INNOVATE 4 WATER
MARKET-PLACE FORUM

Acacia Hotel, Kisumu Kenya | 06 - 08 February 2019

Forum Proceedings Report

QUERCUS GROUP

WATERPRENEURS

Report produced by:
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ABSTRACT

This report gives a comprehensive summary of the proceedings, key conclusions and evaluation of the 3rd Innovate 4 Water Forum, which took place at the Acacia Hotel in Kisumu, on 6th and 7th February 2019. The forum was made possible by a collaborative team comprised of Quercus Group and Waterpreneurs. The event was endorsed by Kenya National Government, Kenya Vision 2030 and Water Service Providers Association (WASPA). Event sponsors include Aqua for All (Gold sponsor), USAID KIWASH (Bronze Sponsor). Other supporters were WSUP (Water and Sanitation for the Urban Poor), Practical Action and Apex Steel.
The aim of the forum was to further explore the role of both public and private sectors in providing innovative solutions to the water sector, in Kenya and the Eastern Africa region.

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I. BACKGROUND

Water is vital to life itself, and critical to sustainable economic growth and human development. Water resources touch every aspect of the human condition including food security, health, environment, infrastructure, national security, energy, and education. Ensuring access to water and sanitation for all is one of the United Nations' 17 Sustainable Development Goals, Goal 6 (SDG6). Achieving Goal 6 is quite critical, if we are to meet all the other SDGs.

Providing;

1. Clean, safe water for drinking and cooking and 'improved' sanitation are essential to health.
2. Efficient water use and greater storage capacity will enable among other activities; greater agricultural production and make zero hunger possible.
3. Ensuring that there is adoption of sustainable wastewater treatment and pollution technologies and solutions to protect life on land and in water.
4. A sustainable water supply that ensures there is continuous production of affordable, clean energy, industrial development, decent work, and economic growth, and the elimination of poverty.
5. Ensuring water is available to all, is necessary to achieve equality based on gender and other factors, and to prevent conflict and preserve peace.

The UN 2030 Agenda rightly places the private sector to drive sustainable development, for the good of the people, the economy and the planet.

The Private sector can make huge contributions and investments into developing innovative technologies and business models to tackle the sustainable development challenges while also increasing competitiveness, creating jobs and promoting sustainable, inclusive economic growth in the country.

There are endless opportunities for business to engage in responsible water stewardship. For the private sector, engaging in sustainable water stewardship is both vital to continuing business operations and integral to responsible business conduct. Every business depends on and impacts water resources.

II. EXECUTIVE SUMMARY

2.1 A marketplace forum for sustainable solutions and innovations for Urban Water and Sanitation

Under this banner, Innovate 4 Water Forum has engaged in, not only facilitating information-sharing on Water Sector reforms and innovation, but also offering an ideal platform for entrepreneurs in the sector to reach a targeted audience of potential impact investors. These investors include clean-tech venture capitalists, private equity firms, financial institutions and other corporate investors. The substantive exchanges witnessed during the forum on key issues regarding the water sector in Kenya, and the East African region, served as a fitting follow-up to the 2nd Innovate 4 Water forum held in Nairobi, April 2018.

The Nairobi event sought to fulfil these key objectives...

- Gain an understanding of the policies, programmes, and interventions that the government has in place aimed at fostering positive action in sustainable water management;
- Showcase various innovations in the Eastern African Region market and the value they create within the water and sanitation sector;
- Facilitate an exchange between the sources and seekers of capital by offering organizations the opportunity to present, in time-limited segments, their mission, their value proposition, and other relevant information;
- Give presentations on the available sources of financing, and requirements;
- Showcase their areas of intervention, for those not directly involved in seeking capital and financing;
- Create partnerships geared towards sustainable water and sanitation management.

Organising team with closing plenary discussants *Photo: Anthony Nabiliki*

Sustainable development in the water sector remains a top agenda for Innovate 4 Water Forum. The two-day forum provided evidence of the benefits as well as the challenges / opportunities facing both investors and entrepreneurs in the water sector in Kenya.

Innovate 4 Water Kisumu is a 'home grown' initiative that seeks to build on lessons learned from the I4W Nairobi forum to provide a sustainable approach to addressing the need for innovation in the water and

sanitation sector not only in Kenya but the region as well through private sector engagement. Technology and innovation have been prescribed as the strategy to deliver this aspiration as an enabler to efficient water use, which thereby reduces the strain on the utility companies in the country.

Use of sustainable technologies and solutions is also recommended as a very good approach into which communities, urban centres, and governments can deal with the issues related to sanitation; these include, collection, transportation. There is also a need to develop and integrate innovative technologies which can address non-revenue water in small towns and peri-urban centres. These include technical and commercial and water quality and adaptive management, through real time data collection and management.

By nurturing 'home grown' solutions developed by local and regional innovators, the I4W Kisumu Forum sought to provide a platform which showcased cutting edge innovations by private sector and sought to address challenges that hinder uptake of the same.

Objectives of the Forum:

- Showcase the various innovations in the Eastern African Region market and the value they create within the water and sanitation sector;
- Facilitate an exchange between the sources and seekers of capital by inviting organizations the opportunity to present, intime - limited segments, their mission, their value proposition, and other relevant information;
- Create awareness in companies and private operators, through a half-day workshop, on the most effective ways to articulate their corporate vision in a way that is standardized and easy for sources of finance to quickly assess through typical due diligence processes;
- Inform the various of finance on the types of projects that are likely to be seeking finance and encourage the streamlining of their due diligence to enable seekers of finance to put their applications in front of a larger audience;
- Demonstrate the role of the private sector in achieving water security providing a new thinking and new ways for stakeholders to work together toward water security, bringing many of them out of their comfort zones in the process.

III. PREFACE

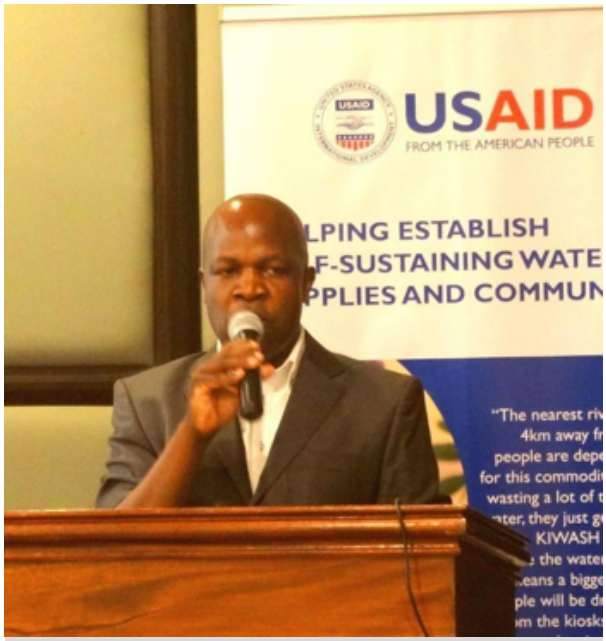
3.1 KEYNOTE ADDRESS

Delivered by: His Excellency Dr. Matthews Ochieng Owili
Deputy Governor Kisumu County

The Governor recognised the presence of key partners and stakeholders in the WASH Sector and welcomed them to Kisumu County on behalf of the Governor, Professor Peter Anyang' Nyong'o.

Dr. Owili encouraged the participants to feel at home and to stay on even after the conference. He expressed his pleasure in joining them during the Inaugural Conference of I4W Kisumu Marketplace Forum. He thanked the conveners of the forum for settling on Kisumu as the host city, citing that the City was privileged to be put in the same standing as Geneva, Zug, Abuja and Nairobi, that had hosted previous I4W forums.

The Deputy Governor stated that Kisumu was the only city in Kenya, with available raw water security beyond Kenya's Vision 2030; and that even though there was no serious threat to this resource, the County was taking every available measure to ensure that the resource was protected. Among the steps being taken to secure water as a resource was the process of eradicating water hyacinth that had infested Lake Victoria and was dredging the lake. Other natural resources included seasonal rivers, permanent rivers and very rich groundwater aquifers.



His Excellency Dr. Matthews Ochieng Owili
Photo by Allesandro Fusi

Dr Owili emphasised that these valuable natural resources would have to be utilised in a sustainable manner in tandem with the County's overreaching Vision to have a clean and healthy environment, supplied with quality water for domestic and irrigation purposes. The county had identified the following key objectives towards realisation of the vision for this sector:

- To improve access to safe water from 58% currently to 68% by the year 2022;
- To increase storage per capita per day from 8 litres to 25 litres by the year 2022;
- To reduce non-revenue water from the current 45% to 30% by the year 2021;

The County also continued to make deliberate attempts to reduce the distance covered by their people in search of clean and safe water from more than 2 kilometres to a desired distance of less than 200 metres, all across the County of Kisumu. As part of this, the County formulated an overall strategy to achieve rapid results in the water sector, while harnessing the huge water endowment that they enjoyed. For example, they had acquired a drilling rig, with a test-pumping unit and other supporting equipment to tap on the ground water potential.

The County had embraced internal innovative alternatives to accelerate service delivery in the next 5 years. They have pursued partnerships with WASH organisations, in the County and beyond, leading to a very vibrant WASH network, under the coordination of County cabinet member in charge of water, Hon. Salmon Orimba. The network had in September 2018 briefed the Governor on the milestones they had achieved in the sector on infrastructure development, pipeline extensions, hybrid water systems and the innovations that had been adopted and the efforts to improve services. He expressed their satisfaction,

as a County, in the work done by the WASH network.
Kisumu County's policy as a government favoured Public Private Partnerships, among other emerging alternative financing models, as a way of raising financing as the present frontier for rapid transformation of all sectors. Dr Owili hoped that the county would be able to identify more partners both within and outside the WASH network that they could work with. He was specifically concerned about non-revenue water which, at 45%, was above the international average of 40% in developing countries.

The Deputy Governor reaffirmed the county's full support and endorsement for the conference as it carried with it the opportunities needed for the future of Kisumu in the local context; nationally, regionally and internationally, in matters water, hygiene and sanitation.

Dr. Owili mentioned two specific projects, funded by the Conference Gold Sponsor, Aqua for all, which he had commissioned in the recent past, and expressed his gratitude to them on behalf of the County and people of Kisumu.

And with those few remarks, on behalf of the Governor and the people of Kisumu County, he declared the I4W Kisumu Market-place Forum officially open.

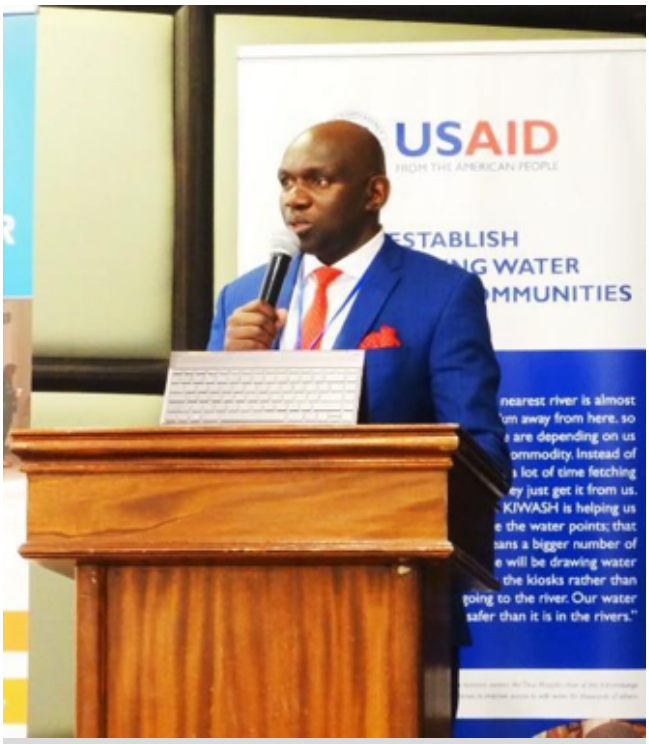
3.2 WELCOMING REMARKS

Antony Ambugo: Chief Executive Officer, WASPA

Playing the role of forum Master of Ceremony, Antony Ambugo, CEO WASPA, welcomed everyone to the forum and requested all the participants to introduce themselves and the organisations they were representing. This was followed by welcoming remarks from the County Executive Committee Member in charge of Water for Kisumu County, Honourable Salmon Orimba.

He went on to introduce the conveners of the forum, from Waterpreneurs, Quercus Group, and Water Services Providers Association, WASPA, which he was representing in his capacity as the CEO. Mr Ambugo also acknowledged the presence of both local and international participants.
He explained the role of WASPA, being the creation of an enabling environment for their members, the Water Service Providers across Kenya, and not the actual provision of water and sanitation services.

The CEO acknowledged the need for the country to achieve universal coverage in terms of safe water and sanitation, and that the government did not have the required funds to meet this expectation, with a budget deficit of approximately Kshs. 1.2 Trillion. Due to the upgrading of the Kenyan economy to middle-income, aid was no longer available, leaving commercial financing as the only viable option to bridge this deficit. The forum was therefore an opportunity to match-make the different groups of players in the water sector.

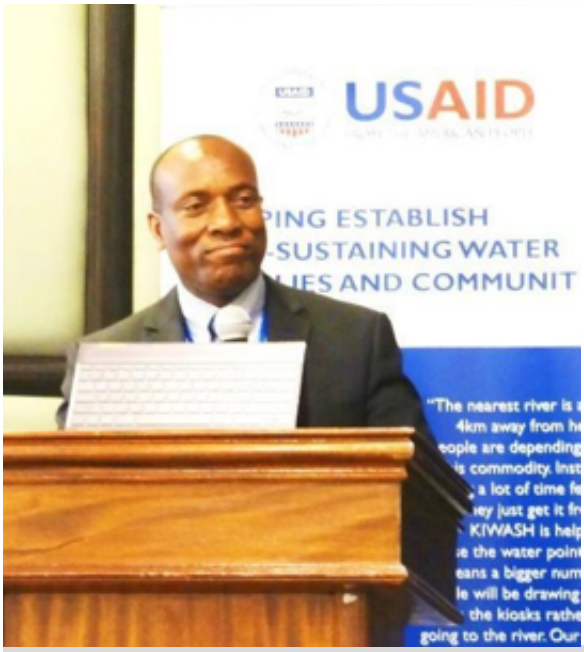


Antony Ambugo CEO WASPA
Photo by Alessandro Fusi

Honourable Salmon Orimba; CECM Water – Kisumu County Government

Mr. Orimba took this opportunity to welcome forum participants to Kisumu County.
He noted that the current water coverage for the County was at 58%; and that the rural sanitation and open defecation free coverage was at 37%; This ranked Kisumu at the 10th position among 47 counties. Sewerage coverage was at 18%.
He identified challenges affecting the WASH sector, which include:

- Low financing of WASH facilities;
- High non-revenue water;
- Old and dilapidated infrastructure;
- High operations and maintenance costs;
- Inadequate clean water storage capacity;
- Increasing population, which escalates demand for water.



Hon Salmon Orimba; CECM Water – Kisumu County
Photo by Alessandro Fusi

He acknowledged the support of the Kisumu County WASH Network forum, through which the following achievements had been realised:

- Water and Sewerage Policy done in 2018;
- The Water Bill, in progress, awaiting adaptation by the Executive at the County Assembly;
- The Environmental Health and Sanitation Bill, awaiting adaptation by the Executive and County assembly of Kisumu;
- Development of the Kisumu County WASH network forum website; with a dashboard of projects, needs and interventions.

He spelt out the key objectives that the County had given themselves in the WASH Sector:

- To improve access to safe water, currently standing at 58%;
- Increase storage per capita per day from 8 litres to 25 litres per day;
- Reduction of non-revenue water;
- Attainment of Kisumu rural open defecation by December 2019;
- Improved resource mobilisation facility and collaboration within WASH activities.
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The county had also within the sector, managed to connect water to several schools within the rural areas and had provided proper and structured sanitation facilities to them. He was optimistic that, with the WASH Network, the vision as spelt out within the manifesto of the Governor would be achieved within the next two years.

Thomas Odongo; MD – Kisumu Water and Sanitation Company, KIWASCO

Mr. Odongo welcomed the participants to Kisumu County. He noted that the Company had recently changed focus from sewerage to sanitation. KIWASCO was formed in 2002, following sector reforms, as per the Water Act 2002. It began operations in 2003. The managing director gave a highlight of the 15-16 years of operation of the company, placing emphasis on revenue management as the key focus of the organisation's growth.

As at the end of 2018, the company had achieved 78% of their coverage area, with supply throughout the 24 hours of the day. The company has two abstraction points: The Lake Victoria, at a place called Dunga, and at the River Kibos. At the abstraction points, two main challenges were faced: pollution, affecting the quality of the water; and water hyacinth, affecting the quantities abstracted.

Additionally, the quantities of abstraction at the river were affected by weather patterns. Water abstraction would reduce, and at times come to a complete halt, when water table fell due during the dry season.
KIWASCO's role is the provision of water and sanitation services within the area, with it's Vision "To be the Most admired Service Provider", and Mission "to provide quality water and sewerage (Sanitation) Services to improve livelihoods".

The Company's core values are: Integrity; professionalism; creativity and innovation; customer focus and teamwork and their slogan is, "Refresh Lives". Their promise to customers is: Reliability, Accessibility and Quality, in the provision of Water and Sanitation Services.

Thomas Odongo; MD – KIWASCO
Photo by Alessandro Fusi

Revenue being core to the performance of the organisation, Mr. Odongo gave a revenue trends as summarised below:

Period	Revenue Generated (In Kshs)
2006-2007	182M
2009-2010	275M
2013-2014	422M
2017-2018	691M

It was projected that this figure would increase to 800M in the current year (2018-2019).

He attributed this growth to the revenue management practices that KIWASCO had put in place, the things that had been done to ensure that the growth was sustained and was optimistic that the company would cross the billion mark by the year 2025. Planning was also one of the key drivers of growth and the company was in its 3rd 5-year Strategic Plan. This plan was broken down into annual plans, each with a budget, which involved everybody in the company, and which required Board approval.

The company had in its ranks only qualified and competent staff, who are taken through rigorous training in their areas of specialisation. Technology had also been a key driver, through automation of processes, in order to leverage on efficiencies of appropriate technology.

Prudent Resource utilisation is an area of cost containment.

Development partners had also assisted in KIWASCO's growth. With good books, it was only natural that development partners would want to be associated with KIWASCO. Good Corporate governance practices were in place, through a good and effective Board of Directors, who had provided oversight in terms of quality and the way the company operated.

The Company had not been without its own challenges:

- Treated water that went to waste due to a dilapidated network. The company was looking to replace about 6 kilometres of such networks, at a cost of about Kshs. 600 Million and was looking for partners to help in this;
- The company also lacked the required financial resources for expansion of its distribution network for last mile connectivity. It did however have enough water to take it beyond the year 2030;
- The company required partners to help in overhaul and upgrade of its existing systems. For efficient utilisation of the water from River Kibos, it was required that a dam be built, at an estimated cost of Kshs 4 Billion;
- The company was also looking to embrace current technology, such as Smart meters to assist in management of non-revenue water;
- 60% of the residents lived in low-income areas;
- KIWASCO was facing an escalating wage bill, which was necessitated by the need to engage and retain competent staff, in order to benefit from their competence.
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ASK: *KIWASCO is seeking partners to become part of its success story through: Partnering with them in undertaking major infrastructure projects; Providing affordable commercial financing; PPP arrangements and Providing innovative technological solutions to reduce non-revenue water and improve efficiencies.*

IV. PANEL DISCUSSION ON CORPORATE GOVERNANCE WITHIN THE WATER & SANITATION SECT

4.1 Vision of Public Sector, Private Sector and Civil Society

Discussants: ***Antony Ambugo, WASPA (moderator)***
Euphresia Luseka, KIWASH
Salmon Orimba, CECM, County Government of Kisumu
Alfred Odongo, SANA International

SDG6 is a commitment for all nations to ensure that we have Universal water coverage; water that is portable, safe and affordable. Corporate Water Governance refers to political, economic, social administrative systems in place that influence water use and water management. Unfortunately, in many countries, it is weak and fragmented.

There is broad international consensus that the crisis in the water sector is not a crisis of water. It is a crisis of governance.

This was alluded to 12 years ago by the United Nations Development Program, that if we have to achieve SDG 6 in record time, within the Agenda 2030, then it means that high priority should be given to good water governance. Two years later, Transparency International affirmed that.

We have seen that this is a crisis, especially in our country, where we have had push and pull. We have a new constitution, making water a shared function.

To start the session, Anthony asked Luseka, from where she was sitting as a development partner, which high priorities development partners were giving to good water governance, to ensure safe, universal access to water and sanitation for the populace.

Borrowing from the sentiments of Thomas Odongo (MD, KIWASCO), Luseka advised that partners like to associate themselves with good governance. The Ministry of Devolution has a National and Capacity Building Framework in place that guides their role as development partners. A recent podcast from World Bank communicated that development partners no longer need to fix the pipes, but they need to fix the institutions that are fixing the pipes. From that perspective, development partners are looking at it from the issues to do with investment; and from the issues to do with fixing the institutions that need to fix the pipes.

She added that water is a devolved function in Kenya; and in that regard they were looking at two stakeholders: the right holders and the duty bearers:

- the duty bearers are the County Governments and Water Service Providers like KIWASCO;
- Thee right holders are the citizens.

How do development partners really come in?
Kenya is now regarded as a middle-income economy; and being a middle-income economy, it means that aid is dwindling. When aid is dwindling, the question is how to get financing for a capital-intensive sector like Water and Sanitation Sector. This means that the country needs to move (away from aid) into trading; from the perspective of trading, we also need to look at who is getting the money in this market. Are the water service providers ready to be able to access this type of financing to be able to improve their operational efficiencies?

Therefore, as development partners, what would be key is trying to manage; trying to strengthen Corporate Governance in utilities; because it is said that the fish starts rotting from the head.

When looking at governance issues, there are three principles: accountability; transparency and participation. From accountability perspective, on the overall, they are looking at issues of strengthening the citizen, and that is the customer themselves. Do they know their right to water and the likes? Are their complaint redress mechanisms in place? How are they communicating? Are there contracts that indicate the roles of the water service provider? And also indicating to them that they have a right to water.

The partners are also looking at issues of internal accountability. They offer support in recruitment the right board of directors; the right mix in terms of gender; the capacities that they are have in place; strengthening institutions in terms performance improvement plans, performance contracts; automating the systems to ensure more transparent C & E governance.

On the upward accountability agenda, they look at how the utilities are supporting issues to do with compliance and enforcement; the general regulatory environment. This ensures that no one is left behind; even in the rural areas.

The priorities are in strengthening WSPs to ensure that they can be credit worthy, by improving the operational efficiencies and, by ensuring that money can be able to come into the WSPs; because there is a big correlation between Good Corporate Governance and a utility that is performing well economically.

The next question was directed at Honourable Orimba.

The Constitution of Kenya, Article 43, is very clear that every Kenyan has a right to clean, safe water in adequate quantities. The Constitution has given you the mandate of water service provision; and it is said that now you need to fix the institution before you fix even the leaks. He was asked what priorities had been put in place to ensure that every citizen in this county has "this precious commodity" (water) in the standards prescribed in the Constitution?

Mr. Orimba affirmed that it is the mandate of every sitting government to provide safe and clean water to its citizens. From Article 43 (of the Constitution of Kenya), and Water Act 2016, that devolved the functions of water provision and sanitation, water utilities must be put in place; and they should be independent, but not autonomous.

Kisumu County provide an oversight role to the operations of the water utilities they have. Water utilities are owned by the county government and CECs sit in the board and provide guidance on way forward on strategic thinking. A functioning water board must be in place, that can be able to give strategic thinking to the water utilities; not to micromanage, but just to give the correct way forward in terms of strategy and in terms of running of the utilities.

In Kisumu County, the CECs of water and finance sit in the board of the water utilities company; and they also have the city manager who sits in the board. The board has subcommittees: the technical committee; the finance and commercial committee; and the human resource committee. Each of these subcommittees has a chair;

These committees look at what goes on within the utilities and provide some kind of direction and deadlines on the day to day running of the water utilities. The board is chaired by the chairman. The chairman gives direction and chairs all the meetings within the board; and as a county.
There is an update, each and every month, on the operations of these utilities, to keep abreast on how things are moving. This is assessed in line with the Governor's manifesto and in line with the mandate bestowed on the Counties to provide safe and clean water.

With good governance, the County can provide strategic direction: on water coverage in each and every financial year; where they want to move to; what needs to be done in terms of non-revenue water and areas where rehabilitation is needed; and also areas where coverage can be extended, so that demands can be met as the population escalates.

The moderator's next question was to the Civil Society, represented by Mr. Odongo of SANA International.

As the public agencies, especially the county government and the national government, are trying to fix these institutions, it should be noted that the Constitution is barely 8 years old and that there are overlaps in terms of executing their roles. He wanted to know, what high priorities the Civil Society are putting in place, maybe in terms of capacity building, awareness and other issues, to ensure that the country does not move away from achieving SDG 6, Constitution 2010, Vision 2030 and the Big 4 Agenda.

Mr. Odongo affirmed that provision of water is a high priority, at the national level, and at all levels. Unfortunately, in Kenya, a large percentage of the population lack access to safe water. This is against a backdrop where most water utilities are operating at 30-40% of their installed capacity. Additionally, more than 50% of community-owned facilities are not functional. SANA have had the privilege of working with different counties in Rift Valley and Nyanza, and parts of Western, and had a chance to try to support small utilities to come up; their experience had shown that after establishment, they were operational for two or three years. When the donor went away, they went back to in-operational status. As a result, most of the population did not have access to safe water, yet there were a number of idle capacities not being used.

There were a number of measures which need to be done, that did not require investment in terms of capital investment (cash); but likely required capacity building and doing things differently; both at the National and County level.

At the county level, a lot of emphasis needed to be put into strengthening the policy environment. All counties needed county water policies and county sanitation policies in line with the Water Act. These policies are the ones that operationalise the operations of the various actors. Strengthening of the policy environment is important.

They also felt that there was need to strengthen the water sector coordination. At that moment, there was a void; they didn't have a national forum where both the national government, the county governments and all the stakeholders could come together, on a regular basis, to share their experiences and coordinate the sector activities.

They also believed that there was need for the county governments to allocate adequate budgetary resources to the water sector; they had an opportunity to do budget tracking of various counties and found that (the water sector ranked low among their priorities and budgetary allocation). For example, in Kisumu, and a number of other counties; water ranked about 10th in budgetary allocation almost across board, mainly in Western Kenya.

In Eastern Kenya, water ranked 2nd or 3rd, in terms of budget allocation; but in Western Kenya counties, where population is quite high, water was ranked low among priorities; when you looked at the money given compared to the other sectors. Yet, the people on the ground could hardly rank it beyond number 3; However, when the money was allocated; it was put at number 10. The MCAs blamed the executive and the technocrats. They said that the budgets were prepared at the technocrats' level, and then brought to Parliament at the last minute, denying them enough time to read them. This part needed to be harmonised to ensure that there was proper prioritisation, during allocation of money, towards the water sector so that there could be a proper sync between people's expectations and actual allocation.
Then there was need for the counties to adhere to sector guidelines; particularly when it came to appointment of board members. WASREB had very clear criteria; for example, it was clearly written that County Ministers sitting on Board of water utilities was against regulations given by WASREB. Why was this being done and yet it was very clear that this was not proper?

There was need to have greater awareness on the regulations as set out by the Water Act. The Water Act was in place, but the level of knowledge down at the grass-root level, among utilities and even at the counties was poor. There was need for capacity building on the Water Sector Act.

Finally, when it came to the water sector management, the relationship between the WASREB and the county govts needed to be given a closer attention. The Water Act saw water as devolved function; however, the role of licensing of the water utilities and the players belonged to WASREB; the county govt was only given the role of getting copies of applications for the utilities. This needed to be relooked at and made clearer to avoid future conflicts.

V. PITCHING SESSION - FINANCING & INVESTMENT OPPORTUNITIES FOR THE WASH SECTOR

5.1 KIFFWA: Presentation by Joseph Murabula KIFFWA, Chief Executive Officer

Providing capital & expertise to support viable water investment opportunities

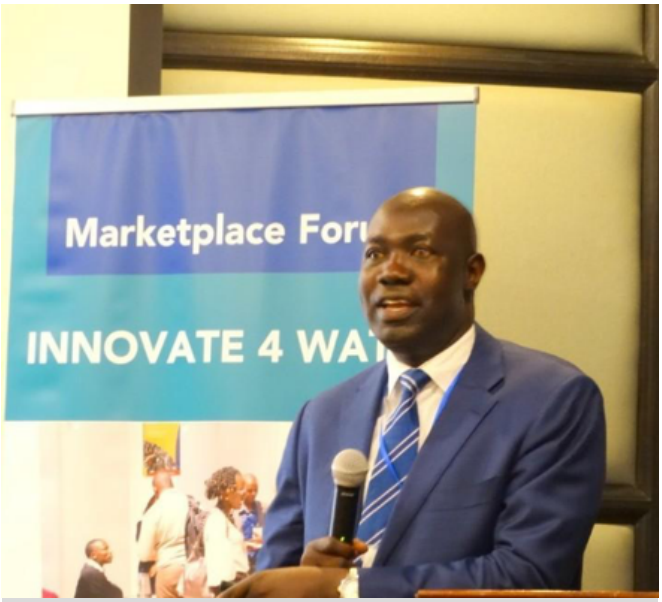
KIFFWA brings in the private sector through a co-development model, due to a shortage of private sector players in the water sector.

They provide money and expertise: engineering, legal, financial and environmental. The private sector did not want to play in the water space because of the risks involved:

- Feasibility studies could be done only to discover that the project was not useful/viable;
- Environmental and social impact assessment could be done only to be denied a license by NEMA;
- Hydrology studies could be done only to discover that there was sufficient water.

KIFFWA come in and pay for those expenses, to encourage the private sector to take the risk;
Their focus is on the project development space. Their current pipeline supports 18 projects, with an additional 150 jobs. They anticipate to bring an additional 18 megawatts of power on the national grid and irrigate about 35,000 acres of land. In terms of water service provision, they hope to bring an additional 68,000 cubic metres of clean and safe drinking water. KIFFWA does co-development in order to bring in private sector money, for purposes of creating impact.

ASK: *KIFFWA is seeking private sector people who are willing to walk the journey with them. Those that have projects or project ideas, a water source and piece of land. They are willing to engage with the objective of supporting such players. They are also looking for funding partners; who are looking for a good well-structured project to finance, they are the source of those projects; they develop the projects to a level where most of the risks are managed, and to a level that investors can put in their money. They work with funders, project developers, government institutions, regulators, among other water sector players, and are willing to have conversations with them, in order to move the agenda of bringing onstream water to meet SDG6.*



Joseph Murabula KIFFWA, Chief Executive Officer

Photo by Alessandro Fusi

5.2 Family Bank: Presentation by Jaffrson Orenge, Relationship Mgr – Corporate introducing 'Maji Plus'

Family bank's "Maji Plus" supports the WASH Sector in Kenya, targeted at all multiple players in the Sector: WSPs, WASH SMEs and Enterprises and community based organisations. The features of the product are convenient and customised to meet the specifications and the challenges in the sector. These include:

- Financing up to 80% of project cost
- Customer contribution of 20% can be in the form of: Labor, Raw materials, Cash
- Flexible loan repayment tenor of up to 60 months
- Moratorium for project financing- up to 12 months.
- Interest rate: CBR+4% p.a.
- Processing fee: 2% one-off
- Repayment structure- strictly monthly

They are specific on what they finance; they look at customer need and come up with something suitable. Examples of what we finance includes: water and sanitation, pipeline networks, sewerage, detection of non-revenue water, construction of water fills; purchasing of water bottling equipment, sinking of boreholes; They even finance contractors in this sector who want to buy drilling equipment, such as like drilling rigs; They avail trade finance facilities for all contractors, which can be in form of performance guarantees.

For collateral, they understand that in the WASH sector, there are challenges in having tangible securities like land. For service providers, they consider cash flows; and have a development credit authority guarantee with USAID, which makes it easy for these water service providers to access the fund. For WASH SMEs, decision-making is easier as they possibly have access to land title deeds which we can charge; you can also provide debenture cash cover and motor vehicles.
Their key WASH partners are:

- water.org, who have assisted us in coming up with a product;
- USAID;
- KIWASH;
- The World Bank;
- Water Sector Trust Fund; and
- The Ministry of Water and Sanitation.

5.3 Neema Heep Limited: Presentation by Pattedy Nyagah WASH Loan Products

Neema Heep is microfinance that operates mainly in Central and Eastern Kenya. They provide microloans to farmers in the rural areas and small-scale traders.

What problem are they trying to address?

Most countries, especially the developing ones, do not have adequate financing to ensure availability and sustainable management of water for everyone as per SDG6. They address this problem in two ways: First, they provide small loans from as low as Kshs. 5000 to individuals who may have an issue with water. They also provide individuals with loans for building toilets and buying water tanks or building water pans; and setting up small irrigation systems for horticultural farmers.

Secondly, they address this problem by educating and creating awareness in the communities on the need for clean and safe water. Traditionally, people in Africa used the bush as a toilet. They educate people on the importance of personal hygiene and the value of a toilet in a household; they provide the education to the people so that people can then come for the loan.

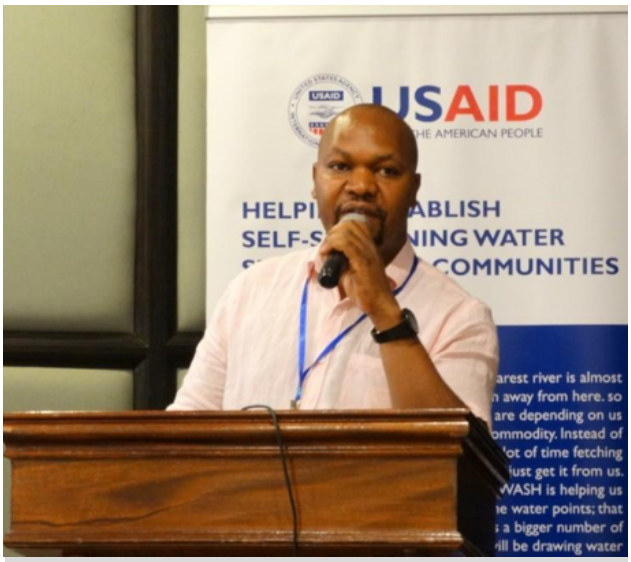
***ASK:** Neema Heep Ltd is seeking support or funding from investors, to the tune of Kshs. 30 Million, to enable to upscaling of operations.*

VI. PITCHING SESSION - SUPPORTING WASH INNOVATIONS

6.1 Take-a-stake Fund: Presentation by Wycliffe Mwanzi

Investing in small and growing business in WASH and waste sector

Take-a-stake Fund is a fund under formation, with about three years of experience and with various products in the market; but that has worked with various stakeholders and small and growing businesses, SGBs, to be able to identify specific needs, as part of an umbrella program called FINNISH. They comprise Take-a-stake Foundation in Netherlands; and a local Kenyan office, working closely with identified partners, for technical assistance, for pipeline development, and co-financing, co-investments and capacity building. They are also operating in Uganda and India.



Wycliffe Mwanzi

Photo by Alessandro Fusi

Their focus is on SGBs in WASH; who generally do not attract investment from financial institutions for various reasons; those that need a lot of support in form of hand-holding. They have done a lot of risk assessment and know the kind of risks that need to be taken care of as they put their investments into this kind of businesses. They intend to provide debt; and in the later stages, Equity to these SGBs. They provide debt funding in initial stages of between €150,000 and €1 Million, with about an average of about € 350,000. They are not looking at start-ups; but businesses that already have appropriate business models in place and have been in operation for about two to three years.

They have in-depth WASH expertise; an inhouse team and partners. The main promoter of this fund is WASTE; a Danish NGO with a lot of years of experience in WASH. The other key partners being FINISH Mondial, BORDA, CEWAS, KIFFWA, SIDA, with whom they provide customised capacity building to the SGBs among other interventions. They have a co-investment model, and have a number of MOUs, with some banks; a very unique model, where they look at them as collaborators and not competitors.

***ASK:** Take-a-stake-Fund is seeking like minded partners to work with them and these SGBs; they could be businesses in water and sanitation that feel like they require investment in terms of debt in the initial stages; Technical assistance partners who feel that they can be part of this; Investors into the fund. They already have some that have given commitments; they are looking investors that can also help grow the fund/value. And investment partners such as banks.*

6.2 Equity Bank (K) Limited: Presentation by Raymond Komen

Equity Water Credit Program

Equity Bank's Water and sanitation program started in 2011 with collaborations from some of their main partners, who include water.org. They are an all-inclusive partner. They give loans to customers from the micro level all the way to the corporate level; with a range of products based on two main products built to support the WASH Sector:

- Maji Loan, a product specific towards water solutions;
- Jamii Safi Loan, geared towards sanitation solutions.

The first phase of the program was completed in 2015, where they were able to give about 4000 water credit loans; impacting about 270,000 beneficiaries.

The second phase was geared towards digitisation, where they want to transform banking from a place you go to something that you do, and in effect scale up issues of water credit through technology. This will allow customers to take loans from the comfort of their mobile phones and have the tank delivered to their homes; and don't need to necessarily come to the bank.

They have a few challenges that we are looking to address:

- The high cost of water and sanitation facilities. They are looking for partners who have solutions that subsidise the cost of these facilities;
- High risk in our target market, the bottom of the pyramid, BOP. They are looking for likeminded partners to assist us in de-risking or perhaps risk-sharing; or a way to reduce that risk;
- Insufficient internal capacity within the bank, on issues to do with water, because the model of banking is not geared towards lending to water. They are looking to strengthen this capacity;
- Sensitisation of the customers themselves; they have a challenge in getting demand for their products.

6.3 Kenya Institute of Public Policy Research and Analysis (KIPPRA): Presentation by Victor Mose

Promoting innovation and technology

KIPPRA's mandate is capacity development and research on public policy issues. Innovation and Technology are some of the issues noted that require policy shifts, to enhance competitiveness as a country. The products/activities of their mandate are: trainings, research reports, policy events, and networking.

What value are they bringing into this conversation?

From research, they have noted weak links in the uptake of innovations and technologies. They need to create awareness on the policy environment, opportunities available, strategic approaches, institutions, both national and global, non-government and government.

They offer service in terms of problem diagnosis and prescription through research, especially in the monitoring and evaluation kits; for example, the competitiveness of the country is good, but we need centres of excellence. We have pockets of innovations and technologies; but need Centres of Excellence, to encourage cross-fertilization from various sectors.

The country was ranked 37th out of 137 countries, in 2018, in the global scale in terms of competitiveness on innovations and sophistication and based on 9 parameters. But in the overall ease of doing business, the country was ranked 91st ranked by the World Bank; this means that Kenya is doing good on issues of innovations and technology; the question is what is the impact? are we feeling the impact of those innovations and technologies as a country?

A major noted was that patenting is very low globally; But interestingly, there were more Kenyans patenting, than Kenya is patenting. There are more Kenyans outside there who have innovated and patented their innovations in other countries as a host country. The impact of economic analysis of that few is clear.

On challenges that needed to be addressed, they centred on Innovations and technologies; the way they can be harnessed: through manufactures, purchases by government, technology transfer, leasing your innovation and technology, donations and so on. Innovation hubs and technology centres is very very key; and work was needed on that.

There was also an issue of technology orientation. We may be very good in the way we are setting up our technologies, but we need: to enhance complexity of our technologies in order to avoid duplication

- innovate and in the following year you are out of market because it is easy to imitate; we need standardisation; quality; and mass production. Other weakness that need to be addressed are issues about market orientation; issues of commercialisation and entrepreneurship; issues of local content, institutional compliance etc.

ASK: *KIPPRA is currently undertaking a report on innovations and technology as a country and require partnerships through financial and technical support, data and information; and participation through surveys.*

6.4 Stichting Nederlandse Vrijwilligers (SNV): Presentation by Ebenezer Amadi

Innovation & Financing for the Water Sector

SNV is an International Non-governmental Organisation, formed 50 years ago and working in three sectors; agriculture, renewable energy and WASH. They aim to reduce poverty, and these have been identified as three key areas to effectively carry out their mandate. They are in 38 countries.

SNV WASH projects:

They are doing a project, Performance Enhancement of Water Utilities in Kenya, PEWAK, in conjunction with a number of partners. They have focused on specific areas, and one of them is Innovative Financing:

- One of the components being looked at is blended financing; whereby the project can offer some amount and the utility offers some amount;
- The other component is Performance Based Contracting (PBC), and Public Private Partnerships (PPP).

They have worked with the Ministry of Water and Irrigation through capacity building. Their model doesn't styart out at PPPs. They start at a smaller level, using a Public Private Community Partnership (PPCP) model; and they've been able to implement this in Navakholo, Kakamega County and in Ndhiwa; in PPCP, the Private Sector come in and work together with the community to start a project. The community sits on the board so that they can monitor the private party.
The other project is Reduction in Non-Revenue Water by:

- Creating district meter areas; basically isolating the network into small regions;
- Management of non-revenue water through the adoption of technology. Technology is very key in enhancing performance.

They also promote best practices and build capacity.

ASK: *On Performance Based Contracts, they have conducted assessments for about 5 water companies; one of them being Murang'a South; they proposed a small area, out of the company's entire network area, Kenol DMA; the population is 28,000; and the non-revenue water is at 60%. The private party is supposed to come in, financing part of the infrastructure, for about Kshs. 15-20 million and is expected to reduce non-revenue water to about 24%. This is an opportunity for the private party to participate in this space and come in to invest; then they will be expected to recoup what they have invested a number of years.*

In this particular area, we have partnered with an international organisation called SBU; by having technology, corporate; and also by partnering with a University, to be able to conduct a Customer Satisfaction Survey. WASH base has been able to develop a platform and has also been able to conduct Customer dedication surveys and wonderkid published management resolutions.

VII. PITCHING SESSION - REINFORCING THE CAPACITY OF ENTREPRENEURS AND ACCELERATE THEIR ACTIVI

7.1 GSMA: Presentation by Leonard Kore

Mobile-enabled water services

GSMA represents interests of mobile operators World Wide; It has a department called mobile for development utilities, which combines the use of mobile with improving energy, water and sanitation. Since 2013 when the department started, it has funded over 50 grants in 4 continents; 15 of which were water.

In 2018, GSMA decided to understand what aspects of the projects were working and what were not working. The following is a summary of the 3 key trends that were identified with all the 15 grantees since 2013:

- Pay as you go water is picking up, but mobile money still needs a push;

It has worked well in the energy sector, in products like Mkopa where you can pay amounts as little as Kshs. 5 and get electricity for that amount. In the water sector it is working in some sectors and not in others. This is because outside East Africa, mobile ecosystems are very difficult as opposed to within East Africa, where it has been embraced.

Notifications are absolutely crucial for customers who reside in countries where mobile money systems are not trusted. Immediately they pay for water, they want to receive a notification; whether it's coming from the utility, the service provider or the mobile operator.
Finally, customers are not accustomed to paying for transaction costs outside East Africa; especially for water services, which they feel is supposed to be free.

- Digitisation in helping utilities in reducing non-revenue water;

Working with utilities in Africa has challenges to do with getting buy-in from senior management with regard to return on investment. Employees also fearing job losses. However, the biggest challenge is with money, where the utilities to not have sufficient funds to carry out this digitisation process.

- Water point monitoring is key to sustainable water delivery models but needs to be backed up with action.

Payments is a key factor to consider when looking at the sustainability of the service. Who is going to pay for the service? Also required is an action plan on what shall be done with all the data collected from the systems in order to provide the desired value of the system.

ASK: *Are you interested in the Instant Payment Notification Hub? The above was just a summary, but the full report was available for download. Instant pay notifications are available, especially for providers outside the East African region where service providers are having challenges with notifications.*

7.2 GIZ Zambia Water Program: Presentation by Romakala Banda

Capacity Building - WASH Local Solutions Ventures for Women

The WASH Local Solutions Venture for Women (SOLVE) Initiative started in 2018, when funds for commemorating Women's Day were instead used to do something of a social entrepreneurship nature. Women from peri-urban areas of Lusaka were asked to come up with business ideas; look at the WASH problems in the community and come up with a business solution, so that they could make money from it.

The activities were composed of two phases:

Phase one was a launch that was done on Women's day itself; that talked about the concept and encouraged women from peri-urban areas to apply to enter the competition. Based on resource constraints, 16 of 69 entries were selected. The teams underwent coaching, and a final roadshow was done in which 5 finalists were selected.

Phase two comprised of business training, networking and introducing these women groups to business ecosystems. The five groups of women came up with these business ideas, summarised below:

- Two companies focused on cleaning services: This was to address the risk of waterborne diseases in the 2.3 million population of Lusaka. In 2018, there were 6,000 cholera cases, 114 of which were fatal.
- Two companies focused on pit-emptying and Faecal-site management: A high percentage of Lusaka is not on sewage systems, but on pit latrines.
- The Last one focused on hygiene management.

ASK: *The next phase is looking at establishing women in WASH cooperatives to replicate those in the Agricultural Sector; and in case you are interested in any of these companies; you are welcome, we can provide you the profiles.*

7.3 Transformational Business Network, TBN: Presentation by Liza Maikweki, Partnership Lead

Acceleration Process

The East African chapter of TBN is based in Kenya and Uganda, but they are headquartered out of the UK. The organisation began in 2003 in the UK; and 2016 in East Africa. They run a program called skill for success; and are looking to accelerate purpose driven entrepreneurs in the growth-stage of business. The organization is looking for entrepreneurs that have more than five employees; that are post-revenue; that have been in operation for three years; and that are looking to make an impact in their community.

TBN is currently run three successful calls: last year and the previous year. Some sector specific; in agribusiness; in health and business; and are looking to get into the WASH space. Addressing primarily SDG1 and SDG8, alleviating poverty and creating employment, through SGBs.

TBN aims to:

- Transform business culture: How business is done in East Africa, in terms of doing business with integrity and certain values that entrepreneurs are taken through in the program.
- Accelerate purpose-driven entrepreneurs: through a 6-month program, where they give training, coaching and mentorship for these entrepreneurs.
- Mobilise impact investment: They to get these entrepreneurs to a place where they can act as alternative investors; by connecting them with a network of investors.

They provide:

- Investment advisory services: basically, pre-investment support;
- Deal brokerage services: because they realise that a lot of entrepreneurs are not very clear on the type of investment that is required for their business. Thus they match-make them with the right investor. Their focus is on concessionary and patient sources of funds, with a network mainly comprising of high net worth individuals, some private family foundations and;
- Services for these investors to give them reporting and post-investment support, because they are not based locally.

ASK: *TBN is seeking:*

Partners in terms of funding; because they provide this service at a concessionary rate; they are currently funded by Argidius Foundation but are looking for other partners to support. They have entrepreneurs who pay a concessionary fee for the 6-month program;
Partners who are able to give us access to these entrepreneurs; and of course, grow their investor database. Their investors are currently based in the US and the UK; but they are looking to grow their local investor network.

7.4 MDF Training & Consultancy: Presentation by Willem Kevenaar

Wastewater management alongside eco-friendly fuel and social impact.

There are a number of challenges in Waste Water Management that have the potential to lead to reduced quality of life and environmental degradation. MDF believe that they have a solution for improving treatment of wastewater, by upgrading wastewater facilities and increasing collection of wastewater. This will lead to sustainability in the environment and improve quality of life.
Their approach rests on three crucial elements to make the solution sustainable in the long run. There should be clear business drivers within the value chain. Aid is dwindling; they believe that it will be working in the long run, if there's a modest value chain approach; and they will be building on existing knowledge and facilities.

What about the holistic and value-chain approach?

The value chain is straight-forward. Communities produce waste water, exhauster companies collect; water and sewerage companies treat and process this water into 'consumable products'; these products and distributed and consumed by consumed by the community: end products that support the communities again there with, closing this circular economy.

What are the Challenges and Opportunities?

Challenges include the fact that water treatment plants need improvements; and connection to sewerage systems need to be reinstalled. But there are also quite a lot of opportunities, good technical and motivated staff; and expected low cost for improving the targeted water and sewerage sites.
They believe that they stand out from other sector players, because of their integrated approach and the value chain approach, creates a holistic solution, that is sustainable in the long run.
They believe that the business case looks viable in the long run, with lots of targeted households, cooking with biogas and using charcoal briquettes, combined with the process of producing these products, potentially benefiting multiple stakeholders.

We need investments to do a feasibility study and can start on short notice; investments for infrastructural development and capacity building; and for operational costs before eventual hand-over to local parties.
We would like to be in touch with interested parties: Technical parties and funding parties, to identify the scope, impact and agree on roles, funding and other modalities.

VIII. PITCHING SESSION - SAFE WATER ENTERPRISES

8.1 BoréalLight: Presentation by Hamed Besheti

WaterKiosk

The cost of drinking clean and safe drinking water is prohibitive for a good number of residents of East Africa, in comparison to their incomes. This is especially so within the rural areas.

BoréalLight has designed an affordable and simple solar water desalination system to address this challenge. This system has been able to bring down the cost of 1000 litres of water from $10 to $ 0.5. This water is used mainly for drinking, and for other activities tailored to the community in which the solution is set up. These include irrigation, provision of water for livestock, and water for sanitation facilities.

Hamed Basheti

Photo by Alessandro Fusi

The WaterKiosk is set up as a partnership between BoréalLight and local communities, with each party contributing 50% towards the cost of the project. They then sell 20 litres of water at $1 within urban areas and $ 0.1 for rural areas. With an average lifespan of 25 years, they run the system together for 7 years after which it is handed back to the community.
The system is very simple to maintain. 80% of the maintenance can be done with a wrench and a screw driver. Each Waterkiosk employs three personnel.

***ASK:** BoréalLight is searching for communities that would like to partner in this solution on a 50/50 basis.*

8.2 Purefresh: Presentation by Anthony Kamotho

Water kiosk in Naivasha

Purefresh is a For-Profit company that operates a network of potable water kiosks, self-built using local technology.

Purefresh noted a gap in the provision of water services by WSPs and have come in to fill this gap. Due to the inability of WSPs to expand everywhere in the country, and their ageing infrastructure, a percentage of the population lack access to potable water. They operate in densely populated urban and peri-urban areas; currently in Nakuru County; and in parts of Nairobi and Kajiado counties. They have 30 micro franchises and 19 full-time staff.

Below are the features of their water kiosks:

- Conveniently located within residential areas
- Low energy consumption needs
- Equipped with remote monitoring capabilities
- Affordably price the water and guarantee quality

On finances, Purefresh operate at gross profit margin of 60%. In 2018, They grew their revenue 40% year

on year and their current ARR is $400,000.

***ASK:** Purefresh is seeking to raise revenue-based debt of $1Million to grow their revenues to $2Million in 3 years, in exchange for 10% of gross revenue for each of the three years.*

8.3 Impact Water: Presentation by Mark Turgesen

Innovative water treatment solutions

Impact Water delivers high-social-impact and affordable water treatment technologies, and long-term maintenance for developing county schools. They aim to make an impact by providing clean and safe drinking water in schools, so that they can improve the health of the learners and by extension the quality of education imparted to the children.

Impact is currently in 37 Counties in Kenya, with 30 technicians supporting the project. They have three products: Ultraflo, Ultratab and Ultraprime, of which the first two are in use in schools due to their affordability. Ultratab costing Sh. 8 per student per year, and Ultra flo, Sh. 5 per student per year. This is against an allocation by the government of Sh. 32 per student per year. This affordability makes the products very attractive to schools in Kenya.

Impact Water provide a free system to the schools to enable them to start enjoying this solution. They have been able to do so in 2,200 schools in Kenya, 2,500 in Nigeria, and 300 in Uganda as at 2018. This impacts on 3 million students per day.

***ASK:** Impact Water is seeking debt investment, corporate and government partnerships as well as grants in order to expand their impact to a larger area in Africa.*

8.4 SIEMENS STIFTUNG: Presentation by Imran Jalalkhan

Safe Water Enterprise

Safe Water Enterprise is a water treatment kiosk for remote communities. It uses solar energy for water purification and pumping in some sites and therefore does not need electricity; designed in this way to make it suitable for implementation in rural areas. Using ultrafiltration, the kiosk produces safe water at a rate of up to 1000 litres per hour.

For an effective WASH intervention, clean water must go hand in hand with proper sanitation facilities, and Siemens is working with Kenya Water Health Organisation, KWAHO. Among the activities the partnership is involved in is sensitisation of students on the need for cleanliness.

The major challenge currently being faced in the project is drought, which sometimes lowers the water levels to a point that the kiosks are unable to obtain water for purification. Additionally, some water cannot be cleaned with the technology that we are currently using.

***ASK:** Siemens Stiftung are looking at upscaling and are therefore looking to partner with County governments that are willing to take up this technology. They are also looking to work with partners that have the technology to clean water that their solution is unable to.*

IX. PITCHING SESSION - REINFORCING UTILITIES AND OPERATORS

9.1 Seureca East Africa (Veolia): Presentation by Emmanuel Corbel

Implementation of an innovative system of leaks detecting on water supply network

Seureca East Africa are engineers, working on a leak detection system designed by a French company, Sainte Lizaigne. They are conducting a leak detection pilot project in conjunction with Kisumu Water and Sewerage Company, KIWASCO, to begin in March 2019, and funded through a French grant.

What challenges are they trying to address?

Kenya is losing Kshs. 7.8 Billion annually due to non-revenue water. At the same time, water utilities in Kenya facing immense pressure to generate revenue to cover operational costs. The largest opportunity to reduce non-revenue water (NRW) is by reducing physical losses.

These physical losses are mostly due to leakages occasioned by dilapidated mains and service lines and intermittent supply leading to pressure variations in the distribution pipelines.

Seureca and Sainte Lizaigne are trying to address this challenge by providing a solution aimed at detecting leakages; called EAR Solution.

The EAR Solution works as below:

- It is integrated into the classic house connection as a listening point on the network. A hydrophone sensor is placed in a service connection value, making it a simple and easy way to cover the entire network.
- It can capture sounds produced by water in any pipe, including plastic pipes.
- Once installed, detection of the leaks can then be done through Patrol mode, or Network Mode.

This system has the following benefits:

- Accurate and permanent monitoring to detect water leaks;
- Leaks pre-location for a better organization of required interventions;
- Unlike traditional systems that require monitoring every 50 metres, the sensors can be placed up to 200 metres apart.

ASK: *Seureca East Africa is seeking Water utility companies with whom the project can be extended; Investors to finance such type of equipment and Proving superiority of the system in comparison to traditional ones*

9.2 Apex Piping: Presentation by Charles Gichane

Innovative piping systems

This is the second year APEX they participating in the forum; the previous year as Cat-plastics. Affiliated with Apex Steel, the company has ventured into the water industry, focusing on piping.
Why Apex Piping Systems?

- The pipes are manufactured, locally in Athi River, using 100% virgin material;
- They use fully automated machinery in order to create these pipes, ensuring fast production and consistency in the quality of pipes;
- The pipe lengths of 6 metres excluding socket length;

Apex stand at the Marketplace forum *Photo by Alessandro Fusi*

The range of pipes include UPVC pipes, HDPE pipes and PPR pipes, being the first to manufacture PPR pipes and HTP pipes locally. Apex piping has an inhouse testing facility in Athi River that is open it up to other manufacturers, to make sure that the pipes purchased and in use are of high quality.
Apex is more than just a piping company; it is more than just a steel company. Their ultimate objective is to be your all in one solution for all your construction needs. The company was launching a new hardware store in Kisumu on Obote road, Apex Master-build; and the participants were invited to visit it.

Apex accepts four different payment methods: Mpesa, cash, cheque and bank transfers. The company also offers credit to repeat customers ranging from Kshs. 500, 000 to Kshs. 10 Million to assist their customers in cash flow management. This limit can be increased depending on the project scope.
The company has 7 locations in Nairobi, 1 in Mombasa and 1 in Kisumu. Delivery within Nairobi is free, and outside the capital city a cost is charged depending on the distance from the closest location, how much product is purchased and its weight.

9.3 AKVO: Presentation by Andrew Molo

Handbook on Data Collection

Akvo is a not-for-profit foundation that develops open source, internet and mobile-based software solutions. Their specific target is the development sector, but they are becoming more generic in terms of working with government institutions.
Data is the new oil; in order to make informed decisions, you need data that has been processed; information

Why the handbook?

- In a lot of projects or programs, both in the development sector and other sectors, there is inconsistency in methodologies used in data collection.
- In many instances, data collection is done as a result of opportunity and not need. In most cases, this leads to data fatigue, with useless data, which doesn't arrive at any inferences when processed.

- Data is not usually shared; you have tools; programs, maybe in Kisumu doing the same project; collecting the same data and because it is not shared will lead to double/duplicate data.

The handbook is funded by EU, under the Afrialliance program, and mostly highlights the needs, the actions and the best practices an organisation needs to adhere to in collecting data.

Data collection involves the below stages:

- ***Design:*** before you collect data, you need to design;
- ***Capture:*** can be qualitative or quantitative depending on the needs/design of the research;
- ***Understand:*** this stage requires data analysis and visualisation to establish trends;
- ***Act:*** For any information to be of use, it must be acted on.

The handbook explains these pillars, spelling out what needs to be done in each section. The handbook is currently in use in the WASH Sector in projects such as football for water. The hand book is available in Soft Copy, for download, on the Afrialliance website.

9.4 WAGTECH Africa: Presentation by Ruth Wambui

Innovative Tech

WAGTECH is a UK based company, with a regional office, WAGTECH Africa. The company has worked for many years in perfecting portable water quality testing kits. These portable water testing kits can be taken to the field to enable water testing at the source; rather than carrying water from the field for testing in the labs.

A challenge that has been identified is generation and storage of data; This can be overcome by water quality monitoring systems.

Data capture is done on an app directly in the field, rather than having to wait until you return to the office to capture the data. The data is immediately stored in cloud; and anyone with the requisite rights has access to the data.

Ruth Wambui

Photo by Alessandro Fusi

This product is perfect for water utility companies. Agents/employees out in the field are able to conduct test, with real-time updates in a central location, such that the data can be accessed by someone sitting in their headquarters. With the right sensitisation of staff in different departments in the organisation, the data can be used for multiple purposes such as guidance in policy matters.
With the dashboards in place, the application can be used to quickly access information about different parts of the ecosystem and be able to quickly identify patterns and trends affecting particular areas within the utility's coverage.

WAGTECH therefore supplies equipment for testing, together with the software to be able to manage the data; outputs of the testing activities. In terms of microbiology samples; the application is able to do auto-counting. It is also colour sensitive to facilitate chemical testing; the output of which also goes directly to the cloud. The application has a stock management functionality that helps in stock planning, giving alerts when stock is depleted and about to run out. Also gives alerts when equipment is not working.

ASK: *WAGTECH is seeking water utilities and private water companies, for instance water kiosks, that are looking to manage the quality of their water, especially for purposes of reporting to their financiers.*

X. PITCHING SESSION - OFF GRID AND SMART TECHNOLOGIES

10.1 UPANDE: Presentation by Mark de Blois

Smart transformative data driven decisions

Upande limited is a data driven and Kenyan based firm whose mission is to enable smart, transformative, reliable, data driven decisions for diverse customers across Africa. They have an application called Water and Sanitation management Information System, a Kenyan-developed platform, which focuses on the non-revenue water; and how technology can be used in bringing down the physical loss and commercial loss of non-revenue water, in order to make utilities more financially viable.

The key activity in Washmis is linking what's in the field to what's in the office. A cloud based smart phone-based application maps all the utilities' customers and infrastructure. 10 water utilities and 40 small rural schemes have been trained on the app. Bulk meters and sensors are used to collect data every 10 minutes, with sensor readings received through a wireless frequency. This data is used for analysis and decision-making. For the last one year, there had been 3 million sensor readings.

What is their value proposition?

- They offer technology as a service in order to guarantee uptime. Their solution suite is modular, and clients have the flexibility to consume the entire; or only parts of it.
- The company is focused on loss reduction through technology; so the technology pays for itself.
- Since the solution is locally developed, it has local technical support, is customisable, and is tailored to the needs of the local sector.
- The system provides early warnings for issues such as emptying tanks to enable corrective action, and smooth operations.
- Cost savings by having reconciliations between what is in the field and in the database.
- They have the system at work in other industries, such as in flower farming.

ASK: *Upande are seeking Customers for the application, Partnerships in scaling up, Partnerships in pilot new tools, Exploration of new business models and Support through grants, convertible loan and equity*

10.2 Maji Milele Ltd: Presentation by Marcel Schreurs

Prepaid meters

Maji Milele, is a limited company providing prepaid water meter solutions. They deal in two kinds of prepaid water metering systems:

For communal water points: where a Paybill is opened and tokens bought, through mobile money, by individuals requiring water from that waterpoint. No water goes to waste as every single drop out of the tap is paid for.

For individual connections: where as you top up through mobile money, you get a code to key in to the meter. The meter valve opens for the quantity of tokens purchased. This greatly assists in eliminating defaulters in post-paid water service provision.

The solution has an online monitoring system connected to the meter, to be able to monitor usage and revenues, both at the individual level and collectively. WSPs, and other subscribers to this service, can be able to clearly monetize the value add of this solution.

In a survey done with 40 MDs of water service companies regarding their interest in prepaid meters, all said that they would like to adopt them. However, 86% of them said that they did not have the money to implement the solution.

ASK: *Maji Milele is seeking: More clients across the region, and not just in Kenya. The hindrance to this is the limited budgets that WSPs have and Financial sector willingness to provide finance to client, use of the meter as collateral and the payment systems to secure the loan repayments.*

10.3 Mascara: Presentation by Maxime Haudebourg

Solar powered membrane water treatment without battery

The company was founded in 2014 and have developed two products for treatment of sea water and brackish water. The innovative process patented by Mascara Renewable Water enables a flexible functioning of the reverse osmosis desalination unit.

The technology at a glance

- The world first: powered only by solar energy, without battery
- Specific consumption among the lowest in the world: 2,5kwh/m3 produced in Bora Bora (seawater at 35g/L)
- Sturdy, durable and automatic: reliable water supply with no repeated breakdowns over a 20 year life span

Thousands of boreholes need to be purified to provide access to fresh drinking water, but the lack of financing is a problem. They have a water treatment point that is cleaning up to 40 cubic metres of water per day and would like to scale up the operations.
Mascara Renewable Water engineers have developed an intelligent set of stabilization parameters. At any given moment, at all times, all parameters are instantly optimized to ensure the production of water with the best energy performance while guaranteeing the maximum lifespan of the installation. The intelligent set of membranes plays a role of the master of spontaneous self-management to all of these parameters, and in particular, the pressure. Drinking water production varies with available solar power accordingly.

ASK: *Mascara is seeking to develop Public Private Partnerships in provision of affordable and fresh drinking water; are looking for financing for their water treatment project and also to discuss with other players in the sector on how they can combine efforts in managing risks and providing solutions to their identified customers.*

10.4 Sweet Sense: Lauren Stover

Sensors

Sweet Sense started from a Portland State University research into public health interventions, where a gap was realised in monitoring of the effectiveness of those interventions. An Oxford University Research found that 30-50% of pumps installed are no longer functional 18 months after installation.

Sweet sense provides a solution for remote monitoring of these water sector interventions through remote sensors and data analytics. The sensors are satellite or GSM powered and are used to collect data on power and flow rates of these pumps, through a cloud server. This data is analysed to assist in decision-making and improvement in operations and service delivery.

They are working mainly in arid and semi-arid areas in Kenya and other parts of East Africa and currently have 300 sensor installations across East Africa, monitoring over 1 Million people's water supply. They also specialise in machine learning, where they are using predictive analytics to figure out the lifespan of infrastructure and its components. Sweet sense is also working on a blockchain based water credit trading system.

ASK: *Sweet Sense is seeking: Expansion to other Kenyan Counties; Expansion to other countries in East and West Africa and Financing from impact investors to lower technology cost and to fund expansion.*

10.5 Mobitech Water Solutions: Kelvin Gacheru

Sensors / Water point availability

Mobitech Water solutions is a company that deals monitoring tanks and reservoirs using a system, Mobi-water system installed in tanks and reservoirs. The system has been successfully used in improving water availability in Kibera.

Problems we are trying to address?

- Water shortages and inconsistent supply of water – A problem faced in many jurisdications in developing countries;
- Lack of data/information on water point – this denies the opportunity to assist in monitoring and planning;
- Lack of an affordable monitoring system – most monitoring systems are beyond the reach of small and medium water service providers.

Our approach

As part of the solution, a sensor is placed in the tank, and extracts information about the water levels in the tank. The sensors are of two types: transducers or ultrasonic sensors. The sensor is designed to send out a signal when the tank is at its highest or lowest levels.
The user is also able to monitor the water levels through either a desktop dashboard, a mobile application, or through SMS for those that do not have access to the internet.

Our achievements

- 30-40% increased water availability - the system enabled better monitoring for more effective management;
- Increased accountability – It has assisted with calculation of incomes, as it can be able to account for little details;
- 85% repayment rate for the system, meaning that the system is not only affordable, but has value for its users.

ASK: *Mobitech Water Solutions are seeking partners to work with in commercialisation of the system and expansion to other regions.*

XI. FOCUS SESSION - IW+ CONSORTIUM: INCREASING EFFICIENCY OF LOCAL WATER OPERATORS

11.1 CityTaps: Presentation by Gregoire Landel

On-premise PAYGO Water

Founded in 2015, CityTaps is a company that provides water service providers with solutions for more efficient management of their water networks. The company taps have solutions to make running water available in every urban home. The solution achieves this through the following in water utilities:

- Reduction in physical and commercial losses using sensor readings and artificial intelligence to identify unusual data associated with leaks and malfunctioning and tampering of meters;
- Improved customer experience through personalised alerts, more information on consumption patterns, accurate payments based on automated readings and convenient payment methods;
- Improved cash flows through digitised cash management and zero account receivables;
- Improved operations and energy efficiency, through installation of smart meters.

The solution has the World's only smart pay and go meter, which provides data analysis and is integrated with mobile payment, powered by PAYGO, that talks directly to the meter. Once the money is paid, it feeds into the meter directly without the need for any other intervention such as codes, tokens or smart cards.

PAYGO also results in better cash management, and reduced risk of default. This is attractive to investors and helps in accelerating the move towards achievement of SDG6.

ASK: *City Taps are offering and asking water utilities to innovate with them, and partner with them in this solution which is objectively new to the market. Water service providers stand to gain immensely from the security accorded by PAYGO and the ability to generate new streams of financing for the utilities.*

11.2 SunWaterLife: Christophe Camperi

PAYGO Water ATMs

SunWaterLife is a French based company, with presence in 22 countries, who Develop, Manufacture and sell solar powered water purification systems, with the aim of bringing water to the sub-urban and rural communities.

Their solution is a solar powered water purification system with the following features:

- It is solar powered and therefore easy to deploy
- It is networked using GSM;
- It uses an easy to maintain technology and
- It is operated mainly through Water Kiosks and Water ATMs.

All that is required is a water source and it is able to purify between 3-8 cubic metres per hour. They are currently engaged in Research and Development on membrane distillation, with real time on the field bacteria detection. SunWaterLife also have portable solutions, the size of a suitcase, weighing between 25-32 kgs, and which can filter 80-300 litres per hour.

The products suitable for application in areas including:

- Health centres, especially where there is a disease outbreak;
- In case of emergencies, the solution can be rapidly deployed;
- In off grid housing systems, which have surface or borehole water, it can be metered and connected directly to households or provided through water kiosks with prepaid cards.

11.3 iW+ Consortium: Presentation by Jim Chu

Jim Chu

Photo by Alessandro Fusi

Leasing facility to attract financing - iW+

iW+ Consortium, is a consortium comprising of technology companies, funders and enablers who have a singular mission: To help local operators adopt these technologies in increasing efficiency, increasing revenue and increasing access to clean and safe water.

What are they trying to address?

iW+ provide technical assistance and financing for local operators to adopt innovations. This is because sourcing financing for them is difficult due to the inherent risk in new technology and innovations, and because most require pilots which are too small for most institutional investors.

The iW+ solution essentially facilitates adoption of validated, innovative solutions through equipment leasing and digital solution integration:

- On the equipment leasing side, they provide equipment leases, so that operators can have control of their own financial resources for projects, using private and public financing for which repayments are made reliably through PAYGO systems;
- On the technology side; they validate and integrate technologies, so that they are a single solution to operators, which helps reduce risk and time to deployment.

The consortium leverages on PAYGO solutions, as a digital payment stream, because it acts as collateral to provide additional transparency and security for financiers. Therefore, iW+ takes the investment from the investor, purchases equipment which is then leased to the operators, under a lease-to-own arrangement, who are then able to pay back through the digital payment stream, which also acts as a security for the lease. At the end of the lease period, the ownership of the equipment is transferred to the operator.

The ultimate objective of the consortium is to assist in reducing non-revenue water and assist in expanding service coverage, in line with SDG6. This is a win-win-win value proposition:

- The investors are able to reduce the risk of investment;
- The water operators get access to the much-needed financing to speed up projects and increase efficiency;
- Technology companies get market access for their innovations.

ASK: *iW+ Consortium is seeking: Local Operators, with assets on the ground, teams on the ground, and ready to deploy; Financing Partners: Local banks and leasing partners who have on the ground local knowledge; Concrete projects of between 0.5M to 10M; which with the presence of operators and local financing partners, can be executed right away and Technology partners to innovate in services and platforms. Their aim is to make it easier for operators to adopt innovation and to ease the implementation process.*

XII. FOCUS SESSION - SANITATION VALUE CHAIN AND FINANCING

12.1 STATE OF SANITATION IN KISUMU COUNTY

Presentation by: Arthur Shikanda
Officer in charge of Public Health (PHO) in Kisumu County

Introduction

About 52% of the population reside in urban centres. Open Defecation Free (ODF) stands at 27%. Majority of the total population live in informal settlements without proper sanitation provision. This is according to a scoping study on toilet and sludge management in Nyalenda and Obunga.

According to reports by county field officers, latrine coverage in the whole county of Kisumu stands at approximately 68.5%.
Arthur Shikanda Photo by Alessandro Fusi

Arthur Shikanda

Photo by Alessandro Fusi

Situation

Regarding rural sanitation, out of 1,918 villages in Kisumu County, 48% have been triggered. Triggering is based on stimulating a collective sense of disgust and shame among community members as they confront the crude facts about mass open defecation (OD) and its negative impacts on the entire community. Out of this population, 33% 'claim' to be ODF; 31% have been verified to be ODF by the County and 27% are ODF.

More:

- Handwashing coverage is estimated at 13%
- 30% are using improved toilets
- 31% are using unimproved toilets
- 25.9% use shared latrines
- 12.9 defecate in the open with no toilet facilities.

On ***urban sanitation***, 79% of urban dwellers live in informal settlements without proper sanitation. Toilets in these informal settlements lack privacy, with no washable slabs and no smell and fly control. The water table is also high in some areas. Pit latrine and septic tank emptying is rampant and fecal sludge is poorly managed. Pit latrine and septic tanks are emptied and contents indiscriminately disposed.

Liquid waste management in the urban markets is a challenge, with a sewer coverage of around 16% - 18% in Kisumu. This situation is compounded by low resource allocation on sanitation mainly due to privatisation.

Following this situation, Kisumu is ranked 10th out of the 47 counties in with regards to sanitation. A WUSP (Water & Sanitation for the Urban Poor) 2014 study estimated that Kisumu loses kshs 740 million due to the prevailing sanitation situation.

Challenges

- Wastewater is poorly managed with more attention given to water supply without due attention to the resultant waste water. For example; A water burst will be attended to within a very short time by a service provider but a sewer burst takes more time to be attended to.
- Water supply coverage stands at +50% while wastewater management stands at 16% - 18%.
- Refuse and solid waste management including e-waste and healthcare waste is poorly managed.
- Access to safe and potable water is a challenge mainly in rural areas.
- Institutional sanitation is not up to the required / UNO stipulated standards.
- Socio-cultural beliefs and taboos impact negatively on sanitation in the county.
- Poor fecal sludge management especially in informal settlements and in institutions.
- Awareness on menstrual hygiene management remains a challenge because of being guarded by primitive beliefs and taboos.
- Although reasonable middle ground is forged, prioritisation of sanitation and goodwill from the county leadership / management remains a challenge.
- Lack of favorable resource allocation
- Food hawking as an element of sanitation especially in urban areas.
- Poor coordination of law enforcement.

Way forward

"We intend to deliver Kisumu rural to be ODF free by the end of 2019" Arthur.

Although the prevailing percentage is low all plans have been put in place with support from external partners and the Country Government of Kisumu.

Mobilization for more resources towards improved sanitation is being done through the WASH network. In the CIDP (County Integrated Development Plan), sanitation has been given sufficient space and priority.

Emphasizing on sanitization marketing. Whereby technology is availed in supporting sanitation efforts and also creating awareness among the populace on the need for good sanitation.

Inviting stakeholder collaboration with special emphasis on PPP. This is mainly in urban areas where private entrepreneurs are being brought in to manage sludge especially in informal settlements.

Sanitation marketing whereby financial institutions and private entrepreneurs are brought on board to ensure that sufficient technology is availed.

Strengthening monitoring and evaluation. Through CLT (Community Led Total sanitation) there is real time reporting whereby relevant data is uploaded immediately and reflected on the official web portal.

Targeting urban sanitation and putting in place plans to ensure that populations in urban areas are catered for.

Political investment in sanitation. Bringing politicians on-board to ensure that they embrace the importance of good sanitation and that they mobilise their respective communities towards the same.

Strengthening policy / legislation and conformation with both N'GOR and e'thekwini international declarations on good sanitation. Kisumu county is currently working on the Environmental Health and Sanitation Policy and Bill that will domesticate the national bill to ensure that it caters for local needs.

Capacity building of institutions working in sanitation including the community (national leaders,

community health volunteers) and WASH networks. Empower them at their various levels to be able to properly articulate issues on sanitation.

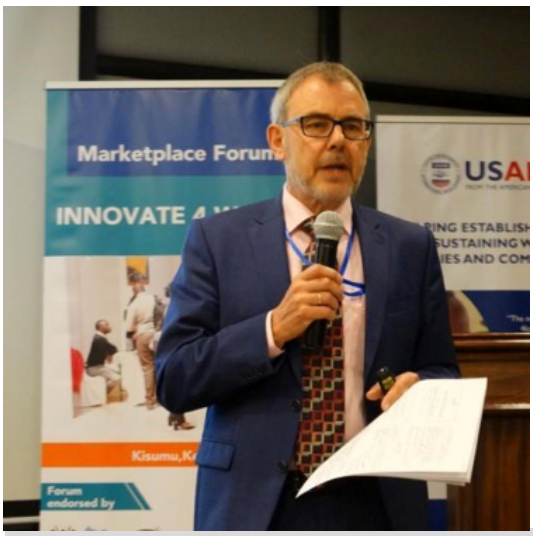
Enhance knowledge coordination and knowledge management in sanitation activities through establishment of a hub.

12.2 SETTING THE SCENE: BRIDGING THE WORLDS OF SANITATION VALUE CHAIN & FINANCING

Aqua for All: Presentation by Sjef Ernes

"There is a great gap in services and a gap in opportunity due to sanitation. Sanitation is currently attracting a lot of attention because of the prevailing and existing market opportunities (not challenges). The figures on Kisumu reciprocate accurately with the other regions in Kenya; and this is an untapped 100-Billion-dollar opportunity. Where exactly is the opportunity?" Sjef.

IMPORTANT TO NOTE:
Investment & business opportunities are there
Public sector to partner with the private sector
Grant money to be used smart(er) to create and reward



Sjef Ernes

Photo by Alessandro Fusi

Kenya is losing more than 300 million dollars annually because of lack of good sanitation. This translates to about 7 dollars per person per year. Average toilet coverage in Kenya stands at 40% - 45% depending if it is improved or unimproved latrine.

- 32 million Kenyans without basic sanitation services.
- WSP/ WB: Kenya loses Kshs 27 billion (US$ 324 million) annually due to poor sanitation

Opportunity (not challenge): scenario
Out of 1 million people, 60% will have non coverage on sanitation. This means that 600,000 people are in need of toilets. Which means there is a need to construct at least 100,000 toilets. This translates to upto 30-million-dollar market for construction and a further market for discharging the resultant waste. Also a market for re-use of the resultant waste. By providing the toilet you create a huge market.

There is need for collaborations / partnerships to effectively address sanitation challenges. Subsidy is needed especially for those who cannot afford the toilet. There is a lot of room for improvement especially considering that the government allocates a meagre 0.2% of its GDP to sanitation.

Where is the market for toilets? The Sanitation Economy

1. Toilet economy
"The total market for construction of individual & community toilets, deployment of portable toilets, maintenance, repair & cleaning is estimated to be worth $14 billion in 2017 and could more than double to $31 billion by 2021 in India," Toilet Board Coalition.

There is a viable service economy available with the toilet economy. This includes construction of the toilet, servicing (maintenance and repair) of the toilet, running the toilet (public) and discharging the content.

- Toilet product and service innovations
- Fit for purpose for all environments and incomes

2. Circular sanitation economy
"Products derived from Toilet Resources, and organic/biological waste such as water, fuel, electricity, proteins, and organic fertilisers or compost offer tremendous scope for growth." Toilet Board Coalition.

This addresses issues of how to reuse human waste and how we can smartly mix this with other waste streams.

3. Smart Sanitation Economy (Data Economy)
From such data, the Ebola scourge in West Africa could've been prevented or more effectively addressed just by providing water filters and better sanitation," Sjef.

Market intelligence which is important for investors and the philanthropy market is derived from data. With this data, relevant institutions, corporations and individuals get to know where to put money; makes it easier for them to identify which programs perform and further opens the market for result-based philanthropy.

- Digitized sanitation systems
- Optimize data for operating efficiencies, maintenance
- Consumer use and health information insights

Are we doing it?
We already have quite a number of social enterprises in all the three economies. There is need for counties, utilities and WASHco's to incorporate these enterprises in their long term strategies.

The private sector will only come in if a particular business is viable. If the costs are higher than the revenue, then it is not a business. Inclusive business starts with good governance because private sector needs security from the public sector. A good and viable business ecosystem should be created around these businesses. Aspects such as good infrastructure, clear tender procedures and PPP contracting among others.

Importance of impact
Who would be interested to see that a sanitation business is successful at the beginner stage when revenue does not match operational costs? These are impact investors who include the Ministry of Health; or philanthropists supporting courses such as gender equality, education, health programmes, marine ecosystem enhancement, poverty alleviation, renewable energy e.t.c. Impact investors are a vital component in building sanitation businesses.

How to make sanitation businesses viable?

- Work together. An African proverb best portrays the importance of creating scale through partnerships / joining forces. 'Alone you are faster but together you will get further'.
- Smart use of grants.
- Copy good examples
- Ecosystem enhancement
- Protect the private sector players with continuity (concessions, permits, licenses)
- Tender on Total Costs of Ownership
- De-risk investors
- Monetize outcome by: - Pricing non-action costs - Pricing outcome/impact, link SDG6 with other SDGs • Create IoT solutions for payments
- Ring fence the revenues for O&M, repayment debts /lease
- Make use of technology

12.3 INNOVATIVE, SCALABLE & BANKABLE SANITATION VALUE CHAIN INITIATIVES - 3 PROVEN CASES

Case Study 1: Showcasing the business model for the reuse of fecal sludge in a supportive public-private ecosystem in a circular economy

Sanivation: Presentation By Dickson Ochieng

There is need for safely managed sanitation in urban and peri-urban areas. Lack of sanitation causes significant environmental pollution to water bodies, soil and ecology. This environmental pollution causes diarrhoeal diseases which is the second leading cause of death in children under the age of 5 years. Productivity money is lost among other wastages related to poor sanitation.

In line with prevailing trends, problems are here to stay as peri-urban towns show consistent growth. This will cause significant stretch in service provision. Utilities in peri-urban towns are struggling to meet this ever-increasing demand to provide sewerage expansion.

The reality is that It is not possible for both central and county governments to achieve 100% sewerage connection. How do we fill this gap?

Partnership with Nakuru County

SANIVATION saw this as a more realistic path towards filling the fecal sludge management gap to help meet SDG6 and vision 2030 goals on sanitation.

SANIVATION signed an agreement with Nakuru County in June 2017 to:

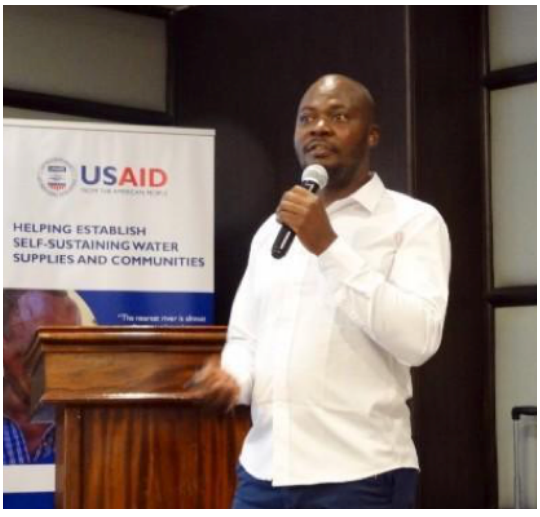
- Increase the amount of fecal sludge that is safely managed in Naivasha Region
- Showcase a fecal sludge treatment plant
- Develop a City Wide Inclusive Sanitation plan to achieve Kenya Vision 2030 and SDGs

Together with partners Sanivation have set up uniquely designed treatment plants with two guaranteed revenue streams (treatment & fuel) and sanitation services that create employment and increase safely managed sanitation. The waste treatment factory gets the reuse in form of briquettes. The factory takes in sludge brought by vacuum trucks, treats and transforms into biomass fuel.

Impact

Better well-being of 20,000 people who now have access to improved sanitation services at the same time providing employment to 75 people. Impact on health after 100 tons of infectious waste is safely treated leading to up to 47% reduction in diarrheal diseases. Impact on the environment after 750 tons of briquettes are sold which in effect saved 65,000 trees.

a) Sanivation builds a treatment plant to match current non-sewered collection
b) Public funding of $200,000 - $3 million CapEx or >$3/pp/yr OpEx, concessionary loan for CapEx
c) DBOT, Sanivation owns factory for 20 years, then transfers to WSP
d) License to operate, land, existing funding and / or willingness to seek more CapEx together



Dickson Ochieng

Photo by Alessandro Fusi

Kakuma Refugee camp
Sanivation Contracted to design and implement sanitation services in secondary cities

This is the first model where Sanivation partnered with an institution to execute a full value chain of sanitation. Whereby they offer household container based toilets which are tendered with weekly servicing and waste treatment. A result is biogas fuel. This has had impact on the number of people serviced and also the net margins gotten from it.

Case Study 2: Access To Finance Through The Finish Program And Collaboration With The Finance Sector For Sustainable Sanitation For All

FINISH: Presentation by Pamela Bundi

FINISH (Financial Inclusion Improves Sanitation and Health) is a consortium of various companies. International Partners include; AMREF Flying Doctors, WASTE and Aqua for All. One of the main local partners for the FINISH INK (Financial Inclusion Improves Sanitation and Health in Kenya) program is the central government through the Ministry of Health.

Other local partners include; AMREF Health Africa, and financiers including; SIDIAN Bank, Family Bank, Imarika SACCO and other SACCOs under the Busia County Enterprise Development Fund. One of the new partners with whom FINISH INK is working on a new expansion program is CARITAS Kenya and CARITAS Microfinance. Dutch based United Nations University, Maastricht carries out impact measurement of the FINISH program while ACTIAM is an impact investor in the program. FINISH was established in India in 2009 and expanded to Kenya in 2013. Mid last year they ventured to 4 other countries: Tanzania, Ethiopia, Uganda and Bangladesh.

In Kenya, FINISH started in Busia and Kilifi, expanding to six other counties in 2018. The goal is to cover the whole country by 2025.

Pamela Bundi

Photo by Alessandro Fusi

Three main loan segments

Sanitation loan products within FINISH INK partner financial institutions cut across individual/household loans, institutional loans and entrepreneurial / small enterprises loans.

Household loans

Loan clients are offered financial literacy training, encouraged to make savings and eventually access to loans. The financial partners including AMREF Health Africa, CARITAS and the Ministry of Health conduct demand generation for households to take up improved sanitation. The loans are accessible specifically for improved sanitation system.

Institutional loans

The financial inclusion component under this segment is access to loans reducing the institution's upfront capital expenditures on sanitation. Beneficiaries are mainly schools; with other institutions such as hospitality and health institutions also included under this segment.

Entrepreneurial / Small enterprises loans

These loans are exclusive to entrepreneurs in the sanitation sector. Most of the entrepreneurs under this segment are involved in the various processes in construction of toilets. Beneficiaries also enjoy business training and coaching, and support on regulatory issues such as registration.

The Diamond Approach

This approach has four main appexes. Communities, Financiers, Government and the Businesses.

Communities

Through awareness creation, populations demand improved sanitation and are willing to pay for it.

Financiers

Support financial institutions to develop loan products that are suitable for the community and especially for those at the bottom of the pyramid.

- Integration of sanitation loan products into the bank's mainstream products and services
- Mechanisms of de-risking sanitation loan products e.g. through guarantee funds.
- Integration into existing ICT platforms such as telecom based applications and lending methods e.g. m-Shwari.

Government

This is also where CBOs (Community Based Organisations) and NGOs come in.

- Policy development that is supportive and encourages safe sanitation uptake by all e.g. Integration with the community health structures
- Easing the barriers of entry into small scale businesses and specifically sanitation businesses

Businesses

- Incentivization and support to small scale providers
- Strengthening the sanitation supply side through training and coaching
- Mechanisation for mass production
- Innovations for cost reduction and quality improvement

Why is financing needed for improved sanitation?

Technological needs for sanitation are higher. There is a higher cost for youth and SMEs to venture into sanitation businesses i.e. the construction, supply of materials etc.

Social returns are higher. Which means that resources / money has to be spent. There is need to blend Public / Private financing to ensure that we are able to pull in funds that can cater for this segment where costs of needs are much higher than what is available through government and the NGO sector.

FINISH Outcomes for Kenya

- Households have invested 7.5 million in loans over the past five years
- Initially the financial leverage ratio was 1:2 but presently FINISH has been able to leverage significant local financing through loans for safe sanitation at a ratio of 1:6.
- Currently there are 8,000 sanitation loans within the different financial institutions. Out of this, 80% of the sanitation loans went to financing household sanitation systems, 16% to sanitation entrepreneurs and 4% to institutions.
- Households have invested € 7.5 million in sanitation improvements through sanitation loans, including €500,000 self-financed.
- There has been Government contribution to improved sanitation through funding school sanitation using CDF.
- About half of sanitation loan clients are first time bankers, and more than half are women.
- As at December 2018, 8,620 improved toilets have been built / financed through sanitation loans. With over 40,000 people enjoying the benefits of safe sanitation (Kilifi and Busia counties).

Case Study 3: Unlocking Financial Viability For Low-income Consumer Business Models

WSUP (Water & Sanitation for the Urban Poor): Presentation by Emanuel Owako

WSUP have had business models in other countries that have worked efficiently. They are aiming at replicating these models in Kenya. Emanuel's presentation focussed on unlocking financial viability for low-income consumer business models on sanitation. The trigger-points that facilitate businesses to unlock their growth while appreciating difficulties such as working with government, breaking even and how to create an enabling environment.

There is high population density and growth rate in the peri-urban areas of most urban cities. For example Bangladesh has a population of over 162 million with 42 million residing in urban cities. This factor brings with it a disease burden, begging the question on where to get the intelligence to determine where to invest.

Fecal sludge management then becomes one of the options since services such as manual emptying of sludge are normally not included in most of the cities' sanitation plans.

Integrating OSS and FSM into City's vision, strategy and planning

- Most of (Lusaka's, Dhaka's, Kisumu and Nakuru) population live in low-income neighbourhoods known as 'Peri-Urban Areas' These are densely populated and lack infrastructure, including sewerage (only 10- 27%of city connected)
- On-site sanitation facilities (used by over 60% of population) not matched by safe FSM
- High water table means that groundwater is contaminated by pits that leach, leading to frequent cholera outbreaks
- Vacuum tanker operators tend to work in the city centre and target septic tank owners (around 30% of city population) rather than pit latrine owners
- FSM and safe manual emptying not included in city's planning

Effectiveness in Application

For sanitation businesses to operate, there has to be a conducive institutional arrangement that brings on board public authorities. These include; the utilities, city authorities in highly centralised cities, county government and public utilities.

Institutional Arrangements

- Heavily determine effectiveness of progress to financial viability
- Value in assessing gaps in arrangements
- Strengthening arrangements and competencies where possible to be harnessed

SWEEP MODEL

In Bangladesh, WSUP developed the 'Sweep Model' which uses manual emptiers (referred to as sweepers). WSUP worked with the government to provide a model that was able to support the 42 million urban population; serving both middle and low income customers (BOP Consumers). The model engages the public authority to provide a subsidy which is to provide a tanker that is leased then by an operator and a licence for dumping. Households then pay a service fee.

Stipulated in the service contract, a percentage of their service must be to low income customers hence the service fee is reduced through the subsidy. The clause introduced mid-2017 mandated GCC to ensure 30% of customers are lower-income. In the sweep model, the businesses were able to break even in terms of O&M basis within five months.

Sweep bottom line

- Profitable in Dhaka on an O&M basis within 5 months
- Profitable in Chittagong on an O&M basis within 4 months
- 330K people served
- 10m BDT total revenue (approx. 120K USD)
- 1.9m BDT total profit (approx. 22K USD)
- Approx. 42% people served from low-income areas
- Model to be expanded to 2 additional cities (Rangpur, Barisal)

SWEEP is an example of a context-specific LIC business model providing services at reasonable scale in two cities. This has been achieved through the following trigger mechanisms:

- Citywide approach which leverages the middle and high-income customer base to rapidly establish financial viability
- Differential pricing model with internal cross-subsidy to promote affordability for low-income customers
- PPP contract conditionality which leverages the lease-based agreement to require development of the low-income customer base

In Kisumu, WSUP has supported an SME called Gasia Poa to expand into urban sanitation. By development of public-private arrangement between Gasia Poa, KIWASCO and Kisumu County Government. Also offering the SME capacity development support including financial modelling and training and development of Standard Operating Procedures (SOPs) to raise standards for emptying and disposal.

XIII. PITCHING SESSION - INNOVATIVE SANITATION BUSINESS

13.1 Biofertilizer: Presentation by James Mawa for Abdul Dedya

From Waste to Value - Are you looking to reduce & reuse your organic waste sustainably?

Garbage and solid waste are transferred by high temperature composting to high valued bio-fertilizer & briquettes

- Convert your waste to local fertilizer value.
- Raise your yields and control plant diseases.
- Garbage and organic waste can be transferred to Bio fertilizer.
- High temperature processing in standard container with low energy consumption.

Process: Collection > Sorting > Classifying and Mixing > Subjected to a Controlled Heat System > Screening and Quality Control > Blending > Palleting and Bagging.

BIOFERTILIZER has signed MOUs with different stakeholders, districts and municipalities in Uganda and with the right partners they plan to soon roll out their waste management operations in Kenya.

13.2 Gasia Poa / Umande trust: Presentation by Dickens Ochieng

'Gasia Poa' is an expression in Swahili slang (sheng) meaning Waste is good.

Gasia Poa is a legal entity licensed both by the County government and KIWASCO to provide Waste Management Services. They offer Solid waste management services and Fecal sludge Management services to Kisumu residents.

Gasia Poa ensures safe hygienic and professional service provision to its customers particularly in Low Income Communities; providing a solution by moving waste out of plots hence creating safer environments to live in.

Process: Customer Sign Up > Evaluate Pit > Empty Latrine > Transport Waste > Dispose of Waste

ASK: *Gasia Poa are seeking new collaborations / partnerships for financial support to enable them acquire a vehicle to assist in their operations.*

13.3 Sanergy: Presentation by David Auerbach

Safe Sanitation Services for Urban Non-Sewered Areas

Fast growing non sewered urban areas are extremely challenging for municipalities to serve. Most of these informal settlements are heavily set-up in terms of housing infrastructure and population density.

Sanergy is working in areas of difficult topography where it tasking to build and offer sanitation services. These include flood prone areas, areas with high water table, and areas with loose soil. They also work in areas with fragmented value chains. Sanergy offers full value chain to serve cities' non-sewered areas. They do this by;

- **Building** affordable, low cost, high quality sanitation facilities and services
- **Franchising** these facilities to community members. This community investment models ensure that the community views this as a solution that they want.
- Guaranteeing safe and regular collection and treatment of the waste.
- Taken to a large processing facility where this is converted into valuable agricultural inputs, organic fertilizers & insect based animal feed.

Fresh Life toilets are designed for residential compounds and serve upto 10 families. They are waterless, durable and compact.

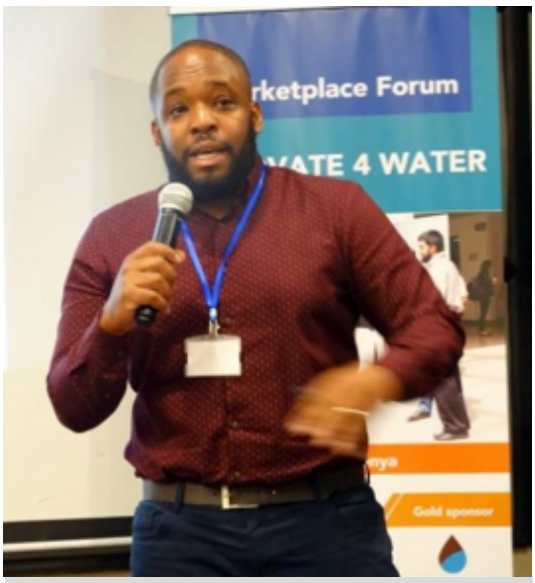
ASK: Sanergy is seeking Municipalities / Utilities to partner with via a performance-based contract to serve their respective non-sewered areas. Also Investors to join them as they put together an impact bond to saturate Nairobi to serve 500,000 people by 2022.

13.4 Agua Kenya: Presentation by Mshila Sio

Creating value from wastewater

Over 90% of wastewater is discharged untreated. Most mechanical solutions are too energy intensive, too costly, difficult to maintain and the smell is horrible. Growing populations, industrialization and urban migration is quickly reducing water availability whilst creating a rapidly growing wastewater crisis. Our innovation provides the technology to sustainably address both these challenges.

Agua Kenya innovation is a combination of three things. A patented floatation system, tiny lagoons and plants. The technology enables the plants to float on water creating a stable robust platform for them. This drastically enhances the plants capacity to inject oxygen into polluted water, it amplifies the plants ability to digest organic matter without generation of odors or sludge and eliminates minerals/heavy metals.



Mshila Sio

Photo by Alessandro Fusi

What makes it different

- Smaller Footprint 0.8-1m2 per person as opposed to 6- 10m2 per person in lagoons and wetlands
- Self sustaining Smart ecosystem that will serve and last decades
- Treats wastewater to international reusable standards
- Creates Green, odour free spaces that can double as a treatment plant and public park

No energy, No chemicals, No smell, No moving parts.
ASK: Agua Kenya is seeking scale up financing & project financing. And also implementation partners:- construction & technical partners, capacity building/training/mentors and county governments.

13.5 Transform Rootzone: Presentation by James Mawa

Eco Friendly wastewater treatment

Rootzone is a natural Bio-technology for treatment of sludge and wastewater. It involves manipulating and control of nature to optimize treatment function. How to efficiently manage your waste and recover water resources good enough for reuse for external uses.

The main mission is to promote sustainable wastewater management through environmental friendly Rootzone technology. Their initiative is to involve PPPs in the undertakings.

Rootzone achievements

- Successful Meetings & Negotiation with public, private partners including; Kampala Capital City Authority (KCCA), German development organization(giz), Uganda Manufacturers Association (UMA), Kampala pollution control task force (PTF).
- Leachate treatment project on going with schools wastewater management projects.
- Biofertilizer manufacturing project to be implemented in Entebbe, Iganga and Mbarara municipalities.

ASK: *Transform Rootzone are looking for partners who are seeking to solve water and environmental pollution challenges and exposure to potential clients in wastewater disposal challenges.*

13.6 NAWASSCOAL: Presentation by John Irungu

Fecal Sludge to Green Energy

NAWASSCOAL is a subsidiary company of Nakuru Water & Sewerage Company. The water company receives about 200m3 - 3000m3 of sludge everyday; out of which only 75% is used in the production of makaa.com briquettes. This allows room for scaling because efficient availability of sludge makes it sustainable.

NAWASSCOAL stand at the Marketplace forum *Photo by Alessandro Fusi*

Impact of NAWASSCOAL

- Address Sanitation Challenge – SDG6 FSM
- Provision of Green Energy Solution
- Environment conservation through saving trees, and
- Job creation

"1 tonne of briquettes produced will save 88 trees. If we could produce 300 tonnes per month, we will save 26,400 trees."

NAWASSCOAL enjoys a high demand of MakaaDotcom currently producing 6 tons of the product per month. Makaadocom is sold in Nakuru and its environs with a vision of expanding the market base. The company aims to grow from 6 tons per month to 150 tons per month. In turn enhance alternative energy solutions and create more employment and empowerment for youth and women in the society.

NAWASSCOAL is looking for finance support to make their production processes more efficient and to enhance the marketing and distribution strategies

13.7 ECoH Holdings Ltd: Presentation by Edwin Kamau

From Garbage to Cabbage

ECoH is an acronym that stands for Environmental Conservation and Health. The vision and mission of the company is to develop high quality organic products that work towards improving human life through healing, restoration and revitalization of the environment. ECoH has thus developed and produces versatile products that mitigate challenges in Agricultural production, Environmental conservation and Human Health.

YAD Bio Vitalizer "From Garbage to Cabbage"
24Hr Composting technology converts organic waste into a resource, organic fertilizer within 24Hrs. It eliminates breeding sites for vectors, thus ensuring better public health, sanitation and disease prevention. Eliminates production of leachates emanating from decaying organic matter hence no contamination of groundwater.

ASK: *ECoH Holdings Ltd is seeking Funding for scaling up of project. Implementation partners (County govt, NGO, Donors, UN Agencies) to replicate this impact within Kenya and Africa at large and Partnerships (Not reinvent the wheel) SDG 17.*

13.8 Vuka Sasa: Presentation by Joab Oluoch

Low cost sanitation solutions in informal settlements

Vuka Sasa is a youth founded village group with membership drawn from urban informal settlements in Kisumu County e.g Nyalenda community. Their main aim is to maintain high sanitation standards within the informal settlement, (of focus, Nyalenda). The main activities include Latrine Pit cleaning and pit emptying.

Achievements

- Community Ablution block
- Close working relationship with county Government
- Recognition by the community e.g. client forums
- Job creation to the youths

Opportunities for Vuka Sasa include: composting & urban farming, garbage collection, solid waste collection & recycling and briquette making.

ASK: *Vuka Sasa are seeking Funding, partners in pit emptying technologies and means of transport among other partnerships.*

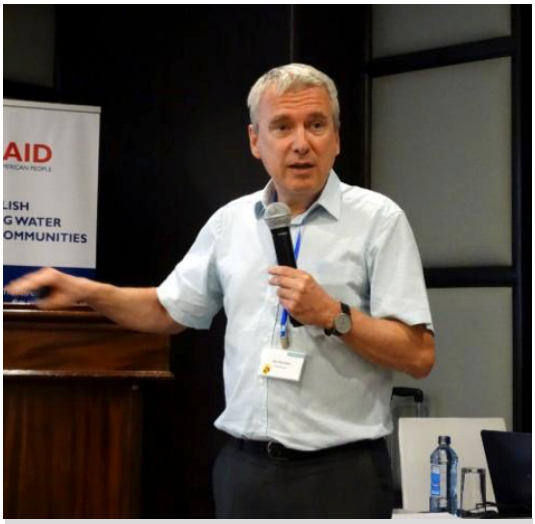
XIV.FOCUS ON VICINAQUA PROJECT IN LAKE VICTORIA

14.1 VicInAqua: Presentation by Prof Jan Hoinkis

Self-cleaning water filtration solutions

VicInAqua is an R&D project funded by the European Union's Horizon 2020 research and innovation programme under grant agreement No 689427. The project aims at developing an integrated approach for water management by providing an integral, sustainable, innovative, cost effective and robust solution for water sanitation combined with the demand for clean water in aquaculture and irrigation in the Lake Victoria basin.

The project has 11 partners from 7 European and 4 African countries. Among the partners is the Kisumu County Department of Agriculture and Livestock.



Prof Jan Hoinkis

Photo by Alessandro Fusi

VicInAqua Technical Concept

- Develop a novel multipurpose filter system (Membrane bioreactor-MBR)
- Develop a novel high efficient energy supply system (Biogas, PV solar).
- Design a Recirculation Aquaculture System (RAS)
- Develop a robust, low cost control system in real time
- Reuse water in RAS and for irrigation

VicInAqua novel solutions are conceived as a tailor-made response to local sanitation and water supply needs of Victoria Lake inhabitants and industry.

Membrane bioreactor (MBR) filter technology

The innovative core idea of VicInAqua is to develop, test and integrate novel technologies (e.g. self-cleaning membrane bio-reactor (MBR)) in a common system. VicInAqua main goal is to enable the supply of clean water to RAS and agriculture (water reuse) and this through a single solution water treatment (sanitation) of different wastewater streams (domestic waste, fish production and processing industry).

MBR combines two water treatment steps →low footprint

- Activated sludge process (air and biological floc)
- Physical separation process (membrane)

High effluent water quality due to membrane technology

- High efficiency in degradation of organic compounds
- Low sludge loading →low rates of surplus sludge
- No clarifier needed
- High MLSS →small bioreactor volume
- Clean water, free of turbidity and very low germ level (no disinfection) hence water reuse.

VicInAqua Environmental impact

- Effective sanitation – Wastewater treatment (aquaculture, households, fish processing industry), solid waste management and utilisation.
- Fresh water availability – By avoiding release of fertilisers, antibiotics and diseases of aquaculture in the ecosystem; by reusing treated water for aquaculture and agriculture purposes.

- Use of renewable energy – Thereby reaching a very low CO2 footprint and enabling autonomy to cover energy demand of VicInAqua facilities.
- Assessment of the environmental impact, sustainability and life cycle analysis - To guarantee a proper observance of environmental regulations.
- Extraction and use of natural by-products (nutrients to be used as fertilisers) - To be used in agriculture, thus providing a sustainable and environmentally friendly solution, which permits to take distance from chemical based fertilisers.
- Increase in fish production productivity (Nile perch and tilapia) - and enabling the production of native fish species which can be step-by-step reintroduced in the Lake Victoria ecosystem.

ASK: *VicInAqua is seeking partners to implement a marketable, cost-effective demo plant in the Lake Victoria region.*

14.2 Aquabiotech Group: Presentation by Kyra Hoevenaars

Recirculation aquaculture system

Aquabiotech is an international aquaculture consultancy and engineering company. The company has around 60 team members globally and conducts projects in various parts of the world. Aquabiotech provides solutions for a growing aquaculture sector tackling the current challenges by using state of the art technologies. Taking into account the local challenges of every country where they work.

Their projects include:

- Aquaculture consultancy projects involving feasibility studies, marketing studies, training on best management practices among others.
- Turn-key aquaculture systems. Designing, engineering and installing turnkey aqua-filter systems
- Research projects to further develop the technology and for business development.

Aquabiotech focuses on recirculating aquaculture systems; whose main advantage is the ability to re-use upto 98% of the water. This is most ideal for areas experiencing scarcity of water. Since this is a land base system, it can be built close to the market. Using the system one can control all the environmental parameters and optimize for the fish or other aquaculture species being bred. Currently the technology is used mostly for research centers and for hatcheries. Further; the systems are tailored to address local needs; training and capacity building is offered to clients and conduct feasibility and market studies.

ASK: *Aquabiotech is seeking partnerships with water treatment companies, engineering companies and other companies with experience in bidding for contracts in the region and in Africa as a whole. Also seeking for clients in the continent such as Aquaculture companies, Research Centers and Universities.*

14.3 Oxyguard: Presentation by Poul Rosendorf

Real time water monitoring and management solutions

Oxyguard are global leaders in aquaculture water quality measuring, monitoring and control. The company is involved in the VicInAqua project through providing equipment used in transforming wastewater into reusable water.

Oxyguard is based in Denmark and sells equipment globally while constantly developing new products and upgrading the existing ones. The main unit used in the VicInAqua project is called the PACIFIC UNIT.

About the Pacific Main Unit -

- Up to 20 probes: wired, wireless
- Combination of relays and digital inputs/outputs (up to 30 of each)
- P-NET, TCP/Modbus, TCP/IP, USB, SMS, Mail and
- Built-in data logger - Touch-screen

The Pacific Commander has an artificial daylight program. This can control fluorescent or LED lamps with analogue or DALI signals. The unit also has a feeder program that can control feeders with analogue or on/off signals.

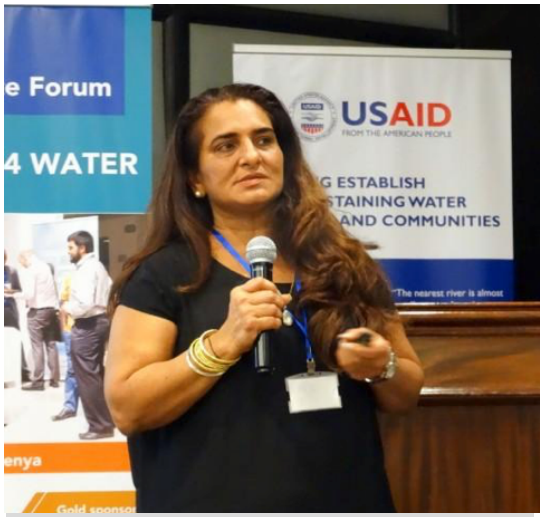
The OXYGUARD POND MASTER has numerous advantages including: it is an inexpensive solution for continuous measurement of dissolved oxygen in a tank with fish or in a pond; it is Small & Reliable; it enables data transfer via USB; able to send an alarm through SMS mails & locally by light or signal; and is sufficient for feeding, measuring, monitoring and aeration.

14.4 Greenergia Kenya Ltd: Presentation by Reena Shah

Waste to Wealth, powering solutions - Turning water hyacinth into gold

Greenergia is a renewable energy company based at the tip of Lake Victoria in Winam Bay Kisumu. The company converts waste to energy. Greenergia harvests 4-5 tonnes of hyacinth an hour, which is one of the raw materials used to produce biofuel.

The demand for clean cooking fuels and cookstoves has increased. Consequently, degradation of forest and hyacinth invasion on water bodies has necessitated the need for prudent management of the environment through sustainable solutions. Greergia transforms water hyacinth and other organic waste from Lake Victoria into fuel pellets, charcoal and commercial briquettes can be adopted as a clean green energy source. Greenergia organic waste products are a solution to cater to fast growing industries in the East Africa region; as ideal substitutes against petroleum products/fossil fuels.



Reena Shah

Photo by Alessandro Fusi

Greenergia has a vision to create the world's largest renewable energy center in Rare Beach. To help drive this vision, the company has a production facility, a water purification system and an on-site weather station. The company's objectives are: Maximisation of the interaction between species and biomass that provides Lake communities the basis of food, water, carbon, oxygen, environmental security and sustainable energy. Currently they apply the 3 zones landscaping principle to every landscape restoration plan, for a period of 17 years.

Features of formula 5 briquettes

- The minimum calorific value is 4000 per kg-cal
- Minimum ash content of 5%
- Minimum moisture content of 2%

ASK: *Greengergia is seeking 5 million euros to upscale and PPP arrangement the Government.*

14.5 Seaweed Lake Aquatic Services: Presented by Patrick Odhiambo

Cleaning water bodies

Seaweed Lake Aquatic Services is a Kenyan company affiliated with Ecologists Without Borders of America. The company employs a unique method in ridding Lake victoria and other water bodies of invasive weeds. The method uses a Chinese engineered specialized net fitted with a floatation system. They have the capacity to remove upto 20 acres of seaweed in a day.

The company has teamed up with Ecologists Without Borders to manufacture affordable biofuel out of the organic marine waste.

XV. PITCHING SESSION - TREATMENT TECHNOLOGIES

15.1 Association for Humanitarian Development: Presentation by Khurshid Bhatii

Innovative water filter

AHD was established in 2003 with the main objective of promoting peace, justice, and harmony and uplifting poor rural communities towards sustainability.

AHD Nadi Filter
The major accomplishment in this regard, is the introduction of Bio-Sand Water Filter(BSF) / Nadi Filter in hundreds of vulnerable villages in coastal areas (Jati & Sujawal) to improve access of poorest communities to safe drinking water. The Nadi Filter is an adaptation of the natural process of slow sand filtration. Different sizes of gravel and sand are layered inside the filter/Nadi, with a PVC collection pipe situated at the base of the filter. Contaminated water from rain, surface, or ground sources is poured through the Mutka (a mud pot, smaller in size and different in shape than Nadi) , placed at the top of the filter having small hole at the bottom. The filtered water flows out of the pipe and is collected in a safe storage container to prevent post-treatment contamination.

***ASK:** AHD is seeking Partners & Donors to replicate Nadi filter technology in Eastern Africa (Kenya, Uganda, Ethiopia, Tanzania & Rwanda & Mozambique).*

15.2 Aquaclara Kenya: Presentation by Sijmen Weesie

Water Filtration Program

Aqua Clara Kenya is a non-profit company working in Kenya since 2010. They design & assemble simple, effective and affordable water filter products. Aqua Clara Kenya products mainly use low-cost local materials, making them cost less than half the cost of the competition.

Sijmen Weesie

Photo by Alessandro Fusi

Their main undertaking is developing, distributing and producing water filters based on the hollow-fiber membrane technology. This is the first time membrane technology is being used to create small filters that can be used in household level. Products include: Household water filters for rural & urban settings, school filters and community filter with a capacity of 10,000 liters of safe drinking water per day.

The products mainly target low-income households and schools. Aqua Clara partners with Micro Finance Institutions which provide loans to customers to pay for products in 6-12 months

***ASK:** Aquaclara is seeking partners to help grow the business and distribute products in East Africa. Having managed to break even, they are looking for support to get to the next stage.*

Seeking Investors: With $500,000 dollars Aquaclara guarantees to reach 1 million people within 5 years who belong to the BOP with safe drinking water. Also seeking Impact investment, CSR from companies and Grant investment.

15.3 Basic Water Needs: Dries de Kater

Filtration system with an innovative business model

Basic Water Needs is a brand established over 10 years ago that develops, produces and distributes water purification and conservation products. In this period BWN has supplied their innovative Dutch-designed Tulip water filters to more than 2,000,000 people worldwide, offering safe and durable drinking water products that are simple to use and last for thousands of liters.

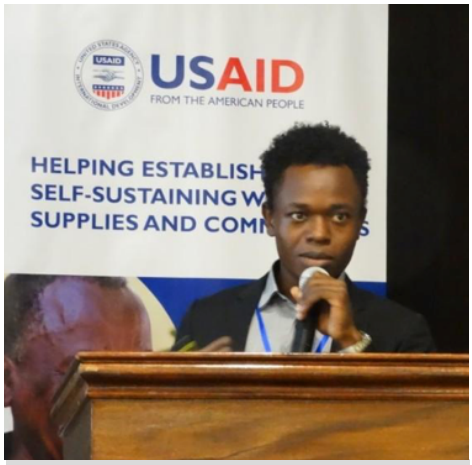
BWN works by combining products, technology and distribution concepts in market based partnerships. One of their ongoing projects is in Migori / Homa Bay /Kisii area where they have partnered with 3 other suppliers and an IT partner from Ghana, training partner from Ghana and a local implementation partner.

ASK: *BWN is seeking expert partners in the field of inventory management, IT leverage, training, advocacy. Seeking Public & Private Partnerships in adopting a market based approach.*

15.4 FlouRid Ltd: Presentation by Brian Chunza

Fluoride filter

FlouRid Ltd is a Social Impact startup aimed at ensuring access to clean fluoride free water for low and mid income households through providing affordable fluoride water filters. Fluoride has adverse effects on people, animals and plants. In people fluoride leads to deformation of bones Skeletal fluorosis and browning of teeth Dental fluorosis. Fluoride can also lead to brain damage in children under the age of 12 years. The fluoride water filter removes fluoride and microbes from water making it safe for human consumption animal consumption and plant irrigation.



Brian Chunza

Photo by Alessandro Fusi

In Kenya, approximately 20 million people are affected by fluoride with 200 million others affected worldwide. The FlouRid filter reduces fluoride by up to 86% using a unique patented formula and is upto 10 times cheaper than the cheapest alternative currently available in the market.

ASK: *FlouRid Ltd is seeking €30,000 grant funding to conduct long-term improvements and run a pilot program in rural Kenya that will eventually lead to scaling up of production and distribution of their filters.*

15.5 Hayat Nuru: Shayat Shone

Safe water for all

Shayashone (SYS) is one of the fast emerging corporate and development consultancy & social Impact products Distribution company in Ethiopia. SYS provides range of consulting services in the area of agricultural commercialization, human resource and investment advice. We also engaged in Import and Distribution of products for household food storage and water treatments.

Nazava Filter

Designed to remove bacteria and dirt from water; effectively removing 99.99% of bacteria from water. Planning to reach 50,000 households resulting in 250,000 people having access to safe drinking water

Filtration and purification

- Ceramic filtration (particulate)
- Activated carbon (chemicals)
- Anti-microbial silver (pathogens)
- Plastic: Food safe PP
- Tested in > 30 international labs
- 99.99% effectiveness

Capacity

- Filters up to 7,000 liters (3 years)
- At 2-3 liters per hour
- Easy and convenient
- Easy installation, cleaning & replacement
- Retail price: $20- $30
- Filter: $8

ASK: *Shayashone is seeking distributors / vendors within East Africa (outside Ethiopia). Also open to PPPs.*

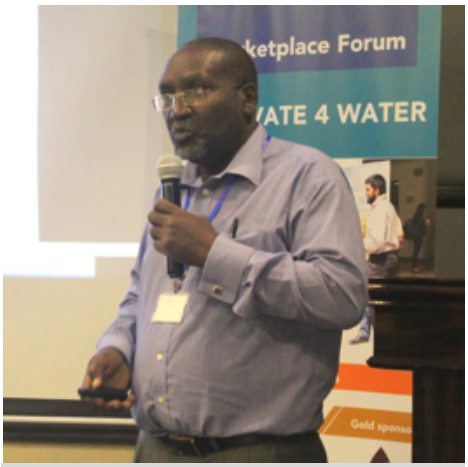
XVI. PITCHING SESSION - PUBLIC PRIVATE PARTNERSHIPS AND ENABLING ENVIRONMENT

16.1 SANA International: Presentation by Alfred Adongo

Local financing for sustainable WASH in secondary schools in Lake Victoria region of Kenya

SANA International is an NGO established in 2000 from a bilateral program between Dutch and Kenyan governments. The organisation's key activities revolve around:

- Community WASH
- School WASH
- WASH Capacity Building
- Networking and Collaboration
- VIA Water: Supporting infrastructure development in learning institutions targeting secondary schools and most immediate communities.



Alfred Adongo

Photo by Alessandro Fusi

SANA has facilitated mobilization of more than Kshs 1 billion into the Sector and Supported Construction of WASH Facilities in over 300 learning institutions and 50 Mini grids Nyanza and Parts of Rift valley;

SANA is conducting a project called Local Financing for Secondary Schools in the Lake Victoria region of Kenya. The project is financed and supported by Aqua For All. the project involves using credit facilities to support secondary schools to get water. Five secondary schools have so far been supported through loans repayable in 3 to 4 years. The project kicked off in April 2018; during this period a number of facilities have been completed.

The project has improved access to safe water to 18,700 people (3700 school based and 15,000 households); improved revenue performance of small water utilities by 40%; and introduced professional management in 4 utilitie.

ASK: SANA International is seeking Incubation Support of €20.000; Capital Co-funding Investment of €100.000 with a 12 Months Grace Period; to double their beneficiary population with €1.000,000 and 12 months Grace period will.

16.2 Quercus Group: Presentation by Wadim Baslow

Collaborative Behaviours and Partnerships For SDG6

Wadim Baslow *Photo by Anthony Nabiliki*

Quercus Group is a niche strategy consultancy firm whose mission is to help cities and regions achieve long-term, sustainable growth through targeted projects. Quercus is Latin for oak. The tree symbolises long-term growth and development. The company is driven by a vision to become the leading go-to consultancy for holistic Green Growth advisory and has projects in more than 25 countries, including Kenya, Ghana, India, Japan, Canada, USA, Germany, Singapore and others spread across the globe.

Quercus supports their clients to embrace and place greater focus on SDG 9 that fosters innovation and SDG 17 that lays emphasis on partnerships. They do this through mobilising a variety of different stakeholders and aligning their actions; focussing on the role of private sector in delivering lasting impact since most solutions are often dropped and not sustained for the long run.

"Enterprises in the area of development have, during this innovate for water forum, presented inspiring market based solutions for the sanitation economy. Particularly their ability to deliver a lasting impact in the sector. Our challenge to them is that the market based solutions should not reduce those living in the poor communities where they work to be 'just customers', but human beings with vast needs. So they should develop models that take this into account," Wadim

In Kisumu, 67% of fecal sludge is unsafely managed. Quercus is looking to foster / support those entrepreneurs already on the ground delivering valuable services in building / cleaning of latrines. The organization also seeks to leverage these entrepreneurs in a more formalized local multi-stakeholder platform for developing, testing and scaling circular economy and sustainable business models. Sanitation is a system problem; thus Quercus is looking for a sustainable model for the system aiming for integration across the value chain.

This is a simple business development process where in its inception, they work with entrepreneurs already active in the community and connect them to a support system (partnership) in order to effectively accelerate their impact. Quercus is also looking at models that involve community members taking up ownership. Considering the fact that 60% of Kisumu residents live in informal settlements (10,000 households); many of whom are willing to invest in the solutions that delivery great impact to them.

***ASK:** Quercus Group is seeking to partner with KIWASCO (Kisumu Water & Sanitation Company) and the Kisumu County Government. They are also seeking grant financing as the model transitions and the entreprises become self sustainable.*

16.3 Jamala Integral Fund: Christina Bini

Overcoming start-up challenges in African economies

Christina Bini *Photo by Anthony Nabiliki*

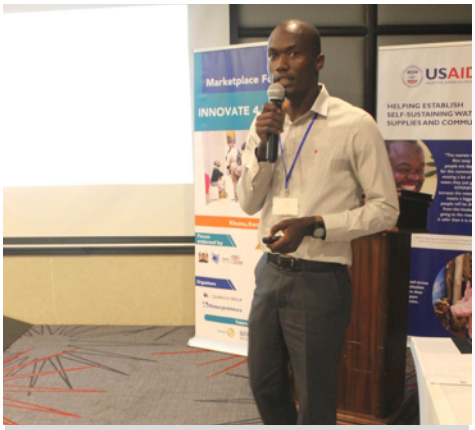
Jamala Integral Fund aims at reaching Africans in the diaspora by offering them investment opportunities in the various programs they are currently running. According to the Central Bank of Kenya, diaspora remittances in the country were $222.55 million (Sh22.25 billion) in March 2018 with 51 per cent growth from $147.52 million (Sh14.75 billion)

Green Space Project: Jamala Integral Fund focuses on effective social and green sustainable innovations in Africa. Their strategy is to elevate the community and at the same time eradicate poverty. The green space project is inline with SDG 3, SDG 7 and SDG 17. The project includes; an innovative space, indigenous knowledge, self-sustainable space, ecoShop and green village.

ASK: *Jamala Integral Fund is seeking Impact Investors, expertise, implementation partners and collaborations.*

16.4 FINISH INK: Presentation by Charles Were

Financial support, training technical & business development



Charles Were

Photo by Anthony Nabiliki

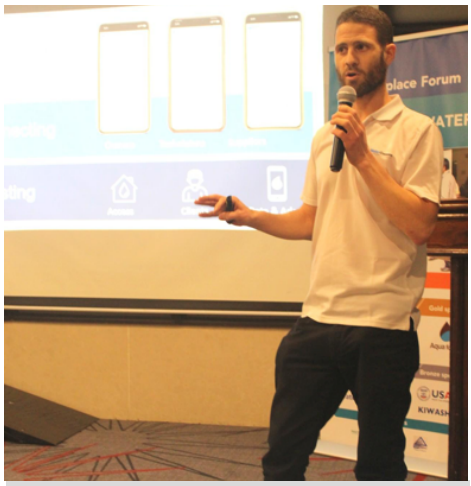
For a long time, sanitation has been regarded as a reserve of the public health sector, which has proved burdening to the sector. As a project, FINISH INK is keen on changing this mindset by bringing on board a number of key players.

FINISH INK identifies all the businesses involved in the sanitation chain and offers them support in form of: technical training; showing them how to market their respective products and services as well as linking them to existing markets. Improved sanitation is realized when the various businesses work together.

ASK: *FINISH INK is seeking start up sanitation entrepreneurs venturing into sanitation and existing entrepreneurs who need assistance san/business modelling.*

16.5 WaterComms: Presentation by Yuval Ziv

Creating a Marketplace application for Maintenance of Water Facilities



Yuval Ziv

Photo by Anthony Nabiliki

WaterComms is an acronym for Water Communities; a company that has created a marketplace for maintenance of water facilities. WaterComms, through its Mobile Networking Platform, the WaterComms App, will increase the accountability and efficiency of technical water services, thereby contributing to the long-term sustainability of drinking water facilities across the region.

Their product aims at connecting owners of water facilities, local water technicians (fundis) and supplies of spare parts in water maintenance (small to large). Thereby boosting access to safe water, boosting clientele for businesses in the sector and assisting water tech companies with access to data and specialized advertising. WaterComms is currently running the pilot project for the technical marketplace in Kisumu and Vihiga.

ASK: *WaterComms is seeking to meet KIWASCO and local water providers; meet water technology innovators who seek reliable technicians and suppliers; learn of practical solutions for testing and improving water quality and social investment + grant opportunities.*

16.6 County Government of Homabay: Presentation by Martin Omulama

Public Private Partnership in Water Services Environment & Natural Resources

The County Government's mission is to provide clean, safe, water supply to all in healthy environment. Their performance summary includes: Availing safe & clean water to all within 5Km radius; Provide affordable waste management to all; Increase county forest coverage to 2%; Promote green energy in services delivery and to develop, promote and enforce legal frameworks within their mandate.

Performance of 3 Private Operators (PO) in Homabay County

1. HOMAWASC0 – Homabay, Mbita, Kendubay & Oyugis Water Supply
2. SUSTAINABLE AID IN AFRICA (SANA) – Left bank Water Supply
3. LOBONYO AND ASSOCIATES – Ndhiwa Water Supply Success story

Success Stories include:

- Left bank - Out of six defunct BHs, 1 is rehabilitated and connected to 3 kiosks
- Ndhiwa - SNV rehabilitated the pump on the 2nd BH which is now working. Each has recruited a project manager.
- Left bank - Out of the 3 water kiosks, 2 are repaired & fitted with water ATM
- Left bank - Bulk meter connected to Ramula health center
- Left bank - Connected water to Ogindo Secondary School via loans for water.
- County in partnership with SNV - Installed & trained staff to operate automated billing systems in all the Private Operators
- County in partnership with SNV - Provided over 100 consumer meters to all the PO's
- County in partnership with SNV – Developed 10 KM of new pipeline for Left bank & Ndhiwa WP
- County in partnership with DUNEA – Rehabilitating pipelines in Kendubay WS – HOMAWASCO
- County in partnership with DUNEA – Upgrading 10 BH's solar pump accessories water kiosk & meters
- County in partnership with LVSWSB and/or World Bank- Augmenting Homabay WS for electric to solar powered - HOMAWASCO
- County in partnership with World Vision – Constructing Kodera gravity scheme – Weir, CFU, backwash & balancing tank & 29 Km 8 inch pipeline from Kodera forest to Omen

ASK: *Homabay County is seeking: Private Operators to show interest to their EOI to operate Sindo, Magunga, Kochia & Kanyaluo WS; Financial institutions that can support their PO's with facilities they need to implement best practices; More non-state actors to come to Homabay to influence lobby catalyst adsorption and/or awareness creation of best practices by duty bearers & PO's in service delivery to citizens; More schools in SANA – leftbank service area to apply loan-for-water; Innovator that can provide solar power to all our water utilities; Innovators that promote value addition in waste management and Innovators with digital solutions for the County water resources and environment management*

XVII. CLOSING PLENARY

Moderator: **Anthony Ambugo (CEO WASPA)**
Discussants: **Joseph Murabula (KIFFWA)**
Matthew Okello (Practical Action)
Marlies Batterink (Aqua for All)
Pamela Bundi (FINISH INK)
Japheth Mbuvi (KIWASH)

The two day forum provided a unique opportunity for innovators & investors to showcase their startups, scaleups and also their respective asks so that more partnerships can be forged, strengthened or deepened. SDG 17 on partnerships remains the fulcrum needed to attain the other goals and targets of the 2030 Agenda.

Antony Ambugo CEO WASPA
Photo by Anthony Nabiliki

WASPA is working closely with the Council of Governors because the mandate of water service provision is now a constitutional role of the county leadership. To ensure that there is good representation from county governments in subsequent WASH marketplace forums, WASPA will engage them along the WSPs. It is important to create even stronger partnerships with government at all levels in order to encourage an enabling environment.
Anthony Ambugo - CEO WASPA

What is the role of enablers in strengthening the uptake of financing and in investments so that WASH enterprises can benefit?

Response by: Japheth Mbuvi (Deputy Chief Of Party at USAID - KIWASH)
Over the last two days we have heard about a lot of innovators that have remained at pilot stage for a relatively long time. We also have technologies that have been developed but the uptake been very slow. As a development partner / enabler, it is my view that there is need for a lot of capacity building among WASH enterprises. The capacity building is mainly to improve operating efficiencies. This will in turn improve the financial statuses of these enterprises, making them more bankable and therefore able to access financing from commercial sources.

There are some WSPs currently at the very low end who at their present state cannot attract commercial financing. These WSPs need to be supported to enable them to improve their working environment in both technical and commercial perspectives. By doing this we will be building capacity and help attract more investment to the WASH sector.

For PPPs to work, we need to show more respect, embrace and support government because they are integral in the success of PPPs.

What would be the best strategy to make this marketplace forum more sustainable to investors as they approach the utilities?

Response by: Marlies Batterink (Sr. Program Manager 3R - Aqua for All)
In the last two days, I have been overwhelmed by the sheer number of innovations, pilot programs and business cases that are solving SDG 6 challenges. It is important to stimulate Private Public Partnerships to create a soft landing and security for the private sector. Which translates to further integration along the value chain to reduce fragmentations encourage good evaluation of supply and demand.

In the water value chain, two typical cases of such integration that I view as good base for further exploration include the FiNISH INK program and iW+. We can develop a similar concept for the sanitation value chain that connects all important players and enable them to jointly approach the market. By doing this, they are able to attract good investors.

What are some of the challenges confronting water utilities in terms of uptake of innovations and having an enabling environment to attract financing? and What are the interventions needed to address these challenges?

Response by: Joseph Murabula (CEO KIFFWA)

Many people are coming up with brilliant innovations to address challenges in the water sector and a lot of financial institutions are coming up with budgets to finance innovations that are bankable. Since a particular innovation would still be at its early stage, there is always a gap between the innovation and how to make it bankable.

Challenges facing utilities in the uptake of needed financing include:

- "Difficulty to embrace change". A good number of these utilities had gotten used to operating through public funding in the form of government subsidies to finance their budgets. Now they are facing difficulties in raising their own monies especially considering the level of resistance towards the processes. This 'resistance' is normally manifested through governance challenges.
- Capacity as a challenge. Since some of the utilities do not have structures and capacity to absorb monies brought in.

Addressing the challenges

- Technology is key in addressing most of these challenges. Aspects such as building systems to solve governance issues, smart metering to ensure minimal human interaction between consumers and the WSPs.
- Use granted finance more to assist in addressing the capacity gaps. Public funding would help build capacity within these institutions as a way of attracting private funding.

Where is the voice of civil society in shaping the role of government in addressing key policy issues that help create an enabling environment for utilities and other sector players to achieve SDG 6 and SDG 17?

Response by: Matthew Okello (Project Officer- Urban Services - Practical Action)

Local, national and international civil societies remain vocal with a voice that is unbowed, and is now louder and clearer.

Our role is to urge county and national government towards enforcement of policies, standards and regulations that have been put in place over time. The shift is to put in place structures through which private sector, community members, civil society and other players can be able to engage with government on a moral equal platform. This is to ensure that the policies are implemented.

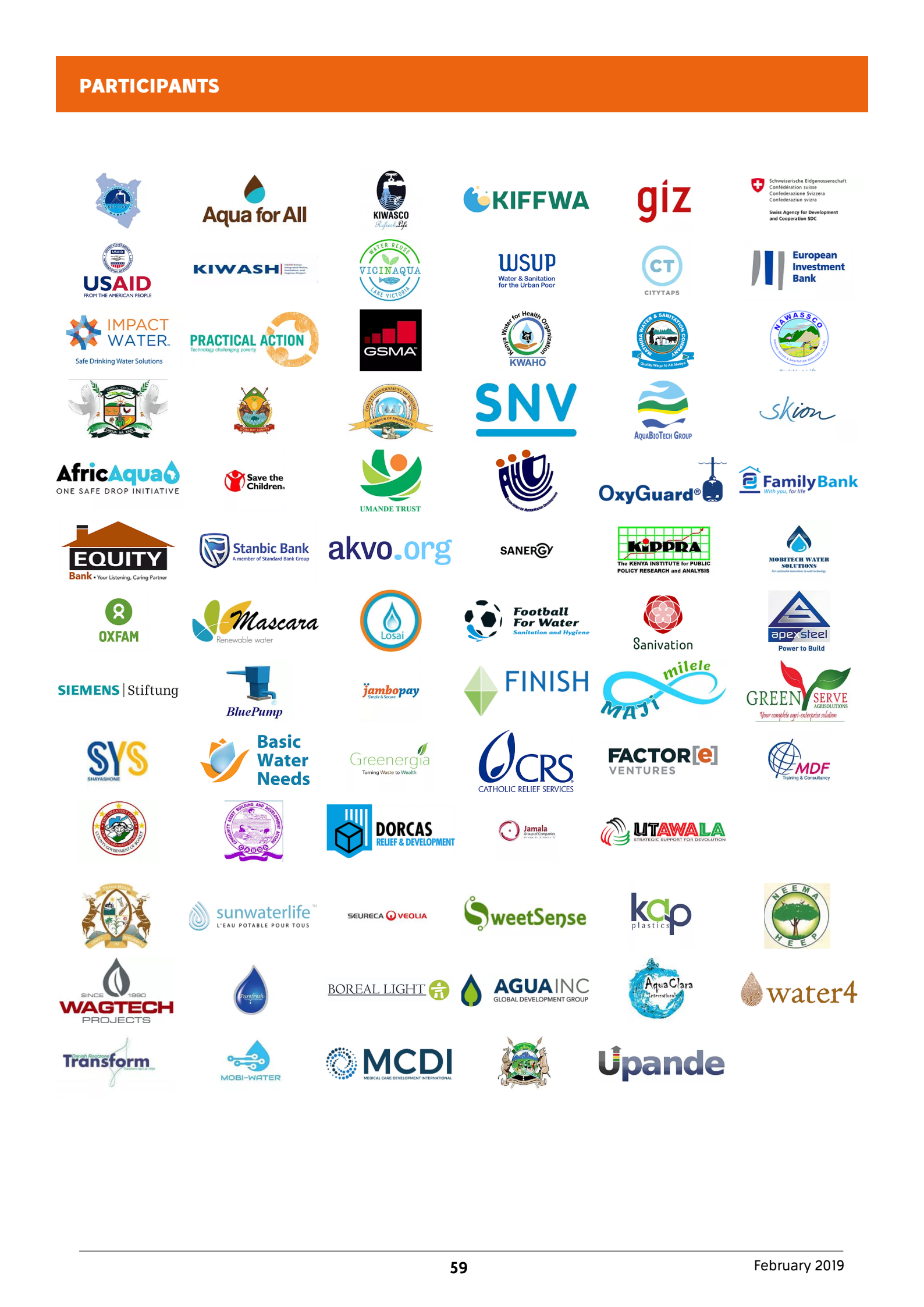
Where is the community in all this?

Response by: Pamela Bundi (Programme Coordinator for FINISH INK Project)

During the two days of the forum, we have heard from innovators, entrepreneurs, financiers, policy makers, utilities, and many more sector players but we have not heard from the community. All the innovations and solutions are great, and are doing good for the communities; but is it what they really want? Is it what they need or is it what we feel is best for them? We need to involve the communities more especially in terms of the innovations we come up with and also awareness on employment opportunities and skill transfer within the WASH sector.

For a WASH business to be sustainable in the long run, we need to be socially acceptable to the people we are serving, preserve the environment and be financially viable.

PARTICIPANTS



Innovate 4 Water - Kisumu

Organized by Quercus Group and Waterpreneurs
Kisumu, Kenya, February 6-7, 2019
Acacia Premier Hotel
PROGRAM (version 5 February) - for information and subject to change

Wednesday February 6		
8:00	Registration and visit of the marketplace/exhibition booths by participants	
Introduction & key note address		
9:00	Forum introduction and expectations	**Quercus Group / Waterpreneurs**
9:10	Keynote address on improving revenue management for sustainable urban water and sanitation services - The Kisumu story	**KIWASCO** - Thomas Odongo
9:20	Keynote address on the state of WASH in Kisumu	**CECM County government of Kisumu -** Salmon Orimba
9:30	Keynote address by the deputy Governor of Kisumu	**County Government of Kisumu -** Matthews Owili
Panel discussion on corporate governance		
9:40	Panel discussion - Corporate governance within the water and sanitation sector. What is needed? *Vision of the Public sector, Private sector, Civil Society*	**Moderator -** Antony Ambugo, CEO WASPA
		Eng. Festus K. Ngeno Chairman of all County Ministers of water, Environment and sanitation
		SANA International - Alfred Adongo
		KIWASH - Euphresia Luseka
		KEPSA - Duncan Kimani
Pitching sessions - Financing & investment opportunities for the WASH sector		
10:00	Providing capital & expertise to support viable water investment opportunities	**KIFFWA** - Joseph Murabula
	TBC	**Family Bank -** Jaffrson Orenge
	WASH Loan products	**Neema Heep Ltd** - Pattedy Nyagah
	Opportunities in Financing	**NYEWASSCO** - Peter Gichaaga
10:20	Panel discussion Moderated by	
10:40	**Networking and break in the marketplace**	
Pitching session - Supporting WASH innovations		
11:10	Sharing experience with private sector	**Embu WASSCO** - *TBC*
	Investing in small and growing business in WASH and waste sector	**Take-a-Stake Fund** - Martin Theuri
	Equity Water Credit Program	**Equity Bank** - Raymond Komen
	Promoting innovation and technologie	**KIPPRA** - Victor Mose
11:30	Interactive session Moderated by **Anthony Ambugo**	
Pitching sessions - Reinforcing the capacity of entrepreneurs and accelerate their activities		
11:50	Mobile-enabled water services	**GSMA** - Leonard Kore
	Capacity Building	**Aquaclara -** Sijmen Weesie
	Capacity Building - WASH Local Solutions Ventures for Women	**GIZ -** Romakala Banda
	Acceleration process	**TBN - Transformation business network -** Liza Maikweki
12:10	Interactive session Moderated by **Anthony Ambugo**	
12:30	**Lunch Break and Networking session**	
Pitching sessions - Safe Water Enterprises		
14:00	WaterKiosk	**BoréalLight** - Hamed Besheti
	Water kiosk in Naivasha	**Purefresh -** Anthony Kamotho
	Safe Water Enterprise	**SIEMENS STIFTUNG -** Imran Jalalkhan
	Innovative water treatment solutions	**Impact Water -** Mark Turgesen
14:20	Interactive session by Waterpreneurs/Quercus	
Pitching sessions - Reinforcing utilities and operators		
14:40	Implementation of an innovative system of leaks detecting on water supply network	**Seureca East Africa (Veolia)** - Emmanuel Corbel
	Innovative piping systems	**Apex Steel** - Charles Gichane
	Handbook on data collection	**AKVO -** Andrew Molo
	Innovative tech	**WAGTECH -** Ruth Wambui
15:00	Interactive session by Waterpreneurs/Quercus	
15:20	**Networking break in the marketplace**	
Pitching sessions - Off grid and smart technologies		
16:00	Smart transformative data driven decisions	**UPANDE** - Mark de Blois
	Prepaid meters	**Maji Milele Ltd -** Marcel Schreurs
	Solar powered membrane water treatment without battery	**Mascara -** Maxime Therrillion
	Sensors / Water point availability	**Mobitech Water Solutions -** Kelvin Gacheru
	Sensors	**Sweet Sense -** Lauren Stover
16:20	Interactive session by Waterpreneurs/Quercus	
FOCUS SESSION - iW+: Increasing efficiency of local water operators Expanding quality, affordable water services to fast-growing urban areas		
16:40	On-premise PAYGO Water	**CityTaps** - Gregoire Landel
	PAYGO Water ATMs	**SunWaterLife** - Christophe Camperi
	PAYGO Water Kiosks	**Untapped** - Jim Chu
	Leasing facility to attract financing - iW+	**Aqua for All** - Sjef Ernes
17:00	Q/A with selected water utilities and operators	
17:20	**Networking in the market place**	

17:50	Closing plenary for day 1	**WASPA** - Anthony Ambugo
18:00	**Networking Cocktail**	

Thursday February 7		
8:00	Welcome coffee in the market place	
FOCUS SESSION - Sanitation value chain and financing		
9:00	Setting the scene: Bridging the worlds of sanitation value chain and financing	**Aqua for All** - Sjef Ernes
9:15	3 Proven Cases: Innovative, scalable & bankable sanitation value chain initiatives	1/ **FINISH** - Pamela Bundi 2/ **Sanivation** - Dickson Ochieng 3/ **WSUP** - Emanuel Owako
10:00	Interactive session moderated by Astrid	
10:40	**Networking break in the marketplace**	
Pitching sessions - Innovative sanitation businesses: Short pitches for investments and partnerships		
11:00	Local waste, garbage, sludge to fertilizer & briquettes	**Biofertilizer -** Abdul Dedya
	Low-cost sanitation solutions in informal settlements	**Vuka Sasa -** Joab Oluoch
	Business models for pit-emptying	**Ghasia Poa / Umande Trust -** Dickens Ochieng
	Sanitation value chain business	**Fresh Life & Sanergy -** David Auberach
	Creating value from wastewater	**Agua Kenya** - Mshila Sio
11:20	Interactive session moderated by Aqua for All	
11:40	Ecofriendly waste water treatment	**Tranzform Rootzone -** James Mawa
	Treatment of waste water	**MDFTraining & Consultancy -** Willem Kevenaar
	Conversion of faecal sludge to fuel briquettes	**NAWASSCOAL -** John Irungu
	Organic fertilizer and waste management	**Eco Holdings Limited -** Edwin Kamau
	TBC	**Mubongo Acrobats** - *TBC*
12:00	Interactive session moderated by Aqua for All	
12:20	Wrap up	**Aqua for All** - Sjef Ernes
12:30	**Lunch and networking**	
FOCUS ON VICINAQUA PROJECT - LAKE VICTORIA Innovation on water reuse and wastewater treatment		
14:00	Self-cleaning water filtration solutions	**VicInAqua** - Jan Hoinkis
14:10	Recirculating aquaculture system	**AquaBiotech Group** - Kyra Hoevenaars
	Real-time Water Monitoring and Management solution	**OxyGuard Int.** - Poul Rosendorf
	Waste to wealth, powering solutions - turning water hyacinth into 'gold'	**Greenergia K ltd -** Reena Shah
14:30	Interactive session by Aqua for all	
Pitching sessions - Treatment technologies		
14:50	Innovative water filter	**Association for Humanitarian Development -** Khurshid Bhatii
	Filtration system with an innovative business model	**Basic Water Needs -** Dries de Kater
	Fluorid filter	**FluoRiD Limited -** Brian Chunza
	Safe water for all	**Shaya Shone -** Hayat Nuru
15:20	Interactive session by Waterpreneurs	
15:40	**Networking break in the marketplace**	
Pitching sessions - Public Private Partnerships and enabling environment		
16:20	PPP in Homabay county with SANA	**County Government of Homabay** - Martin Omulama Mbati
	Collaborative behaviors and partnerships for SDG6	**Quercus Group** - Wadim Baslow
	Overcoming the startup challenges in African economies	**Jamala Integral Fund -** Christina Bini
	Local financing for sustainable water and sanitation provision	**Maseno University -** Leah Onyango
	Financial support, training technical & business dev't	**FINISH INK** - Charles Were
16:50	Interactive session moderated by Aqua for All	
17:10	Closing plenary	**Moderator: WASPA** - Antony Ambugo **KIWASCO** - Carolyne Odero **KIFFWA** - Joseph Murabula **Pratical Action** - Matthew Otienko **Aqua for All** - Marlies Batterink **FINISH INK** - Pamela Bundi
17:40	**Networking**	

Friday February 8	
9:00 - 12:00	Field visit (optional) Initial operation of a pilot plant for (waste) water treatment for sustainable fish farming in Kisumu (Kenya) with the EU project "VicInAqua"

Questions/feedback from the audience emerging from pitching session on financing & investment opportunities for the Wash Sector

- *The first question from the audience was who the panellists would have liked to have sat on the 4th seat, which was empty.*
- *The second question was directed at Mr. Orimba to clarify what the correct position was with regards to county ministers sitting on the board, since it had been stated that they are not supposed to do so.*
- *The third question wanted the opinion(s) of the panel what was hindering achievement of the right corporate governance environment. What the blockers are right now in Kenya and in Kisumu county; What the key issues affecting governance in the water and sanitation sector are.*
- *Mr. Orimba, believed the 4th seat belonged to the financiers/donor community. As much as water service provisions was devolved, it needs a lot of funding; the funding from the national government is insufficient to clearly solve the issue of water service provision, services and facilities; to get universal access to clean water and to try to reduce the distance covered by citizens.*

On the 2nd question, he felt that there were a lot of Laws in Kenya for which implementation was an issue;

Water service provision was devolved in 2016, and since the county governments are owners of the utilities, it is only proper for good governance, that the counties be able to give a strategic direction on where they want to put priorities and where they want improvements in terms of managing the facilities.

This would need to be regularised since the county governments are the ones that hold the direction of each and every county's governance structure. Sitting on the board gives the county government and its administration an insight into the day to day activities of the water utilities. It is an issue which is proper, and it should be encouraged in terms of getting the water utilities to move in the right direction.

Many water service utilities have gone down because of political interference. Such interference includes the wrong people doing the right jobs; interference in terms of the day to day activities of the organisation. Sitting on the board thus allows prioritising on areas where focus needs to be put. The CEC of finance sits on the board because of funding from the county gov't in order to prioritise on water service provision issues and increase on the allocation as advanced by Mr. Odongo.

On key issues affecting governance, it is important to look at where we want move, how we want to take the water sector; and appreciate that there must be clear collaboration with the water service providers, in looking for funding from donors or commercialisation of this sector through commercial loans. Counties must be able to know how they are going to pay back loans, because loans are often the only way out in terms of funding projects. Most people are looking for grants that are no longer available. The question therefore is whether the facilities can be able to clearly pay back the loans and in time; that they have the right structure and establishment to be able to look at how the revenue comes in and whether they can pay the loans or not.

Luseka believed that the issues on water governance were too many given the time constraints and had already been highlighted by previous contributors. She felt that the person on the 4th seat should be a private sector actor; more than a financer, an individual who would be able to demystify the role of the private sector actors; moving beyond talking about the issues of financing. They could come in with other agenda in the water market. Social entrepreneurs could also have an opportunity to bring in their

innovations; to see, not only their innovations and adoption, but also to get real case scenarios on what other utilities, like Nakuru Water Company, that have adopted their innovations are doing. How they can support water service providers to also be market ready for financing; how others can also become innovators in the market; It would be nice to see, how they can also support on business development strategies to the water service providers and especially on the issues of corporate governance. Rather than just refusing to invest in these utilities because it has too many problems and all that. To explore what it is that can be done to ensure that they are more market ready.

It would be ideal to really see them come in into nurturing the capacities of water service providers towards making them to be creditworthy.

Mr. Odongo felt that the person to be in the 4th seat should be the private sector player.

On matters that hinder progress; he mentioned the first as inadequate management capacity within the utilities; both big and small utilities. The second one was capital inflows where it is estimated that the Country needs Kshs. 100B per year to meet the 2030 vision, of which only about Kshs. 20B was availed, all together. That gap needs to be bridged through innovative financial models and involvement of private sector players.

Finally, he urged the counties to do things right and follow regulations as set out. He said that the Law was clear that National Laws take precedence over County Laws.

The moderator, Mr. Ambugo, brought the session to a close by commenting that there was a budget deficit of around Kshs. 1.1 Trillion as per Mr. Odongo's estimate of Kshs. 100 Billion per year; the challenge for the sector players was to look outside the box and figure out the best way to engage the private sector. He clarified that the empty seat was for the Kenya Private Sector Alliance, KEPSA, who were unfortunately unable to attend the forum. He stressed the importance of the forum as being an opportunity to network in order to collectively come up with innovative solutions to solve the identified myriad of challenges.

Questions/feedback from the audience emerging from pitching session on financing & investment opportunities for the wash sector.

- *The first question was directed to Neema Heep, with the participant wanting to know what they are doing to expand their coverage to Kisumu County.*
- *The second query was to KIFFWA, wanting to know why they were paying for expenses that they potentially would not be able to recoup.*
- *The third question, from Patrick Alube, Executive Director of Kenya Water Health Organisation, wanted to know what plans the presenters and their organisations had in as far as capacity building of their recipients/beneficiaries is concerned, in order to create and sustain overall change.*
- *The final question was to family bank from Engineer Moses Jura, wanting to know the conditions for financing reduction of non-revenue water and last mile connections, and how different the terms are from WSTF's commercial financing option.*
- *Mr. Nyagah from Neema Heep responded that they are not yet large enough to be able to expand into Kisumu City, but that the goodwill was therein to expand to the entire country if they were able to access the requisite financing/investment.*

Mr. Orenge from Family bank explained that they have partnered with SMEs who play a role in the WASH sector so that WSPs or WASH enterprises can acquire SMART meter facilities. The applicant acquires Smart meters from the supplier, and Family Bank takes that as a facility, and repayments come from collections that these WSPs or enterprises are making from the consumer. On last mile connection, we are partnering with the various water service providers, so that they take on a facility of say Kshs. 20 Million; depending on the number of connections that they are projecting. When that facility is given

to the WSP, the various new connections are done, and the revenue that is collected from water or sewerage service provision, from the consumers, is used to pay the loan back.

KIFFWA CEO explained that water was inherently a risky sector, and that a lot of people fear starting projects. Especially larger projects, that attracted many risks; people are sceptic to put their money into such projects. We come in with a Convertible Grant. we help you with taking the early stage risk; give you the money that you need to do a feasibility study; the money that you need to do with the technical studies; the money to do the environment and social impact assessment; we give you the money for legal support.

Eventually when you need money for construction and operations, we assist raise that money. Once all this is done, you no longer need us, so we get out. If the project succeeds, you are obligated to pay us back with a small premium, so we can support the next project. That is how we make our money. If we get to that point and you don't want us out, we can still stay as shareholders. We convert the grant to Equity. If you want us to stay through the early stage, we can do so, and then get out. However, after all that work, if the project fails, then we write off the amount; so you are not obligated to pay us.

It is real risk sharing, ensuring that we walk with you until you succeed; so that the project can happen. That is our interest; ensuring that the project happens; and we are not allowed under our rules to own those projects; those projects will be owned by you; we will share the profits. We fund up to 50% of the development budget.

On the question of how we build capacity; we get you access to technical assistance programs; you'll get access to behavioural change; for instance, if it is an irrigation project; since most of our farming is subsistence, we will help you get off-take agreements. Which means you must now operate on commercial principles. For everybody that we partner with, we ensure that they have the right assistance; the right technical support to be able to enable the project to succeed.

Questions/feedback from the audience emerging from pitching session on supporting wash innovations

- *Question to Mose from Mr Mwanzi from Take-a-stake querying his emphasis on hand-holding and the prudence of this. The query sought more clarification on whether coaching and mentoring were adequately factored.*
- *Question, directed at KIPPRA, sought to hear more about how the government can be roped in to provide a soft-landing for private sector actors in developing policies to encourage innovations and technology.*
- *Question 3 challenged Equity Bank's sit-and-wait approach asking if they were actually going out into the market to search for customers.*
- *The fourth question asked for a clarification on the risks of lending to the bottom of the pyramid in the WASH sector, since the assertion was not supported by experience in the sector.*
- *Question directed at SNV, wanted to know what their experience was in ensuring that investors have the means to undertake actions necessary to achieve results in Performance Based Contracts*

Mr. Mwanzi clarified that hand-holding must go along with the coaching-mentorship model and any other forms of business support required by the SGBs. The funding partners focus on the lending to the SGBs, but do not have the capacity and even the time to walk with them. The SGBs are therefore linked with other partners who have vast experience in other forms of business support.

Mr. Komen in response to the question of high risk of lending to BOPs, clarified that the risk is perceived based on the fact that most people in the BOP do not have collateral; the bank is therefore unable to the desired scale that they would have in an ideal situation where the risk at the BOP was contained.

In response to the question on marketing, Mr. Komen clarified that most people view provision of water and sanitation as a government job and would rarely take loans for these services or facilities. He stressed the importance of sensitisation of customers in WASH matters.

In response to the question on policy to KIPPRA, Mr. Mose commented that domestic innovators needed to acquaint themselves with the processes for patenting of their innovations, and the protection that comes with it. He added that there was an issue of process, of protocols in government and incentives that needed to be given in order to encourage patenting. He clarified that part of his role in the forum was to create a policy environment awareness. That there are various institutions established by the government and aimed and promoting innovations and technology. These include NACOSTI, KEBS and KIPI.

He spoke about the Buy Kenya Build Kenya policy plans, and a current research and report that KIPPRA were working on, which would recommend interventions by the government that would improve uptake in innovations and technology.

Mose talked about the need for an integrated approach by government institutions to ease doing business in Kenya and eliminate duplications and challenged the government sector players that were in attendance to consider this.

Mr. Ambugo assured Equity Bank that the risks associated with lending to water service providers had been adequately addressed in Companies Act 2015 and Water Act 2016, and that many WSPs had moved into commercial financing, and that a number of banks had given credit development loans to a good number of utilities. There was a big financing deficit in the Water Sector, an untapped opportunity for local banks, and the bank was encouraged to engage a water and sanitation specialist to look for bankable projects. For instance, Nyeri Water, which has been the best WSP for the last 10 years had gotten a loan from German Development Bank.

Mr. Amadi, in answering the question on PBCs, explained that there must be attempts to allocate risks to the private party, and to define the roles of the private party and funding institution. So when the private party comes in and supports a proposal; they need to propose the activities that you are going to do and their level of investment. They will also need to do a baseline study to identify any issues, so that this may be used as a basis on which targets will be set. These targets will form the contract that they will sign between the private sector and the funders.

Questions/feedback from the audience

- *Question one sought to find out if the GSMA payment platform was restricted to handle bill payments only, or if it could be tailored to receive other types of payments, such as deposits, reconnection fees and sewer only bills, with the details adequately captured in the system. And whether any forms of analysis done on the data from these mobile initiatives.*
- *The next question was to Ms Banda, with the participant wanting to know how, if at all, men had been involved in the SOLVE Project.*
- *The next contributor commended women for their greater effectiveness and reliability is social entrepreneurship. He wanted to know how he could work together with them in matching the Zambian and Kenyan social entrepreneurs needs.*
- *How do companies that have been operating informally can be assisted to bridge the capacity gap between themselves and more institutionalised actors.*

In response to the first question, GSMA confirmed that they actually do analysis at the end of the project for most fundees that are given money, with an in-depth analysis for some of them. As to whether the systems are talking to each other; being able to categorise payments. It is something that we are also

struggling with. Primarily because most of the companies approach them looking to integrate mobile payment solutions into an already existing system and getting the systems to talk to each other can sometimes be a challenge. However, where a full suite of a solution, rather than just a component, is provided to a provider, then it is easier to factor this in and have the systems talking to each other.

Ms Banda expressed willingness to network with the contributor who had proposed a collaboration for the benefit of Zambia and Kenyan communities. On the question of whether men were involved in the projects, she responded that the WASH Sector is highly technical and that men have been participating in the networking program and in capacity building, as they were more versed with this technical area. She added that women would have to work hard to catch up with men, and that their economic empowerment was targeted towards girls and women. That said, she was hopeful that some men may be brought in to assist in the running of the business.

On the last query, Ms Maikweki confirmed that they have some across such companies that have been operating for up to 15 years without any formal structure. Those that have a good business, a viable product or service that is creating impact, but that are unable to connect immediately with the investors because their businesses need to be operationalised; ensuring that they have audited accounts and all the other documentation that is needed to be attractive to potential investors. On the same question Ms Banda commented that resource centres that she was referring to as cooperatives would be ideal for such businesses requiring formalisation and acceleration.