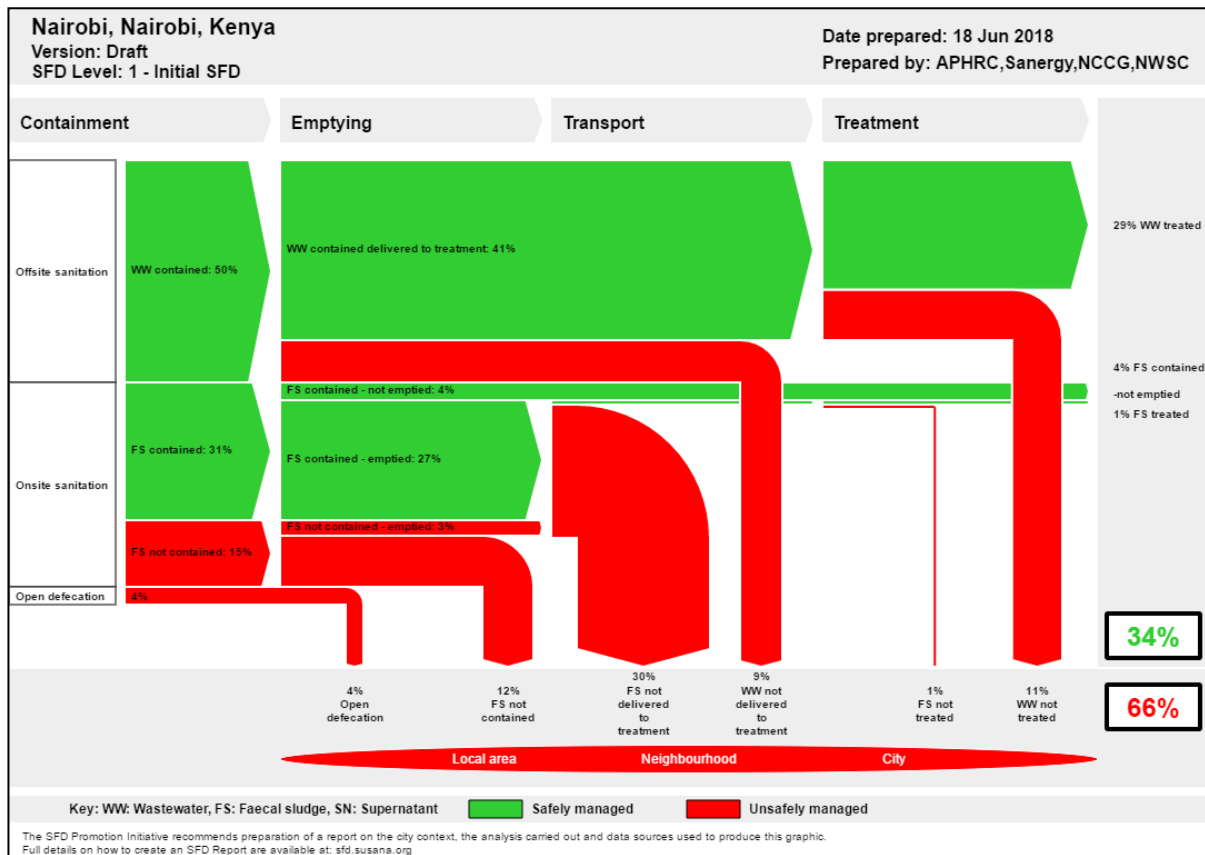


# SFD Thinking

## SFD creation process and impacts – Case of Nairobi, Kenya



The SFD report produced for Nairobi City involved a broad array of stakeholders from the outset. This resulted in a high degree of cooperation, as participants “bought-in” to the concept, fully engaged in the development process and now collectively own the results.

This ownership has increased awareness and acceptance of the sanitation realities of the City and provided a strong impetus for change.

## SFD Thinking: SFD creation process and impacts: Case of Nairobi, Kenya

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**Link to Kenyan newspaper article:** [https://www.the-star.co.ke/news/2018/07/06/most-human-waste-untreated-posing-health-dangers-report\\_c1782597](https://www.the-star.co.ke/news/2018/07/06/most-human-waste-untreated-posing-health-dangers-report_c1782597)

### Key learning points & impacts

- Involvement of key stakeholders from the outset has instilled ownership and maximised impact.
- Resulting SFD has raised awareness of the need to focus on improved sanitation in Nairobi's informal settlements.
- Infrastructure-based interventions have been implemented at the faecal sludge discharge point as a result of SFD findings.
- The SFD is informing recommendations in a forthcoming Water and Sanitation Bill for Nairobi City County Government.
- The SFD methodology is proposed as an ongoing monitoring and evaluation tool for Nairobi City County Government and potentially other County Governments.

### The Nairobi SFD process: an example of good practice

Since its inception in 2013 (Peal *et al.*, 2014), over 40 SFD reports have been produced globally following the SFD-PI process, with varying degrees of impact. It is recognised that engaging stakeholders at an early stage of the SFD process results in more reliable data. However, a further benefit of early and extensive engagement with stakeholders throughout the process is an increased level of ownership of the resulting SFD report.

### Background to the Nairobi SFD

In 2016, the African Population and Health Research Centre (APHRC) began a 3-year Gates Foundation funded project to evaluate urban faecal waste management (FWM) in East Africa. Focused on Kenya, Tanzania and Uganda, the project sought to improve and expand implementation and resourcing of national sanitation policies in each country.

During the initial project focus on Kenya, APHRC realised that an SFD report had not been completed for Nairobi City. With part of the project funding allocated to advocacy, the Gates Foundation brought together regionally-funded partners to determine how APHRC could assist in

developing the partners advocacy strategies. The result was a partnership for preparing the Nairobi SFD, including representatives from Nairobi County Government, Nairobi City Water and Sewerage Company, NGOs, CBOs and researchers.

### **The SFD development process**

From the outset, it was recognised that for the SFD to have the maximum impact possible, stakeholders representing every stage of the sanitation chain needed to be involved in the process of developing the SFD. The SFD-partnership also met with the Managing Director of Nairobi City Water and Sewerage Company and the Ministry of Health, to ensure that they understood the reasons for preparing an SFD for the City, as well as encourage their participation as a demonstration of the partnerships' respect for what each organisation could bring to the process.

A preliminary workshop initiated the process, co-convened with Nairobi City County Government and the Ministry of Health, facilitated by APHRC, Sanergy and the University of Leeds. A broad array of stakeholders assembled at this initial workshop, ranging from National and County Government officials, regulatory organisations (WASREB and NEMA), the city utility (NCWSC), prominent NGOs and CBOs working to improve sanitation in Nairobi (including Sanergy, Oxfam and Umande Trust). The involvement of local and national government at this early stage not only afforded legitimacy to the process, but also imposed a degree of obligation on these stakeholders to actively engage in, and cooperate with, the process.

During this initial workshop, participants developed localised SFDs for their district of Nairobi City, to highlight the differing levels of sanitation found across the city and demonstrate the need for a city-wide approach to producing the SFD. The workshop led to preparation of a draft SFD graphic for Nairobi City. This provided the basis of information from which APHRC and Sanergy could conduct research focused on all stages of the various sanitation service chains.

There followed a comprehensive data collection and consultation period, during which time a full SFD report was developed, including an assessment of the delivery of sanitation services across Nairobi City. This process involved the APHRC and Sanergy researchers consulting city residents to obtain their views, as well as gather opinions from manual pit emptiers, vacuum tanker operators and other relevant stakeholders who had not been involved in the initial workshop. The depth and reliability of available published data from government and utility reporting was also enhanced during this time through the process of comprehensive data collection, to ensure the report would be as representative as possible.

Once the draft SFD report was complete, one-on-one meetings were held with all key partners, including the Director of Public Health at the national Ministry of Health. These meetings supported a key aim of the process to advocate for change in the national sanitation agenda, beyond that of Nairobi City County. A validation workshop was convened for the SFD-partnership, to ensure that the resulting SFD was acceptable to all the stakeholders representing the reality of sanitation within Nairobi City. The workshop also reinforced the ongoing stakeholder engagement, to retain a sense of ownership and acceptance of the SFD.

## Initial impacts of the SFD

Following a launch event for the Nairobi SFD, attended by both national and local government and local media organisations, NCWSC identified immediate actions that could be implemented to address certain issues highlighted during the SFD process and in the resulting SFD graphic.

- Dialogue with transporters of faecal waste has initiated a monitoring programme to assess and improve the condition of operating vacuum tankers.
- The discharge point for the vacuum tankers (Figure 1) was revealed during the SFD process as a significant source of faecal contamination, for which a solution could be clearly identified. The gradient of the area where tankers discharge faecal sludge prevents them from emptying fully or safely into the collection tank. To fully empty, vehicles move to a flatter area and simply discharge onto waste ground (Figure 2). The ground at the discharge point is being levelled to ensure tankers can empty completely in a controlled manner in the future.
- NCWSC has started to assess the sewer network for leaks, as a means to reduce the quantity of wastewater that does not reach the treatment plant. The SFD indicates that this accounts for 8% of all faecal waste produced by the city.

These initial steps undertaken by NCWSC are tackling some of the “quick-win” issues that the SFD identified. However, other impacts have been realised as a result of the SFD process.



*Figure 1: Tanker discharge point in Nairobi*



*Figure 2: Ground contamination due to FW*

## Developing impacts of the SFD

By being involved with the SFD process, stakeholders’ level of awareness and understanding of sanitation issues affecting Nairobi City has been raised, especially those affecting informal settlements. The process has cultivated an increased willingness for stakeholders to collaborate, as they recognise how fragmented the responsibility for sanitation is across different government departments and how the broad range of stakeholders can contribute to better manage the sanitation service chains.

Feedback received from all partners involved in the SFD process has been positive. They are finding the SFD report to be a valuable advocacy tool, while the simplicity of the SFD graphic is proving a powerful tool for Nairobi City County Government and Ministry officials to influence

policy makers. The overall status of sanitation across Nairobi City, together with key messages resulting from the SFD process, are easily communicated in this visual form.

The Public Health Department are also finding the SFD graphic a powerful advocacy tool in dealing with the immediate health consequences of inadequate sanitation, such as cholera outbreaks. The SFD graphic shows that 52% of unsafely managed excreta in the city originates from areas relying on onsite sanitation. Using the SFD graphic to illustrate this, a strong case can be made for additional resources to tackle health risks associated with poorly managed onsite sanitation systems.

On the recommendation of APHRC, Nairobi City County Government intends to adopt the SFD as a monitoring and evaluation tool. Annually-updated SFDs will assess the progress made and enable analysis of how successful any sanitation interventions have been.

A draft Water and Sanitation Bill for Nairobi City is being prepared which, once passed, will refer to the SFD. Many of the proposed sanitation recommendations within the Bill have been informed by the Nairobi City SFD process.

Being in the legislative regulations will allow the results of the SFD process to guide the development of sanitation policy of the County, following enactment of the Bill into law.

A Learning Forum, representing all 47 County Governments in Kenya, is scheduled to be convened by APHRC in partnership with the Secretariat of the Council of County Governors of Kenya. As part of this event, the Nairobi City SFD-partnership can assist other Counties to create their own SFD reports. In this way, they will share the knowledge gained from the Nairobi process to support sanitation planning processes in other towns and cities. It is hoped that the SFD approach will be adopted by other County Governments, following the success of the Nairobi City SFD example.

The Nairobi SFD graphic and report identify the main deficiencies and challenges within the sanitation chains operating in the city, which now need to be addressed. In particular, the scale of effort required to improve sanitation in large, densely populated informal settlements has been recognised. The SFD report also provides robust evidence to support requests for additional resources to address specific needs through stages of the sanitation chain. This is notable for transportation of faecal sludge emptied from onsite sanitation systems, which contributes a significant proportion (30%) of unsafely managed excreta across the city.

### **Main challenges identified**

- Sanitation responsibilities are fragmented across many government departments.
- Obtaining stakeholder “buy-in” throughout the whole SFD process requires a commitment of time and resources – but is important to avoid completing the SFD and then trying to “sell” it retrospectively.
- Differing views between stakeholders, such as over the level of sewer coverage, may emerge. They need to be addressed through dialogue.

## Recommendations and learning

- Engage stakeholders from the start and throughout the SFD process to increase ownership of the resulting SFD, particularly by those who have the authority to implement real change.
- Gain commitment and cooperation of local government to assist the process and afford legitimacy to it.
- Develop an open attitude towards new ideas and approaches to sanitation (as demonstrated by the Nairobi City County Government).
- Engage with national government to increase the potential for country-wide rollout of SFDs.

## References

Peal, A. *et al.* (2014) 'Fecal sludge management (FSM): analytical tools for assessing FSM in cities', *Journal of Water Sanitation and Hygiene for Development*. IWA Publishing, 4(3), pp. 371–383.

*The SFD Promotion Initiative collects examples and feedback on ways in which SFDs are used. These experiences are documented as the ‘SFD Thinking’.*

*If you would like to tell us your story, send us a message: [sfd@susana.org](mailto:sfd@susana.org)*

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