and pollution control, water sources protection, sewage and drainage development are vested in the MoW
- Matters of preventive and curative services are vested in the Ministry for Health, Community.

- Matters on Regional and Local Government Administration are vested in President Office. Among the functions of the Regional Administration and Local Government is coordination of urban services such as transport, water and sanitation.
- Matters on environmental protection and enforcement are vested in the Vice President's Office

Water Supply and Sewerage Authorities (WSSAs) and LGAs: He mentioned their duties to be:

- Once a settlement has been declared an urban township/town, a WSSA is established by the Minister responsible for water in consultation with the Minister responsible for Local Government Authorities, all existing waterworks, plants, equipment and other assets of government or a Local government are transferred to the respective WSSA.
- The LGA retains powers to make by-laws in relation to water supply and sanitation for the utilities in their jurisdiction.
- Also, the establishment of WSSA in any given area does not relieve the LGA of their duties under the Public Health Act 2009 and Environmental Management Act, 2004 The power to monitor the performance lies with the Minister responsible for Local government

Eng. Mutazamba concluded that, not having a sanitation policy is a hindering factor and projects do not thrive because of that gap.

2.3.4. QUESTIONS AND ANSWERS

Question 1: Ministry of Health, Community Development, Gender, Elderly and Children (MoHCDGEC) did a study on sanitation in 2018, why is the 2012 data still used?

Answer: The data can only be valid and usable after they have been validated by NBS. The respective data should be submitted to the NBS for validation and publication.

Question 2: Between MoHCDGEC, MoW and Vice president's office, who is a perpetual custodian of sanitation and why is sanitation failing compared to water supply?

Answer: The roles of each ministry are clearly pointed out; the problem comes in the reinforcement of law, no matter under which ministry it is. For a long time sanitation was failing because there was no designated department, but the MoW is restructured and there is now a department dedicated to sanitation. Also, all water projects will have sanitation component.

2.4. UPDATES FROM MINISTRY OF HEALTH COMMUNITY DEVELOPMENT GENDER ELDERLY AND CHILDREN

Updates from the MoHCDGEC were given by Mr. Amour Selemani who shared the highlights and take aways from FSM5 and AfricaSan conferences.



FIGURE 5: MR. AMOUR SELEMANI PRESENTING ON THE FSM5 AND THE AFRICASAN CONFERENCES

2.4.1. FSM5 AND AFRICASAN CONFERENCE

FSM Conference: is a conference that brings together professionals working in the FSM sector to support the global initiative of disseminating sustainable solutions for Faecal Sludge Management.

AfricaSan: Is an African Union's movement to promote prioritization of sanitation and hygiene in Africa through increasing opportunities for collaboration and partnership.

Early this year, MoHCDEG got an opportunity to be participants in the two conferences namely FSM5 and AfricaSan5 which were conducted jointly from 18th – 22nd February 2019 in Cape Town. The Tanzania delegation had 33 people from the government, partners, NGOs and CSOs.

FSM5 Conference: Focused to demonstrate FSM as a utility service that can be structured and regulated by government, delivered in partnership with private service providers and organized to attract investment from government, development partners, commercial banks, and private entities.

AfricaSan5 Conference: AfricaSan5 focused to generate political momentum for sanitation and hygiene as well as provide a pan-African forum to showcase best practices and support problem solving.

2.4.2. CONFERENCE OUTCOME

Revolutionizing sanitation: The conference steered the decision to industrialize sanitation business. This business is 1000yrs old yet not industrialized.

Ngor Declarations were revisited: This was done so as to enhance positive steps taken by member states to establish leadership and coordination structures, to eliminate inequalities in access and use of sanitation services, to establish budgets on sanitation, to eliminate untreated waste, and encourage re-use in sanitation.

In achieving that Tanzania will upgrade National Sanitation Management and Information System (NSMIS) is to include equity aspects within 6 Months, and will develop a roadmap to achieve Open Defecation Free (ODF) within 12 Months.

Apart from that, other outcomes were:

- Pan-African Association of Sanitation Actors (PASA) was launched
- BORDA announced host of the FSM alliance
- FSM6 and Africasan6 will be conducted in different locations instead of one as the previous.

2.4.3. LESSONS LEARNED FROM FSM5 CONFERENCE RELEVANT FOR THE TANZANIA CONTEXT.

The following lessons were learnt:

- Sanitation partners work in isolation, weak coordination and collaboration. There is a need of improved information sharing mechanism.
- There are great opportunities for funding FSM from World Bank and Africa Development Bank.
- Sanitation and FSM policy is needed for guidance.
- There is a need of Sanitation Monitoring and Evaluation to look at entire service chain
- There is low awareness on Water, Sanitation and Hygiene among decision makers. Ministries, Department and Agencies (MDAs) and stakeholder should address this challenge

2.4.4. RECOMMENDATIONS

The following recommendations were made:

- Participation arrangement should be organized before going to the conference so as make sure the participant from the same country are on the same page.
- Launch FSM conference during the world toilet day.
- Next phase of the national sanitation campaign should include behavior change on managing solid waste and improving Menstrual Hygiene Management (MHM)
- There should be an electronic monitoring in sanitation service. The Uber example can be adapted to call for desludging service from nearby service provider.
- Establish database of pit emptiers.
- The feedback meetings should comprise technology adoption.

2.4.5. CONCLUSION ON FSM5 AND AFRICASAN5

The findings in the current knowledge exchange can be applied by identifying the gap on weak collaboration, sanitation service chain and scarce FSM information to justify establishment of knowledge exchange forum.

Tanzania can play part by sustaining innovations and initiatives on FSM to show case off-grid sanitation and financing mechanism along sanitation service chain as well as demonstrating effectiveness of the established institutional framework and country dialogue mechanism. The National sanitation week/conference marks a good starting point.

FSM5 and AfricaSan5 have built momentum towards attaining SGDs. Sanitation services as a chain touches interest of stakeholders beyond ministries/utilities/NGOs. Thorough stakeholders' analysis is required to inform policy development so as to succeed in FSM. It should be known that FSM knowledge and

information is scarce therefore mechanism for knowledge exchange and information sharing ought to be established.



FIGURE 6: LOGO OF THE MOHCDGEC CAMPAIGN "NYUMBA NI CHOO"

2.4.6. QUESTIONS AND ANSWERS

Questions 1: What plans does Tanzania have to continue what has been established in the workshop?

Answer: Forums like these are the ones that can sustain what was established.

Question 2: Are there any strategies to reach the remote areas? Are there any strategies to ensure the safety of the small-scale pit emptiers?

Answer: There is still a lot to be done in this sector and it will not happen all at once. Education is needed for both clients and service providers. For instance, any one building a toilet should know that the sanitation chain does not end at the containment system. The campaigns should continue beyond "Nyumba ni Choo" (which is limited to the Toilet system) to FSM.

2.5. UPDATES FROM DAR ES SALAAM WATER AND SEWERAGE AUTHORITY

This presentation was done by Mrs. Neli Msuya from DAWASA who was talking about off-grid sanitation services. She started by explaining that until April, 1997 water supply services in Dar es Salaam were provided by the National Urban Water Authority and Sewerage services were provided under the Dar es Salaam City Council Sewerage Services Department (DSSD). Then wastewater treatment facilities were handed over to DAWASA. This included 190km of piped sewer system, 9 wastewater stabilization ponds, a screen house and a 1.01km sea outfall. Between 2003 and 2018 services were provided by two Utilities which were asset holder and operator (DAWASCO and DAWASA). In September, 2018 the functions of DAWASA and DAWASCO were combined to form the new DAWASA.

2.5.1. THE PROPOSED WATER SUPPLY AND SANITATION ACT, 2018

According to Section 20 the functions of a WSSA shall be to:

- Provide water supply and sanitation services for uses as required by the Act or any other written law dealing with the management of water resources, water quality standards and the environment.

- Secure the continued supply of water for all lawful purposes by continuously treating the water and monitoring the quality of water supplied at such times and in such a manner as may be prescribed in the water quality standards or regulations made under the Act.
- Develop and maintain waterworks and sanitation works.
- In consultation with relevant authorities protect and maintain water sources;
- Advise the Government in the formulation of policies and guidelines relating to potable water standards.
- Plan and execute new projects for the supply of water and the provision of sanitation.
- Educate and provide information to persons on public health aspects of water supply, water conservation, sanitation, and similar issues.
- Liaise with relevant government authorities on matters relating to water supply and sanitation and the preparation and execution of plans relating to the expansion.
- Collect fees and levies including any regulatory levy for water supply and sanitation services supplied to consumers by the water authority.



FIGURE 7: MRS.NELI MSUYA PRESENTING ON BEHALF OF DAWASA

2.5.2. DAWASA WASTEWATER IMPROVEMENT PLANS

There are two major improvement plans namely:

- Construction of new sewer lines at Masaki, Ilala, Kurasini, Temeke, Magomeni, Manzese, Ubungo, Sinza, Mwananyamala, Mbezi Beach, and Kawe.
- Construction of wastewater Treatment Plants in Jangwani (200,000 m³/d), Kurasini (31,000 m³/d) and Mbezi Beach (11,000 m³/d).

Consultants to undertake Environmental and Social Impact Assessment studies for the treatment plants have been engaged.

2.5.3. ROLES AND RESPONSIBILITIES IN FSM SERVICE PROVISION

The following are the entities and the description of their duties:

ENTITY	DESCRIPTION
DAWASA	Legal entity vested with the responsibility of WSS services in the City of Dar es Salaam and some parts of the Coastal Region
EWURA	Regulates DAWASA functions
NEMC	Oversees compliance to environmental standards
National/International NGOs & CBOs	Support community on Behavioral change, basic health, hygiene and sanitation practices. Support innovations on alternative emptying technologies
Private Enterprise	Manages public toilets and operates FS emptying and conveyance business
Households/ customers	Containment of FS/WW

2.5.4. OFF GRID SS & FSM OVERVIEW

In off grid sanitation services: The Construction and management of containment facility is a responsibility of individuals. The case applies to containment facilities which include pit latrines and septic tanks. The Municipal Council oversees standards, legal and regulatory affairs.

FS transportation and disposal: FS Emptying is done by private service providers at house owners' expense. FS Emptying techniques range from manual, flood-flush, small vacuum pumps and tanks and motorized vacuum trucks. Transportation to available disposal treatment facilities is done by private service providers. Transportation costs depend on distance from the dumping site.

Fs disposal and treatment: There are 9 Oxidation Ponds of which efficiency can be rated as average. Two of the ponds are used for FS disposal: Kurasini and Vingunguti. Dumping in the other three ponds Mabibo, Mikocheni and Buguruni was suspended following their proximity to residential settlements. An average of 250 – 300 trucks disposes FS to the ponds daily. The cost for dumping FS is Tsh. 6,000 (30 USD) for 0 – 6,000Lts truck and Tsh. 10,000 (50USD) for 6,000 truck and above. On average about 2,520 m³ of FS is deposited to the two dumping sites daily

2.5.5. CHALLENGES FACED BY DAWASA AND PROPOSED WAY FORWARD

Some of the general challenges DAWASA encounter in the course of providing Wastewater & Faecal Sludge management in the City Include:

- Limited available coverage of WW collection network and high capital investment costs.

- Old and insufficient infrastructure.
- Low level of customers’ willingness to pay for the service.
- Deposition of unwanted materials and chemicals in the systems causing clogging and low performance of the system especially the WWP.
- Limited access to customers’ residents due to poor urban planning.
- Rapid growth of the population as compared to the pace and capacity of WW infrastructures investments.

TABLE 1: CHALLENGES FACED BY DAWASA AND MITIGATION MEASURES

Level	Challenges	Solutions
Containment	<ul style="list-style-type: none"> • Unsatisfactory advocacy for improved pit latrines (substructures) • Disposal of solid wastes and chemicals in latrine pits 	<ul style="list-style-type: none"> • Advocacy for pit latrines standards (sub-structure) • Advocacy for proper use of pit latrines
Transportation	<ul style="list-style-type: none"> • Unsafe and illegal sludge dumping • High cost of safe emptying and transport facilities • Limited access to containment sites (urban planning) • Failure to meet hygienic FS handling standards 	<ul style="list-style-type: none"> • Introduction of regulatory mechanism • Introduction of regulated transportation Price • Disposal site construction • Assurance of provision of Quality of service (hygiene)
Treatment	<ul style="list-style-type: none"> • Overloading of FS treatment facilities • Presence of corrosive chemicals (interference with the biological process) • Presence of solid wastes 	<ul style="list-style-type: none"> • Improvement of existing treatment facilities through Operations and Maintenance • Control of sludge quality prior to disposal • Construction of mechanical sludge digesters with FS dumping option

In creating an enabling environment, the following measures can be taken:

Software support: Creation of FSM social marketing and community development, FSM enterprise development and t FSM communication and marketing campaign.

City-level support: putting down a detailed citywide survey and project design, setting By-laws and regulatory development and conducting Environmental Health Officers’ training.

National-level: There should be support in planning and policy implementation as well as building and operating public toilets.

Mrs. Msuya concluded her presentation by calling every stakeholder of FSM to create awareness on construction and proper usage of pit latrines, proactively involve private sector in the FS business chain

and to enforce existing bylaws and regulations through the FS management chain, she posed a question whether it is the right time to think about introducing a sanitation levy in water tariffs.

2.5.6. QUESTION AND ANSWERS

Question 1: What is the time frame for the DAWASA water improvement plans?

Answer: It is not easy to mention the time frame as the constructor has not been secured and contracted, however the preliminary steps has already started and ESIA is in progress.

Question 2: Are there any plans to involve the small-scale pit emptiers?

Answer: Mrs. Msuya responded by mention the plan to establish the Alliance for pit emptiers.

Question 3: Apart from the major mentioned projects, are there other designated areas from small projects?

Answer: Yes, there are open lands that have been designated by the government. In the case that there is a favorable area for the project but it is privately owned, the government can buy it. Mrs. Msuya Pointed out they are ready to receive recommendations and advice from different stakeholders of FSM.

2.6. WATERAID: ROLE OF RESEARCH IN SANIATION AND HYGIENE

2.6.1. SANITATION AND HYGIENE RESEARCH IN BABATI TOWN

Mr. Joseph Banzi from WaterAid did a presentation on the role of research in sanitation and hygiene plan on behalf of Mr. Ibrahim Kibole. His presentation based on the sanitation and hygiene research that was done in Babati Town in cooperation with Nelson Mandela University. Babati is one of the implementation towns of the National Sanitation Campaign.

The research to be presented in this workshop is titled “**Achieving universal access to adequate, sustainable and equitable sanitation and hygiene services in the cities of tomorrow**” which was jointly implemented by Nelson Mandela African Institution of Science and Technology (NM-AIST), WaterAid Tanzania, Water-AID UK, Babati Water and Sanitation Authority and Babati Town Council (BTC) in the period of 2016 – 2018.

The aim of the research was to understanding the households and institutions’ motives to invest in and improve sanitation and hygiene practices, the risks that drive behaviour change and the determinants of success in designing and implementing an inclusive sanitation and hygiene plan. The second part was to support the development of the Babati town-wide sanitation and hygiene adaptive model/guide that promotes inclusive, sustainable and affordable hygiene and sanitation services for all.

The Methods used for this research was House Hold survey questionnaires, Focal Group Discussion, Political Economic Analysis tools, Spot Check and structured observation, simple questionnaire in Open

Data Kit Collect Software (ODK), Trained Ward and Street Executives, Health Officers, CDOs, and Mapped sanitation types in 8 wards of Babati town.

The Key Findings from the Research are as follows:

- About 95% of the households owned latrines.
- Households which owned latrines were 62% while only one third (33%) owned flush/pour flush latrines.
- Management of wastewater depends on onsite sanitation systems composed mostly of septic tanks and pit latrines.
- Although sanitation coverage of Babati is high (95%) an analysis done using Shit Flow Diagram (SFD) indicates that **69%** of all sludge produced by the various types of sanitation in Babati is currently NOT safely managed thus exposing people to health risks.
- Only 31 % is safely managed. SFD covered 100% of all households in BTC
- 46% people wash their hands with soap after defecation and other different moments including before eating (66.2%), majority being women.
- 94% households do not have dedicated handwashing facilities with soap and water closer to the toilet or in the kitchen.
- Only 24% of customers who attended public toilets in Babati town washed their hands after using the toilet.
- Hand washing practice was more common among women than men.

Motivation and Barriers for Investing in Hygiene:

The main motives of having improved sanitation or using a clean latrine were identified to be enforcement of existing rules and regulations; fear of diseases; and a need to have a safe environment. Motives for proper handling of the faecal sludge includes fear of catching diseases and feeling ashamed if the latrine is full and is still in use. The main barrier of not using the vacuum tankers or emptying services was identified as the common practice of constructing temporary latrines and abandoning them once they are full. The main motivation for washing hands with soap was to be clean, free from dirt in hands, respected and prevent diseases like diarrhoea. Laziness, unavailability of soap and hand washing facilities and an individual's attitude were major barriers.

Implementation of selected scenario:

Selected scenarios were subjected to a discussion on the way they will be implemented. Factors used to elaborate the chosen scenario were funding, community engagement, institutional arrangement; private sector participation and incentives; alignment with Babati Master plan as well as operations and maintenance, an action plan suggested by the Participants which would eventually result in a business venture document and various reports. The Coordinating Committee formed around Babati Town Council (BTC) will work on developing a business proposal and the implementation of the action plan and work to mobilize the necessary financial resources for this purpose.

Contribution to master planning process: It is important to note that during the execution of the research there was an ongoing process for Spatial Master plan development of Babati Town Council. The findings from the research contributed into the master plan especially in the sanitation part.

Conclusions:

The inclusive and participatory process used in this study has provided a better understanding of the challenges and opportunities facing sanitation and hygiene planning for Babati. Through the results of this study, types and distribution of sanitation facilities, motives and barriers to hygiene practices, motives and barriers to investments for sanitation have been understood and shared with Babati residents. Sanitation and hygiene options for Babati Town Council have been developed during scenario planning and they are ready for implementation.

2.6.2. QUESTIONS AND ANSWERS

Question 1: Is there a dumping site in Babati?

Answer: In Babati there is no dumping site, 31% of the FS is safely contained.

2.7. CURRENT FSM PROJECTS COORDINATED AND IMPLEMENTED BY BORDA

2.7.1. CURRENT PROJECTS

Mr. Deogratus Leonidas Bernado presented on behalf of BORDA: BORDA implemented four FSTPs in Dar es Salaam: Kigamboni, Mlalakuwa-Kinindoni, Mburahati-Ubungu and Wailes-Temeke. The construction of these project sites is finalized. One is fully operational, two are partly operational and one is in the startup phase. The main challenge that this project is facing has been getting entrepreneurs to invest in the business. On the other hand, those who are willing to get into the business face challenges in getting startup equipment - financial institutions do not acknowledge the sector as a fiscal business hence reluctant in investing in it.

Currently BORDA is focusing on developing improved operational models for three of these FSTPs. BORDA is testing a centralized management system for the three decentralized FSTPs. All financial data are collected and analyzed to develop realistic business models and evidence based policy recommendations. Within this project, BORDA is also testing and developing emptying and transportation equipment.

Besides the FSTPs in Dar es Salaam, BORDA is also implementing a FSTP in Iringa, which is in the final phase of construction.

BORDA is also focusing on capacity development for FSM. This is by providing trainings for all levels and by facilitating knowledge exchange on FSM.

2.7.2. QUESTION AND ANSWERS

Question 1: when people offer their land for the FSM projects, is proper research done to ensure that before they give their land they have realistic expectations?

Answer: It is important to differentiate between main project objective and by-products. The main focus is the safe disposal of faecal sludge, all other by-products are secondary. What BORDA does is to give proper explanation on how the structure works.

3. INTRODUCTION TO CURRENT FSM KNOWLEDGE EXCHANGE INITIATIVES

Mr. Tim Fettback from BORDA introduced the need of a FSM Knowledge Exchange Platform to enable:

- FSM Capacity Development through Knowledge Exchange
- Long-term, sector-driven knowledge exchange
- Fast availability of knowledge (information) which is not limited to any location (high accessibility)
- Improved Knowledge Management in FSM
- Connect FSM stakeholders

3.1. KNOWLEDGE EXCHANGE INITIATIVES IN THE TANZANIAN SANITATION

SECTOR – PRESENTATION BY ATAWAS

Mrs. Marta Kabuzya started with a basic introduction to knowledge exchange. Knowledge exchange is about taking a systematic approach to sharing tacit knowledge -- the knowledge that people acquire through their work experiences, successes and challenges around the world -- in order to directly support programmers, operations and advocacy. The main purpose of knowledge exchange is to connect practitioners (in any field or discipline) with each other so they can discuss their work, learn from one another -- and achieve improvements in results. Sharing knowledge, especially experiential knowledge, is a key ingredient in innovation. Knowledge exchange is essential to achieve continual learning from experience and apply that learning to improve our work. The benefits of knowledge exchange include savings of both time and money, and improvements in effectiveness -- including capacity to develop new and better approaches to overcome challenges.

Mrs. Kabuzya presented on the tools that enable knowledge exchange and emphasized the approach of selecting the tools according to the purpose or aim of the process. The tools are summarized in the following table.

TABLE 2: TOOLS FOR KNOWLEDGE EXCHANGE

Purpose/aim of the process	In Person	Online
Stimulating creativity, generating new ideas	Workshop	Online jam: text based, group convened at fixed time, images & files can be attached. Can be internal (e.g Yammer) or external (e.g Twitter)
Learning and sharing lessons within groups	Seminars, Workshop, Conferences	E-discussion: text based, discussion over days/weeks, participants contributing on their own schedules
Learning from experts	Seminars, Trainings Expert interview with audience: Radio, TV	Webinar: audio-visual presentation, fixed time Online jam: ask me anything version

	Chat shows	
Learning BEFORE a project/ initiative	Workshop	Online Communities Virtual Peer Assist: Hold a single focused learning event online Surveys
Learning DURING a project/ initiative	Workshop	Online Communities Virtual Peer Assist
Learning AFTER a project/ initiative, or at major moments of reflection	Conference, Meetings, Workshops	Surveys: Efficient capture a selection of lessons from large numbers of individuals
Developing and improving a shared practice or area of work		Online Communities

In Tanzania the water and sanitation sector is currently utilizing the following platforms for knowledge exchange:

- Conferences: Annual Water conference, Maji Week Scientific Conference, Sanitation Week Conference
- Exhibitions: During Maji week celebrations, conferences and annual days
- Water sector forums: MoW Thematic Working Groups, JSM, JWSSM
- Seminars and Workshops: facilitated e.g. by BORDA or Waste Water Solutions
- Trainings, Study visits
- Specific Meetings: Regional WASH meetings (quarterly) and AGMs of organizations (TAWASANET, EWURA, ATAWAS, etc.)
- Websites, social media, blogs, radio, TV, newspapers, magazines and newsletters

3.2. INTRODUCTION TO THE SUSTAINABLE SANITATION ALLIANCE

Ms Evelyn Herrera from BORDA presented what the Sustainable Sanitation Alliance (SuSanA) does and how it is useful for FSM stakeholders.

SuSanA is a knowledge exchange platform established in 2007 for people and organizations who share a common vision on sustainable sanitation. The SuSanA website connects people with different expertise and opinions and contributes to policy dialogs through publications, meetings and other initiatives. For this it provides services as working groups, discussion forums, webinars and a comprehensive library (e.g. for dissemination and finding of publications). The SuSanA secretariat is located in Eschborn, Germany. This is run by the Sustainable Sanitation Programme, from the Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, Germany, and has been funded by the German Federal Ministry for Economic Cooperation and Development (BMZ).

Compared to neighbouring countries (e.g. Kenya and Uganda) Tanzania’s participation in SuSanA is still very low. In the global comparative, there is a need to increase the participation of all East African countries in the SuSanA network. This might be achieved by the creation of an East African Chapter, which filters knowledge relevant for this region. In addition, to enhance progress in FSM, it could be thought of creating a working group which is fully dedicated to FSM.

3.3. REFLECTING THE 3 CITY KNOWLEDGE EXCHANGE

Mrs. Tina Eisele from GIZ presented on the 3 City Knowledge Exchange workshop which was facilitated in December 2018. The objective of the workshop was to exchanging experiences on Faecal Sludge Management and On-Site Sanitation (OSS) among key stakeholder from Lusaka, Kampala and Dar es Salaam. The 48 participants were representatives from policy makers, regulators and implementers. The workshop was facilitated by GIZ with the support of BORDA.

Day 1- Presentations, discussions, working groups: This day was setting the scene differentiating between Centralized and decentralised sanitation, On Site and off site FSM. Examples for OSS and FSM from Dar es Salaam, Lusaka, and Kampala were given. Business models and financing of sanitation were presented form the 3 countries. The group works focused on financing of decentralized sanitation discussing the role of different actors (Implementers, Policy Makers, and Regulators)

Day 2 – Field Visit: First Kigamboni FSTP was visited. This treatment plant is privately operated. Here FSM was demonstrated along the value chain, from pit emptying, faecal sludge transportation, to treatment and reuse/disposal. The second site was Mburahati FSTP which is located in the community and publically owned, but privately operated.

Day 3 – Presentations, discussions, working groups: There was a discussion on FSM and the role of municipalities, the role of sanitation mapping and how can GIS data be used for evidence based decision making.

The major lessons from this workshop were:

- There is a similar situation in all 3 countries
- There was better understanding of OSS and FSM – and the respective roles of stakeholders
- The participants gained Practical experience form field visits
- There was an open environment to discuss what worked and what didn't
- It was a chance for Networking with sector colleagues
- There was Interaction and exchange also in the future

3.4. DISCUSSION ON APPROPRIATE KNOWLEDGE EXCHANGE INITIATIVES FOR TANZANIA

During the discussion the opportunities and challenges of knowledge exchange initiatives were discussed. Among others it was highlighted that:

- FSM is a new topic for all sanitation stakeholder and knowledge exchange will assist to address the challenges the sector is facing
- Knowledge Exchange requires the commitment of every participant
- Costs for knowledge exchange can be very low, but need to be covered (e.g. a person in charge to update the SuSanA Platform)

- An organization needs to be identified that will be the moderator of the Knowledge Exchange Platform. This could be ATAWAS or TAWASANET.
- The owners of the platform will be the FSM sector stakeholders who also are the users
- The newly developed knowledge exchange platform shall integrate in the currently available initiatives
- A new knowledge exchange platform needs a committed organization to start it, and to then hand it over to the sector. It will take time till all relevant stakeholder are motivated to use and to contribute to such a platform. Such an organization could be BORDA.
- The language used in the platform could be challenging, as for many stakeholder Swahili is the main language.
- An online knowledge exchange platform will have its limitations as there are sector stakeholders with limited access to internet
- Currently much information is shared over WhatsApp groups. This information is spread fast, but is not structured and not available for long time. If WhatsApp (or a similar messenger) is used as a tool, there must be a moderator, who files relevant documents and conversations, to make them long-term accessible.
- The quality of the information shared must be controlled. This works in an open platform by having active members who comment on uploaded information.
- In chats (e.g. on SuSanA), a moderator needs to motivate the respective experts to contribute to discussions.

4. SETTING UP FSM WORKING GROUPS

For detailed analysis on current FSM challenges and to develop solutions for these identified challenges working groups were to be established. Within the Kick-Off workshop these was done in a series group works and discussions.

4.1. IDENTIFYING THE GAPS IN THE ENABLING ENVIRONMENT THAT LEAD TO CHALLENGES IN FSM

The general purpose of the first group work was to identify and address gaps in the enabling environment that lead to challenges in FSM. This was addressed as follows:

- 6 groups as per the enabling environment were formed
- Each group had to reach a consensus on the challenges facing their specific enabling environment
- Each group was supposed to suggest two topics that can be addressed within the timeframe of the “FSM Capacity Development for DAR” project
- Each group presented the challenges and the two topics for audience to provide inputs.

The output of the group work is presented in the following table.

TABLE 3: OUTPUT OF FIRST GROUP WORK - IDENTIFY CHALLENGES WITHIN THE ENABLING ENVIRONMENT AND DEFINE TOPICS THAT NEED TO BE ADDRESSED TO SOLVE THESE CHALLENGES

Enabling Environment	OUTCOME	
Government support	Role of government	<ul style="list-style-type: none"> • Sectoral coordination • Formulation of policy, guidelines, legal aspects, and institutional arrangements • Allocation of land and provision of land use plan • Law enforcement and political willingness
	Challenges	<u>Capture(containment)</u> <ul style="list-style-type: none"> • Lack of enforcement of standards • Lack of prioritization campaigns • Lack of sustainable and effective approach • Insufficient knowledge
	Topics	<ul style="list-style-type: none"> • Capacity building and awareness creation at government level • Technology options and standard FSM delivered materials • Introducing sanitation levy
Legal Framework	Challenges	<ul style="list-style-type: none"> • Financial constrains especially in the public area, there is no funds for sanitation • No training for emptiers as well as certification • Lack of FS handling regulation safety and health • Free markets cause varying fees for emptying • Lack of urban sanitation master plan

Enabling Environment	OUTCOME	
		<ul style="list-style-type: none"> • No standard for transport technology • No safety guideline (along the entire FSM chain) • No existence of discharge decentralized treatment system • No regulations for FS application in agriculture field • No regulations for waste water reuse • Even though the current policies advocate for proper management of wastewater and faecal sludge, in the practice, sanitation sector is limited to the provision of toilets. • Among the sanitation value, chain the only steps clearly defined and regulated is the capture and the containment.
	Topics	<ul style="list-style-type: none"> • Analyze the existing regulation and identify the gaps throughout the sanitation chain.
Institutional arrangement	Challenges	<ul style="list-style-type: none"> • The roles and responsibilities of LGA, NGOs, Ministries and private sector are not clear. The policy and legislation might be clear but understanding and the application is challenging • Enforcement of the legislation is difficult due to unclear understanding
	Topics	<ul style="list-style-type: none"> • What are the roles and responsibilities according to legislation? How are roles and responsibilities distributed currently? • How can the gap between the legislation and the reality be visualized? • What can be the optimal solution?
Skills and Capacity	Challenges	<ul style="list-style-type: none"> • Inadequate education on FSM • Confusion or contradiction between FSM and waste water management since FSM is a new concept • Inadequate expertise in toilet structure, containment construction, emptying equipment especially of new technology in pit emptying as well as planning and designing FS treatment facilities
	Topics	<ul style="list-style-type: none"> • How to formalize informal pit emptiers and capacitating them with skills and provide equipment • Capacitating FSM experts on operation and maintenance
Financial arrangement	Challenges	<ul style="list-style-type: none"> • Sanitation is not given a priority • Lack of sufficient funds due to poverty and low income • Poor recognition as a business • Cost of investment vs expected return • Law enforcement Vs Financial arrangement • Unfair competition vs conflict of interest
	Topics	<ul style="list-style-type: none"> • Who is responsible to make financial arrangement for FSM? Is it a tenant or a landlord?

Enabling Environment	OUTCOME	
		<ul style="list-style-type: none"> • How to make sanitation services a business? • How to finance sanitation business?
Social cultural Acceptance	Challenges	<ul style="list-style-type: none"> • Lack of awareness on FSM • Lack of knowledge on latrine design • Space limitation • Lack of social cultural behavior change through learning culture
	Topics	<ul style="list-style-type: none"> • Awareness creation on FSM value chain from primary to university • Promotion of sanitation products in the entire sanitation chain

The topics listed above were clustered to the thematic areas of:

- Capacity Development on FSM for specified target groups
- Stakeholders Analysis (Roles and Responsibilities)
- Formalizing informal systems (e.g. Pit emptiers)
- Optimized FSM technologies
- Standards for effluent and FSM by-products
- Financial Arrangements (Sanitation Levey, Business options, Subsidies)
- Analysis of the Legal Framework for FSM
- Knowledge Exchange Platform

Capacity development on FSM was removed as a separate topic, because this is covered by all topics (the overall topic for the project is FSM capacity development) and especially addressed by establishing a Knowledge Exchange Platform. Formalizing the informal sector was seen as part of stakeholder analysis, financial arrangements, and also optimized technologies (e.g. safe pit emptying technologies), and thus it was also removed from the list. The analysis of the legal framework was seen as partly covered by stakeholder analysis and standards for effluent and FSM by-products. Doing a full analysis of the legal framework was agreed to not be feasible within the time constrains of this project. Thus the following five topics were selected to be further discussed during within the working groups:

- Stakeholders Analysis (Roles and Responsibilities)
- Optimized FSM technologies
- Standards for effluent and by-products
- Financial Arrangements (Sanitation Levey, Business options, Subsidies)
- Knowledge Exchange Platform

4.2.DETAILED PLANNING OF THE WORKING GROUPS

In the second group work all participants were free to attend the detailed planning of one working group. Each group was led by a BORDA representative. The outcome of the working groups is presented below.

TABLE 4: OUTPUT OF SECOND GROUP WORK - DETAILED PLANNING OF THE SELECTED FIVE WORKING GROUPS

TOPIC	FOCUS AREAS	GROUP FINDINGS	
		POTENTIAL PARTICIPANTS	EXPECTED OUTPUT
Financial arrangements	<ul style="list-style-type: none"> • Business opportunities in FSM • Subsidies to support FSM • Sanitation levies in water tariffs 	<ul style="list-style-type: none"> • Financial institutions • Utilities- DAWASA • Regulatory- EWURA • LGAs • NGOs • Funders • Private sector 	<ul style="list-style-type: none"> • Increase of private sector investment in FSM • Regulation of the sanitary tariffs • Improved standard of sanitary services and coverage, • Immediate outcome: A proposal on how to make FSM a fiscal business. • Meeting: Once per month
Stakeholders analysis	<ul style="list-style-type: none"> • Stakeholder mapping • Reviewing legislations (roles and responsibilities) 	<ul style="list-style-type: none"> • Vice Presidents Office • NEMC • LGAs • MoW • MoHCDGEC • MPs- Health committees • DAWASA • NGOs • EWURA • Academia • Private sector (emptiers) 	<ul style="list-style-type: none"> • Stakeholders mapping • Review of the existing guiding documents • Identifying the gaps in the institutional framework and find solutions • Documentation <p>Immediate output: Stakeholders' matrix Meeting: once per month</p>
Standards for FSM	<ul style="list-style-type: none"> • Effluents • Byproducts 	<ul style="list-style-type: none"> • NEMC • TBS • Research institutions like Universities- (Ardhi, UDSM, SUA, NM-AIST), IHI, MITU, NIMR, COSTECH. • Ministries 	<ul style="list-style-type: none"> • Identifying areas for attention • Identifying the existing standards • Identifying research gaps • Identifying standard treatment technology • Meeting: once per month.

TOPIC	FOCUS AREAS	GROUP FINDINGS	
		POTENTIAL PARTICIPANTS	EXPECTED OUTPUT
		<ul style="list-style-type: none"> UN agencies- WHO, UNICEF, FAO, UNEP 	
Optimized technical solution for FSM	<ul style="list-style-type: none"> Emptying equipment Transportation Treatment options Solid waste management 	<ul style="list-style-type: none"> DAWASA EWURA SIDO Research institutions MoW MoHCDGEC BORDA Municipals 	<p><u>Emptying equipment</u></p> <ul style="list-style-type: none"> Service coverage to planned and unplanned areas Standard of emptying equipment Simplified sewer containment for inaccessible areas <p><u>Transportation</u></p> <ul style="list-style-type: none"> Standard of design that don't spill Enforcement of truck registration <p><u>Treatment plants</u></p> <ul style="list-style-type: none"> Awareness creation on FSM technology Authority to monitor FSM <p>Meeting: once per month</p>
Knowledge Exchange	<ul style="list-style-type: none"> Create WhatsApp group as an intermediate mobilization tool and knowledge exchange platform. In the group all stakeholders must be participants. The discussions must be in Swahili, otherwise the participation will be limited to few people. All the discussions, documents shared, etc. must be uploaded into the SuSanA webpage as a final documents' repository. TAWASANET is highly active in collecting information related to 	<ul style="list-style-type: none"> GOVERNMENT EWURA Research institutes LGAs MoW DAWASA BORDA WSSAs Municipal Councils TAWASANET ATAWAS Private sector 	<ul style="list-style-type: none"> Creating awareness on FSM Make sure that at least the participants of the knowledge platform have a SuSanA account. Registration of FSM service providers Updating SuSanA Library with regulations, policies and standards specific for Tanzania Conduct a two days workshop with all stakeholders to wrap up the information exchanged through the Whatsapp group

TOPIC	FOCUS AREAS	GROUP FINDINGS	
		POTENTIAL PARTICIPANTS	EXPECTED OUTPUT
	water and sanitation. According to Maud from PDF, every year one member is in charge of data collection. TAWASANET could be interested to be the custodian of the knowledge exchange platform or the intermediate group on WhatsApp. <ul style="list-style-type: none"> • To create awareness to politicians and LGAs • Establish a platform where knowledge exchange can be done 		and define the way forward for the knowledge exchange. Meeting: once per month

During the presentation and discussion it was agreed to have three meetings for each working group. It was also agreed, that the expected output needs to be refined before starting the working groups, so tangible outputs can be achieved within the timeframe. Furthermore, the participating organizations are supposed to identify representatives within their entity, who will participate the different working groups. It was observed that the participation of several stakeholder might be necessary in all working groups. This will cause high commitment and a big investment of time. Nevertheless, the participants were positive that this will be feasible. It was also observed that the participation of the same person at all three meetings will be of high importance (thus to avoid that participants are not informed on what happened I the meeting that proceeded). Also an active exchange between the different working groups was pointed out as beneficiary: the outcomes of certain working groups might serve as basis for the work of other working groups.



FIGURE 8: PRESENTATION OF THE GROUP WORK AND DISCUSSION OF THE RESULTS

5. CONCLUSION

The workshop was closed by Willem van Rheenen (Regional Director of BORDA Africa) who thanked all the participants for their full participation in this workshop. He mentioned that this is only the beginning of the journey towards safe FSM. He urged the working groups to utilize this opportunity to come up with outputs that will benefit all the stakeholders of FSM.

Appendix

TABLE 5: LIST OF PARTICIPANTS

Organization:	Name:	
DAWASA	Neli	Msuya
	Charles	Makoye
	Lilian	Masilango
MoW	Jackson	Mutasamba
	Mansour	Mandemla
MoHCDGDEC	Selemani	Amour
	Salvata	Silayo
Regional Commissioner's Office Dar es Salaam	Denis	Kamzola
Municipal Council of Ilala	Upendo	Omari
Municipal Council of Kigamboni	Alex	Odena
	Sixtbert	Kyaruzi
Municipal Council of Ubungo	Mary	Kway
	Kawa	Kafuru
	Josephat	Rwilmera
Municipal Council of Temeke	Paul	Wanau
	Baraka	Mafolo
	Gladness	Malisa
Municipal Council of Kinondoni	Fredy	Ernest
	Teresia	Ndunguru
	Gladness	Malissa
Ardhi University	Jacob	Kihila
UMAWA	Mathias	Milinga
TAWASANET / SAWA	Judica	Upendo
ATAWAS	Martha	Kabuzya
	Constantino	Chiwaligo

Organization:	Name:	
Ifakara Health Institute (IHI)	Beda	Levira
Centre for Community Initiatives (CCI)	John	Samwel
Peoples Development Forum (PDF)	Moude Elias	Le Boulh Kazingoma
GIZ Tanzania	Tina Ruhumbika Felix	Eisele Malibwa Minor
Human Development Innovation Fund (HDIF)	Erick	Massinda
Water Aid	Joseph	Banzi
ACRA	Deogratius	Kapongo
SNV	Hezron	Magambo
BORDA	Oscar Bella Tim Joyce Deogratius Evelyn Godlove Modekai Willem Anodi	Mbekenga Ayugi Fettback Musira Bernado Herrera Ngoda Sanga van Rheenen Mdindikasi
Minute Taker / Independent Consultant	Nyange	Heavencia