**Outcome Document:
SuSanA 27th Meeting - World Café**

sustainable
sanitation
alliance

Digital approaches in sanitation

Introduction:

Grace Mwanza Ndashe (LCC) and Jakob Kisker (WSUP) moderated the digital approaches in sanitation table. The table discussed two main questions:

1. Examples and opportunities: What are the digital approaches the table is aware of and what are possible opportunities for digital approaches to improve the sanitation chain?
2. Skills: How do we ensure that sanitation service providers, governments and users (e.g. households) have the skill set to operate/use digital systems?

Summary of the discussion

The table participants mentioned the following digital sanitation projects that they were aware of:
1. The Lusaka Ministry of Water is using a GIS app (for community volunteers) to measure monthly sanitation updates regarding the status of rural pit latrines (privacy aspects, cleanliness, OD points).
2. Lusaka is creating a digital customer database (app) to manage OSS customer payments, using payment points to sign up the customers for the database to match with systems for water services and FSM.
3. Lusaka City Council (LCC) is introducing an enforcement system to digitalize the whole system of LCC, including a tracking system with inspectors using tablets to better manage customer data.
4. WSUP developed a toilet database for Lusaka.
5. Sanitation mapping of facilities using ODK software.
6. The GIZ Fit for School (F4S) developed two apps to 1) monitor the status of WASH infrastructure in schools and 2) a costing app to calculate the needed budget for operation and maintenance for WASH infrastructure in schools.
7. WSUP and the project partners BoP and UX are in the process of developing the app PULA: a customer acquisition and tracking tool for vacuum tanker businesses
8. Weyonje is an application to enable licensed waste emptying service providers in Kampala City to manage and track job orders. Service providers are able to capture & track their job orders and those received from the Kampala City Council Authority (KCCA).
9. SweetSense partnered with Sanergy to monitor the latrine filling status using a sensor cube that has been integrated into latrines. The SweetSense platform monitors a.) Each use of the latrine, b.) the approximate fill level of the waste receptacle, c.) The GPS location of the latrine. Via GSM, the system notifies an online dashboard when a waste receptacle requires servicing.
10. KoBoToolbox, developed by the Harvard Humanitarian Initiative, is an open source suite of tools for data collection and analysis in humanitarian emergencies and other challenging environments. It has been used e.g. in Laos for verifying the construction sides before processing payments to suppliers.
11. The AKVO (flow) toolbox can be used to monitor payments.
12. Gather uses data intelligence to get toilets to underserved people

In addition to the existing digital programs and applications, the participants stated that many governments are moving towards digitalizing their data collection and management systems and moving away from paper based records.

The participants identified the following *opportunities* for digital approaches to improve the sanitation chain:
1. Improved coordination among stakeholders.
2. Easier verification of digital data.
3. Reduced costs through a switch from expensive paper based systems to digitalized systems.
4. Using sales agents to collect missing data, as they are already collecting data to sell their products, will keep the costs low.

However, the participants identified the following *challenges* that still have to be addressed in the future:
1. Cheating the system is always possible (paper-based and digital), but the effort to cheat the digital system might be higher (e.g. remove a tracker).
2. Data quality as an issue and needs to be monitored regularly. Regular data inspection is expensive, so it is still a question how to keep the information/data up to date in fast moving environments (e.g. in some peri-urban areas).
3. There are already too many tools being designed that all tackle the same or similar issues. There is a lack of clarity of what is already existing and the danger of reinventing the wheel.
4. It is a challenge to know how to pick the right tool for the right activity. Capacity building for digital solutions is needed.
5. There is a lack of open source tools and of fair principles in place to share data amongst actors. Private operators often want to keep the intellectual property.
6. When transforming existing paper-based information into digital databases, governments tend to lose the possibility to re-think the type information that is being collected and even increase the amount of data being collected digitally. Digital databases should rather be set-up from scratch reducing the unnecessary data that is being collected and making collection processes leaner.
7. Data privacy and data sharing with the private sector is a big challenge, as big corporations also want to use the data for other purposes, offering subsidies for the sanitation data gathering.
8. Decisions tend to be made off the shelf rather than designed for the specific context.

The following *skills* required to enforce digital systems, how to encourage people in digital solutions and identify who should be responsible/included in managing and maintaining the software were mentioned by the table participants:
1. The end user of the product needs to be included in the design process (e.g. the visualisation) from the beginning and continuously involved in the testing and adaptation to start the knowledge transfer from the beginning - Human centred approach.
2. Have a careful and stepwise approach/transition from paper based to digital systems.
3. Keeping it simple! Using limited data to not overwhelm the user, having a more visual system, not showing too many numbers; designing modular systems.
4. The digital solution should be easier to use than the old system – the benefits should be clearly visible, including financial benefits (especially when developing a system for a ministry as a donor) to encourage ownership for the new system from the beginning.
5. Formation of a TWG within a ministries (including the IT-, finance-, HR-, engineers-departments).

Grace Mwanza Ndashe (LCC) presenting the table discussion summary.

Table rapport provided by: Mintje Büürma (GIZ)