

## **Webinar Q&A: What does an enabling environment look like for urban sanitation?**

### **Bangladesh**

#### **1: % of septic tank directly linked with drain?**

Answer: We believe that 69% of septic tanks directly connect to drains.

#### **2. Who paid the capital costs for the original tankers under SWEEP?**

Answer: Just considering the capital costs of the tankers, then UNICEF paid for the original tanker in Dhaka (now leased out by DWASA), and WSUP paid for two tankers in Chittagong (now leased out by Chittagong City Corporation). If we consider other capital costs associated with SWEEP services, then the WASA and the City Corporation pay many more times more the cost of the vacuum tankers by providing land for dumping and treatment. When SWEEP first began, nobody knew that it would be such a commercial success as FSM businesses were unconventional and we didn't have enough historical data to forecast or predict demand. But the success of SWEEP made WASA and City Corporations more confident that investment in tankers is worthwhile. As a result, WASA and City Corporations have repeatedly said in meetings/workshops and in interviews that they will buy tankers themselves in the future, using three probable sources:

1. They will approach more donors to ascertain interest,
2. They will ask the Ministry of Local Government Rural Development & Cooperatives to give an allocation for purchasing tankers,
3. They will buy the tanker using their own income (possible for both WASA and City Corporation).

In this regard Rangpur City Corporation are already a good example. RpCC has been given a vacuum tanker by MLGRDC (under a project implemented by the Ministry's Local Government Engineering Department) and now they are operating it under the SWEEP brand.

#### **3. How long did it take to formulate the implement regulations?**

Answer: The Institutional and Regulatory Framework(s) (IRF) is the result of two years of lobbying the government by WSUP and other like-minded organisations, from developing to finally signing into law. It has now passed into law and WSUP is working to develop an action plan based on this IRF, while working closely with government to orient the utilities in their new role under the IRF. The IRF will gradually be implemented in urban, semi-urban

and then rural areas. The government and other sector players have set an approximate target that by 2030 the IRF will be fully implemented across the country, although realistically it could take longer.

#### **4. What is meant by a "flexible tariff"?**

Answer: By flexible tariff, we mean designing a tariff strategy through which SWEEP's services will be affordable for different income groups. This is achieved by offering different price points while keeping the service level at the same high standard. SWEEP follows such a pricing strategy, with two different price points: one is US\$ 7.5/m<sup>3</sup> for low-income customers (40% lower than the standard price), and the other is US\$ 12.5/m<sup>3</sup> for high-income and institutional customers. More information about how WSUP balances financial viability and user affordability can be found [here](#).

#### **5. On what information did they set the flexible tariff - tax system or by survey?**

Answer: The Bangladesh Bureau of Statistics (BBS) survey defines a 'low-income community' according to their geographic location i.e. those living in a slum. Low-income customers are identified by SWEEP as those living in areas identified by BBS, plus those who use shared toilets and/or water points. These customers are offered a lower price. Low-income people earn much less than the taxable income.

#### **6. Would the contract (PPP) in the new potential cities (Rangpur, Barisal) include a 30% LIC from the beginning or are you expecting a similar, progressive, inclusion of the poorest customers over time?**

Answer: The two situations are very different - when we first designed the SWEEP model, we prioritised commercial viability and were not in a position to impose more conditions on this model in case they hampered the business. But now we have evidence that demonstrates that the existing level of demand, combined with flexible pricing strategy and proper customer portfolio serving 30% from LIC, is a good deal for SWEEP. So we are in favour of including this clause from the very beginning of launching SWEEP in Rangpur and Barisal.

#### **7. In your introduction you mentioned that Bangladesh has very low rates of open defecation but only 60% of the population use improved sanitation. How could this be, considering that Bangladesh has low rates of OD.**

Answer: Bangladesh has low rates of open defecation as defined by JMP i.e. those with no access to toilet, disposal of faeces in open spaces etc. Most of the country can now access a toilet, but only around 60% of those toilets are counted as 'improved' i.e. a large number of people still use pit latrines without slabs, hanging latrines or bucket latrines.

#### **8. What is the open defecation rate in Bangladesh?**

Answer: According to the JMP, 0% of Bangladeshis defecate in the open. However, there is some evidence that open defecation persists in some urban areas of Bangladesh (e.g. [Oxfam, ITN-BUET 2014](#)), although this has not been captured in the official data. More indirectly, because there has historically been a lack of attention paid to on-site sanitation beyond containment and FSM more broadly, very little of the sludge collected in millions of on-site facilities is properly collected, transported or treated. A great deal of sludge therefore

enters the environment untreated – either through improper emptying of latrines, or because septic tanks and toilets are directly connected to the storm-drain network. This has much the same effect as open defecation would have on the environment and the population's health.

## Kenya

### **1. Are the treatment facilities dimensioned with sufficient capacity to treat the "additional" FS?**

Answer: No treatment facilities exist but a little modification has been made at the stabilization pond to help accommodate the sludge through proper screening during disposal to remove solids for drying and burning.

### **2. Is Gasia Poa collecting FS themselves, or do they sub-contract collection to labour workers?**

Answer: Gasia Poa collects and transports waste for disposal themselves, through their properly equipped emptiers.

### **3. Are there any problems being experienced with the state of the sanitation plants and the technical know-how of the operating staff which can influence the overall partnership?**

Answer: The KIWASCO plants are old models and so breakdowns are frequent, but Gasia Poa disposes of faecal sludge at the waste water stabilization ponds where staff have been trained on disposal of the sludge. Management of solids from sludge was a serious challenge but a chamber is being constructed for burning of the dried materials at the site.

### **4. Is there a problem with solid waste and silt in the pits blocking manual pumps such as the Gulper Mk2 developed in Nairobi or is it done with buckets and manual tools?**

Answer: Buckets and manual tools are used due to solid waste blocking Gulper machines.

### **5. Who has the actual mandate of ensuring sanitation is effectively undertaken i.e. is it KIWASCO, County Govt or County Health Devt? What is the role of the national regulator- WASREB**

Answer: The institutional mandates are not well defined, since KIWASCO only handles sewerage while other sanitation services within the city are provided by the City Board and County Public Health Office. WASREB's mandate is water, although an authority has been proposed under the new national policy for the creation of a sanitation regulatory board.

### **6. It is not clear to me to get what makes them comply with the SOP? Licence permitting?**

Answer: Gasia Poa has a brand name in solid waste management but has strong interest to diversify into pit emptying and as such they are willing adhere to the SOPs to be able to penetrate the market. They are also licensed by the Public Health Office and National Environmental Management Authority.

**7. Now that the funding in Kisumu has come to an end, is there a plan to follow up on the County Sanitation Policy review and approval? And on supporting Gasia Poa?**

Answer: Yes. We still have a broader mandate to ensure that the county adopts the Policy and enacts the bill for enforcement. WSUP continues to support the county through training on key sanitation areas and influencing other related policy frameworks.

**8. Would be useful to get a sense of costs to provide these services and how they are financed? What do the revenue streams and payment models look like?**

Answer: The major costs of providing the pit emptying service are transportation, labour, personal protective equipment, and chemicals. Transportation is the largest cost (around 40% of the revenue generated is spent on transport hire and fuel). The company hires transport as required, and this makes rates high compared to illegal emptiers.

Gasia Poa developed a financial model which has illustrated that the business can break even at 23 emptying jobs per month. The company is positioning itself for financial support from commercial banks by creating synergy between the solid waste management aspect of the business and the pit emptying side of the business.

**9. What is market penetration of Gasia Poa? % of waste in Kisumu?**

Answer: The market penetration is still below 10% coverage in the low-income areas.

**11. What traction has been gained on providing planning services to other counties in Kenya?**

Answer: Each county needs to have baseline data on the need for sanitation services and the budget allocation for provision of such services. Data driven planning makes negotiation for citywide planning easy.

## Zambia

**1. Are there issues with groundwater quality (diseases) because of numerous latrines and soft soil?**

Answer: Yes, a high water table combined with poorly constructed pit latrines can lead to outbreaks of water-borne diseases like cholera, as the pits can leach their contents into the soil or overflow during the rainy season and contaminate drinking water sources.

**2. Did you create an alternative for waste disposal? Is the informal peri urban population (about 1 million) in an economic position to afford technical sanitation improvements?**

Answer: The only alternative available for solid waste disposal is to put it in refuse bags that are collected by Community Based Waste Management Enterprises operating on licence from the City Council. A willingness to pay study conducted during the pilot for pour flush toilets in Chazanga indicated that people would be willing to pay in instalments over time.

**3. How do you deal with MHM wastes in the pits?**

Answer: The problem is that culturally (even if the SW collection services are available and even affordable), it is taboo for menstrual waste to be seen by anybody. The common practice is to dump it in the pit or burn it. WSUP's quarterly and annual behaviour communication campaigns have a component of MHM and solid waste disposal.

**4. Did you experience that high cost of water hampers the upgrade to pour flush toilets? if yes, do you have a pro poor strategy to support this upgrade? Did you experience problems with the operation of pour flush toilets after installation due to high water costs?**

Answer: Indeed, the high cost of water does hamper upgrading. As indicated in the discussion, the pour flush toilets were tried in a water-stretched area, typical of many peri-urban communities. In addition, the nature of the toilet is that they are low volume - 2.5 to 3 litres - and grey water is ideal. Therefore, PUA communities do not need fresh clean running water for the toilets to function. Leftover water from laundry or dishwashing can be used.

**5. What is the current status of the Lusaka sanitation program?**

Answer: The LSP is a 5-year project and we are currently in year 3. It ends in 2020. As regards the WSUP component (developing citywide FSM business), we are in month 5 of phase 1 which is 10 months overall. Phase 2 begins immediately after and is 18 months long. The first phase focuses on the development of a business plan while the second phase is implementation through capacity building with LWSC.

**6. As per my earlier question re Kenya, it would be interesting to know what the costs are and how they are financed and whether the privately provided services are affordable to the lower income households and if not affordable, if there is financing to subsidize this service**

Answer: The business is currently operating on a subsidised basis. The Water Trusts meet 40% of the cost (realised from sale of water at the kiosks), and the remaining 60% is recovered from emptying fees. The business does not factor in treatment fees. The service is affordable in that the alternative has a much higher cost i.e. burying an existing full pit and digging a new one. The subsidies are directed towards the operational costs and not consumers. However, the prices of the service are not cost-reflective and have not been adjusted for inflation since inception. More information about how WSUP balances financial viability and user affordability can be found [here](#).

**7. This is with regard to the standards under development for FSM and sludge for reuse. Are you adapting any existing sludge standards e.g. USA EPA or South Africa to the local context or starting from scratch?**

Answer: International best practice was the foundation of the exercise. At the inception workshop, there were a number of foreign experts who input to the exercise. In addition to this, NAWASCO have attended a number of knowledge exchange missions in other parts of the world.

**8. Is WSUP delivering on schedule on its contract to develop FSM for Lusaka? If not, what are the main blocks and lessons?**

Answer: Yes, we are. We were behind schedule only on our first deliverable - the market assessment - as we ended up completing a more robust assessment than initially indicated. The more we interacted with stakeholders, new issues came up which we had to address. In addition to this, we had challenges on data collection as well as developing maps for Lusaka. However, since we were doing this task simultaneously with other activities, we were able to get back on track.

## General

### **1. You have portrayed your achievements in 3 regions will you hold similar webinars in other areas such as Ghana. Also, what sort of people are you looking for in terms a recruitment?**

Answer: We are not currently planning to hold a webinar about our work in Ghana. We are always keen to share our experiences with the sector, though, so a webinar on our projects elsewhere is always a possibility. In terms of recruitment, that depends on the role! We advertise all open vacancies in all countries on our website here:

<https://www.wsup.com/vacancies/>

### **2. Please share copy of presentation**

Answer: The presentation slides and a recording of the webinar can be found on the WSUP website here: <https://www.wsup.com/blog/what-does-an-enabling-environment-look-like-for-urban-sanitation/>

### **3. Are there plans to replicate studies in other African countries e.g. West Africa?**

Answer: This particular BMGF-funded programme focused on Bangladesh, Kenya and Zambia. WSUP has permanent offices in three other countries, including Ghana (the other two countries are Madagascar and Mozambique). The lessons learned from this particular programme has informed other projects being undertaken in those three countries, more of which can be learned about on our website here: <https://www.wsup.com/where-we-work/>

### **4. Can we see outputs from the 2-year assessments please? Could we use it EIB copper belt work or Ethiopia etc. Yes please scoring methods etc.**

Answer: The publications from the first two years of the BMGF programme can be found on our website here: <https://www.wsup.com/insights/learning-from-innovation-in-sanitation-business-models-prefabricated-septic-tank-distribution-in-chittagong/> and here: <https://www.wsup.com/insights/learning-from-innovation-in-sanitation-business-models-shared-services-and-container-based-sanitation-in-kisumu/>. In terms of the indicators and scoring of the Sector Functionality Framework, we don't yet have any publications publicly available, but are very happy to share more information if you get in touch with us directly: [erl@wsup.com](mailto:erl@wsup.com)

### **5. Because the WSUP initiative, focuses on Africa, Eastern Europe, Asia, and America's little or nothing?**

Answer: WSUP has permanent offices in six countries in Africa and Asia: Bangladesh, Ghana, Kenya, Madagascar and Mozambique. Building on these experiences, [WSUP Advisory](#) provides consultancy services to clients in multiple other locations (e.g. India, Sierra Leone, Ethiopia, Tajikistan). WSUP does yet have a permanent presence in the Americas.