

# SFD Promotion Initiative



**Prit Salian / Susanne Bieker**  
(on behalf of) **GIZ**  
Kampala WASH Symposium  
23 June 2016  
Speke Resort, Kampala,  
Uganda



## Overview

- The status quo of urban Sanitation
- Background on SFDs
- The SFD Promotion Initiative
- What is an SFD?
- Some SFDs produced so far
- SFD Portal - [sfd.susana.org](http://sfd.susana.org)
- Upcoming activities (2015 – 2018)



## The status quo of urban Sanitation

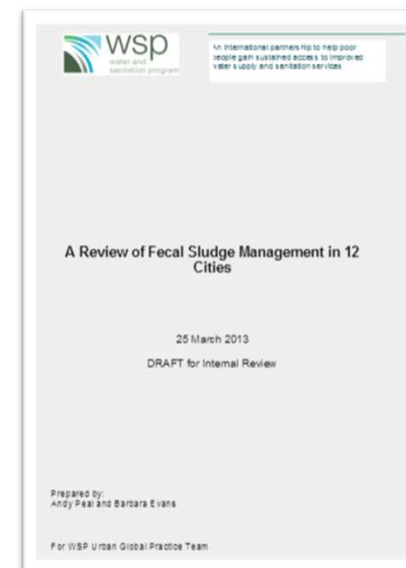
- **Strong focus on sewerage** by International financial institutions and governments, but
- **most urban dwellers with sanitation access use on on-site systems:** <10% of urban Africa has sewer access
- **Virtually all poor people** use informally managed on-site sanitation systems
- **Failure to manage the whole sanitation service chain** results in gross fecal contamination of the environment

# Background on SFDs

- March 2013, World Bank - Water and Sanitation Program (WSP) commissioned Prof. Barbara Evans and Mr. Andy Peal to develop a Review of Fecal Sludge Management in 12 Cities (Unpublished report)

## Some results

- Poor sanitation in informal areas not generally addressed, although often a major city-wide public health hazard
- Policy and spending usually biased towards sewerage – subsidies for the rich. As usual, the main victims are poor people, women and other vulnerable groups

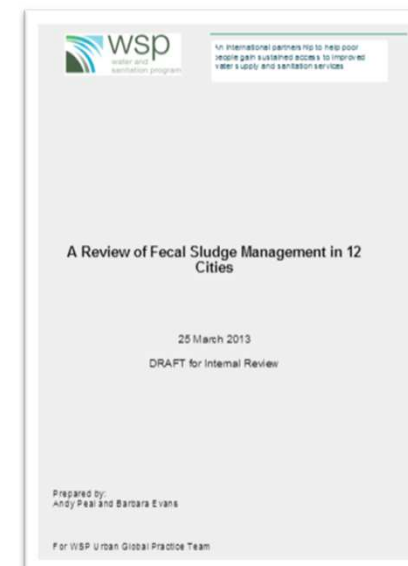


\* A Review of Fecal Sludge Management in 12 Cities. Unpublished report, 2013 World Bank - WSP

\*\* The Missing Link in Sanitation Service Delivery, 2014 World Bank - WSP

# Background on SFDs

- **On-site solutions/** systems often seen as a **temporary solution** and therefore neglected by city authorities and poorly managed
- Data on sanitation not collected city-wide so problems not properly identified and prioritized
- **Faecal sludge management is “invisible” to policymakers**





# The SFD Promotion Initiative

SFD Promotion Initiative

sustainable  
sanitation  
alliance

**giz** Deutsche Gesellschaft  
für Internationale  
Zusammenarbeit (GIZ) GmbH

On behalf of



Federal Ministry  
for Economic Cooperation  
and Development

  
UNIVERSITY OF LEEDS

 **WORLD BANK GROUP**  
Water

 **wsp**  
water and  
sanitation program

**WEDC**

 Loughborough  
University

**CSE**  

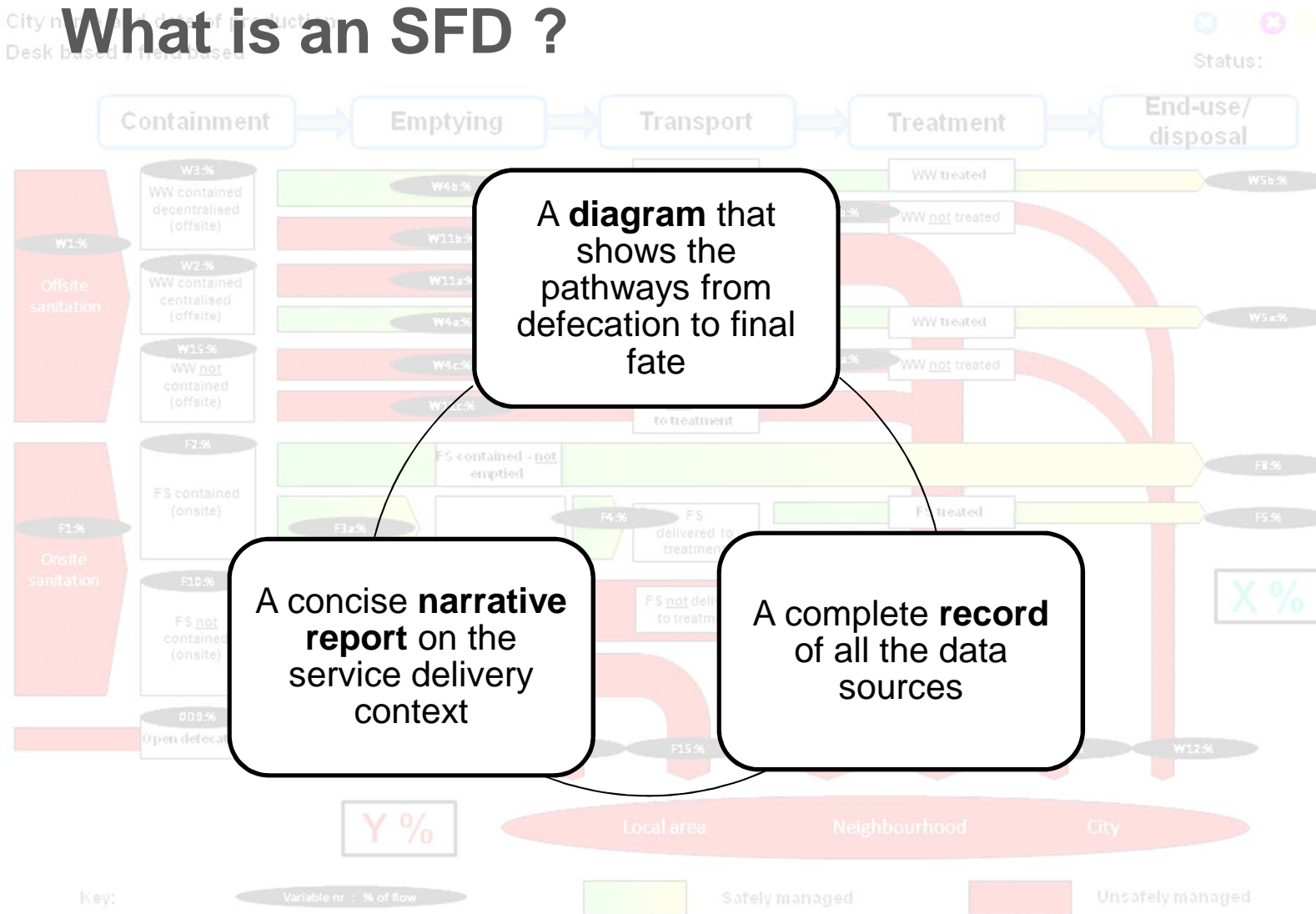

**eawag**  
aquatic research 000

**Sandec**  
Sanitation, Water and  
Solid Waste for Development

**BILL & MELINDA  
GATES foundation**



# What is an SFD ?

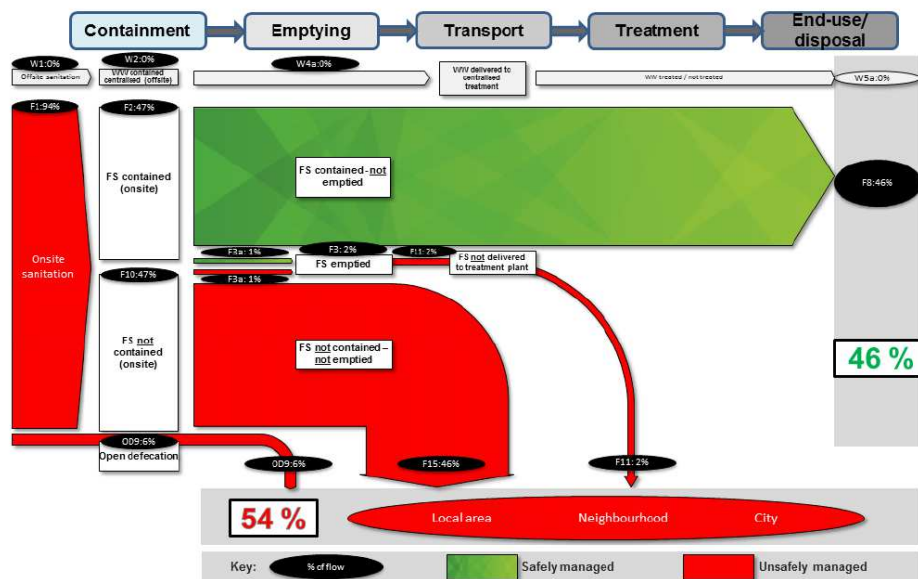


# What is an SFD ?

Yei / South Sudan (25. November 2015)

Field based

Status: REVIEWED







## What is an SFD ?

- An effective **communication and advocacy tool** to engage city stakeholders like political leaders, sanitation experts and civil society organizations in a coordinated dialogue about excreta management.
- A tool for engineers, planners and decision-makers to focus on the most urgent challenges in the sanitation chain
- Based on contributing populations, it gives an indication of where the urban excreta goes
- A representation of public health hazard
- An overview from which to develop sanitation priorities



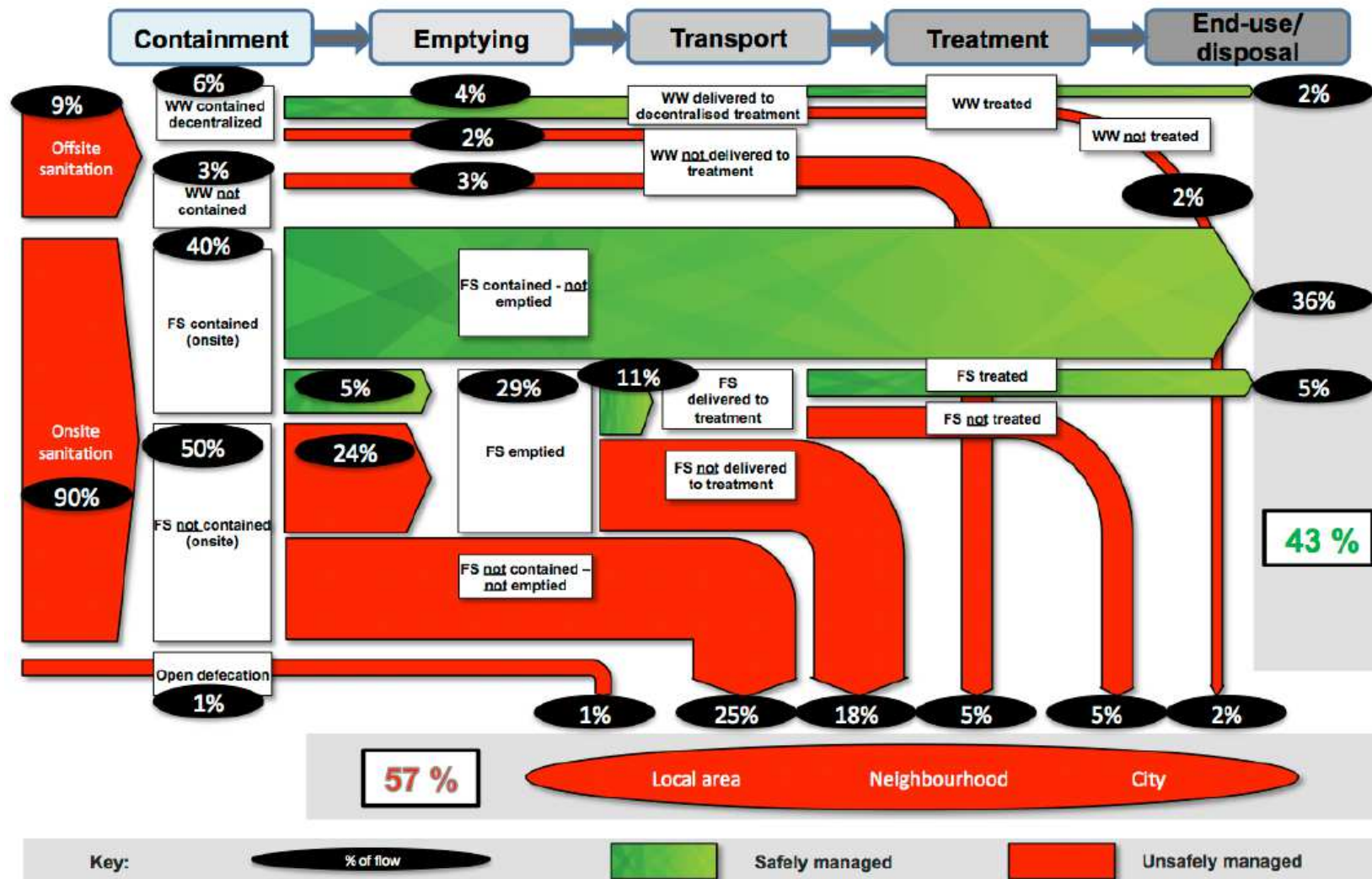
## What is an SFD not ?

- An SFD is not based on volumes/ mass flows
- An SFD is not a representation of public health risk  
( because risk includes hazard and behaviour)
- A SFD is not a precise scientific analytical tool

# Some examples of SFDs produced so far



Dar es Salaam, Tanzania, 03.09.2015  
Field based assessment

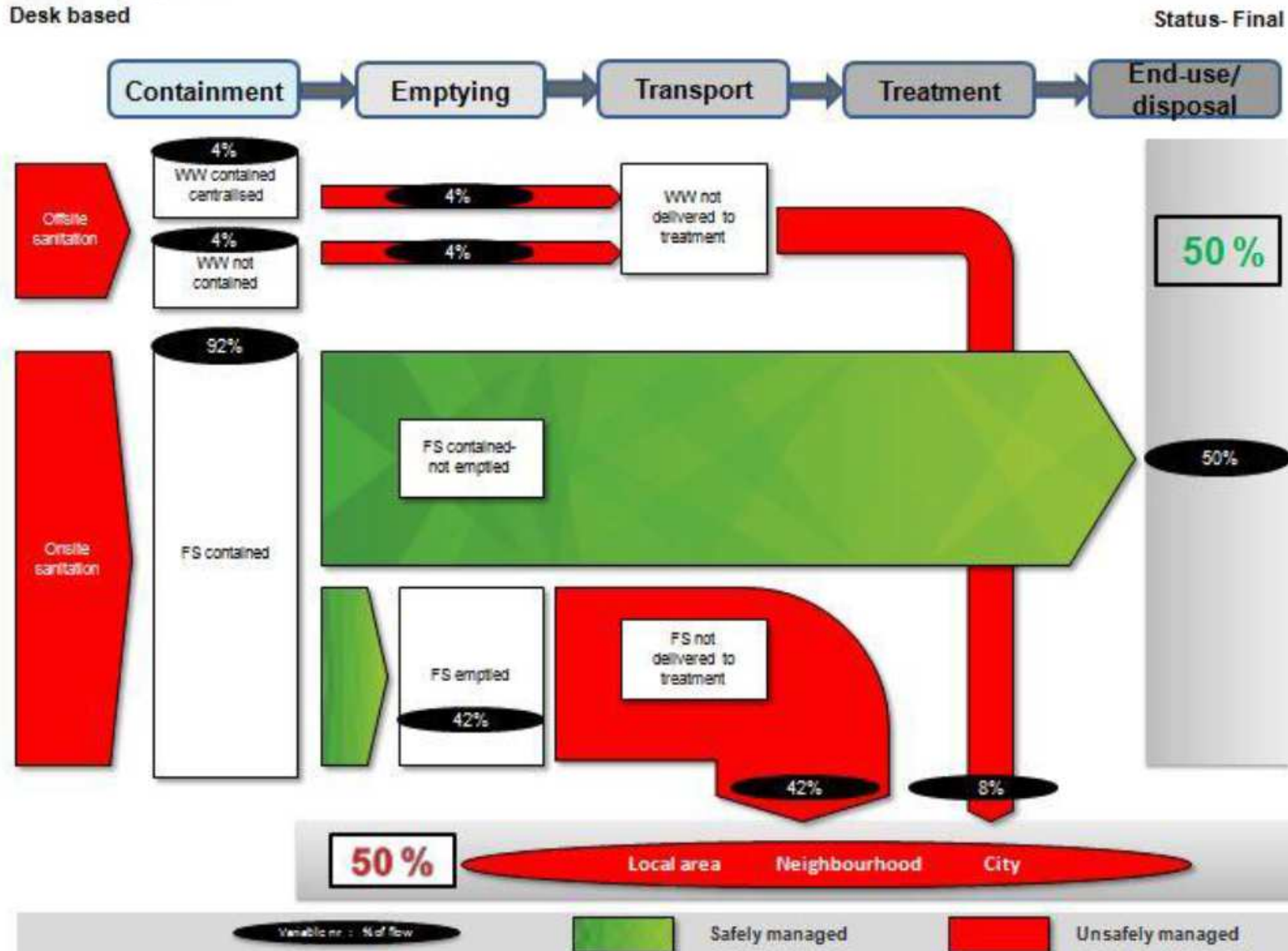


# Some examples of SFDs produced so far



Aizawl- 29 July 2015

Desk based

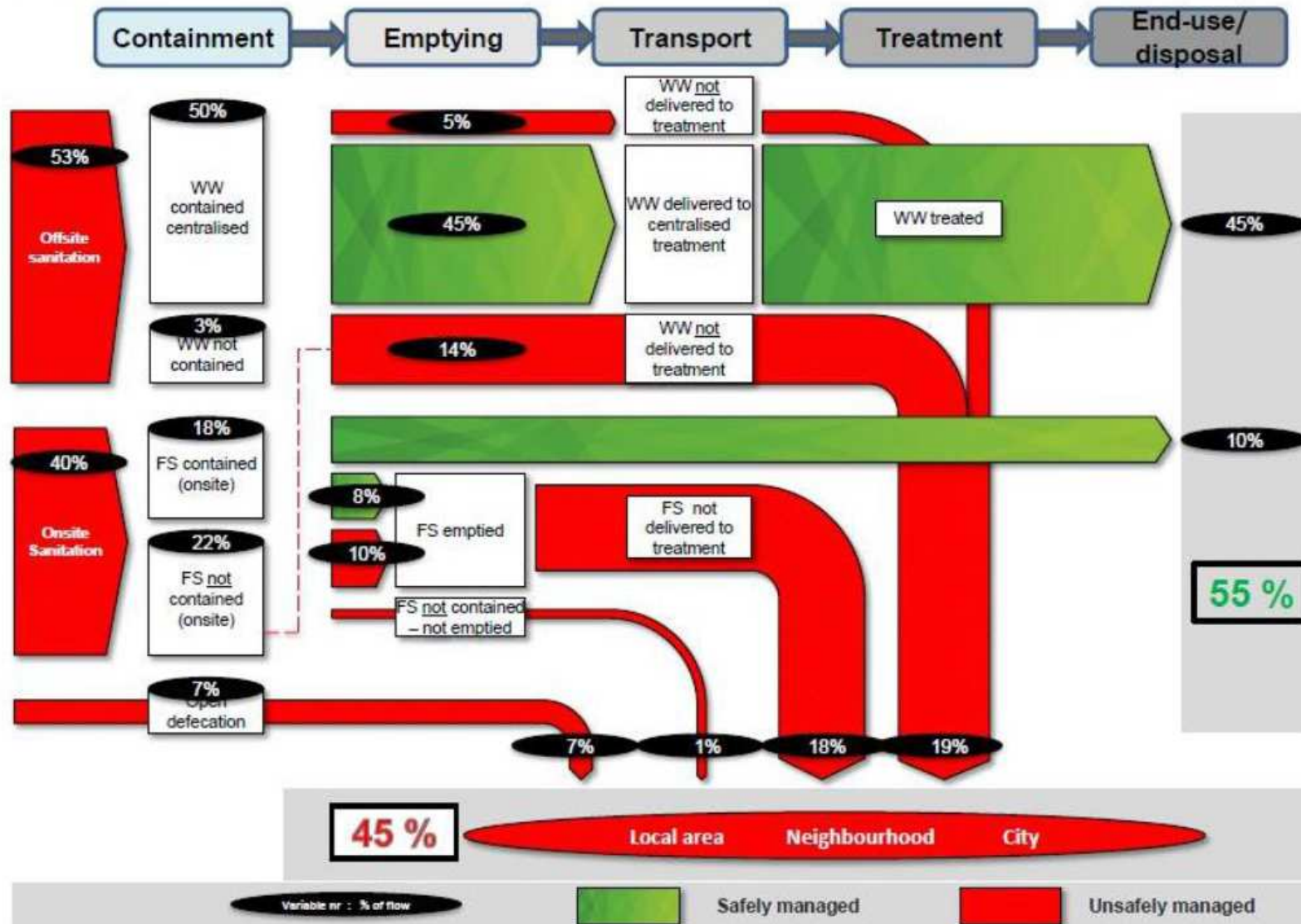


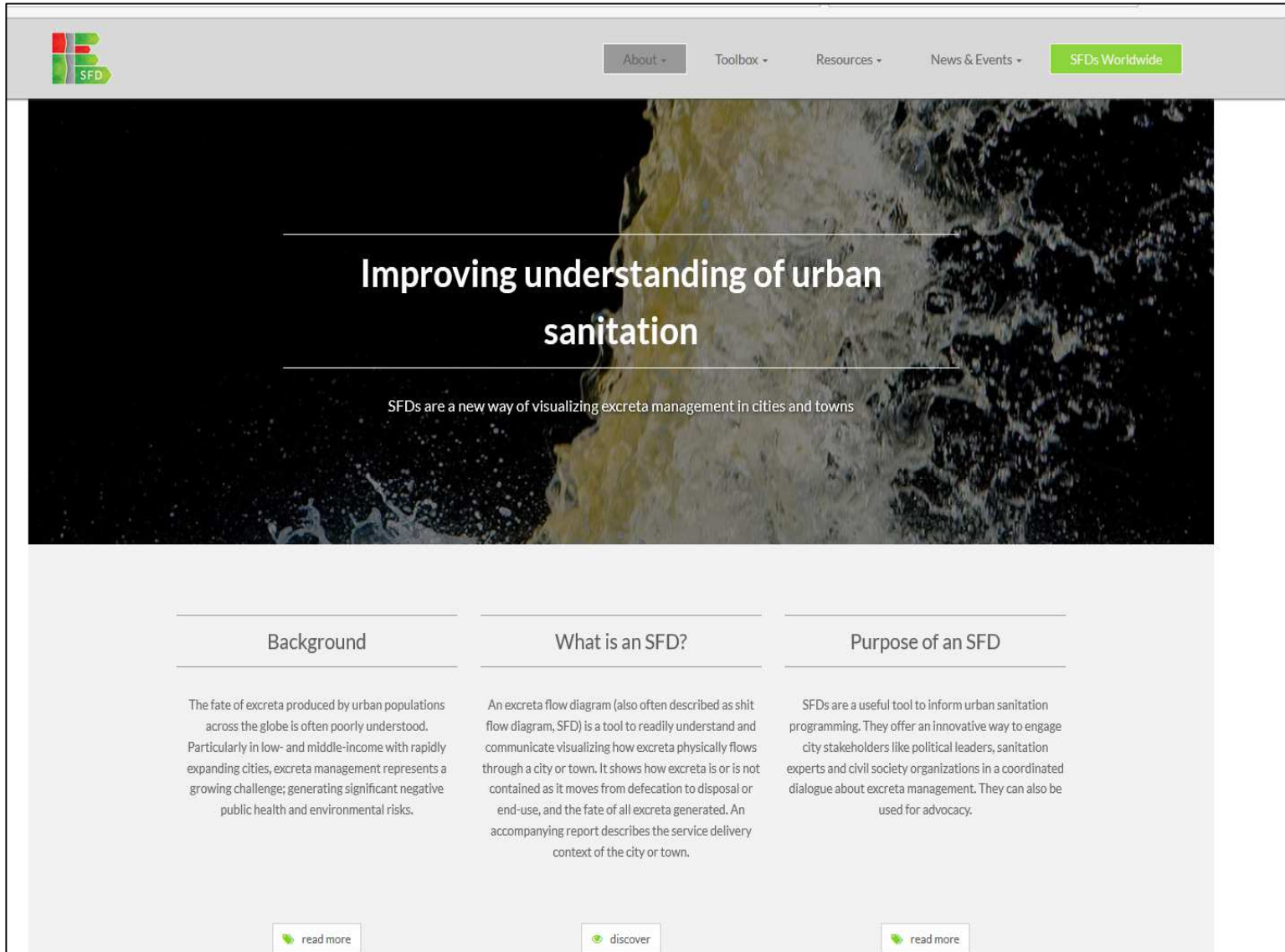
# Some examples of SFDs produced so far



Tumkur- 03 August 2015  
Desk based

Status: Final





The screenshot shows the SFD Portal website. At the top left is the SFD logo. The navigation menu includes 'About', 'Toolbox', 'Resources', 'News & Events', and 'SFDs Worldwide' (highlighted in green). The main content area has a dark background with a white headline: 'Improving understanding of urban sanitation'. Below the headline is a sub-headline: 'SFDs are a new way of visualizing excreta management in cities and towns'. There are three columns of text, each with a title and a 'read more' button.

**About** **Toolbox** **Resources** **News & Events** **SFDs Worldwide**

## Improving understanding of urban sanitation

SFDs are a new way of visualizing excreta management in cities and towns

### Background

The fate of excreta produced by urban populations across the globe is often poorly understood. Particularly in low- and middle-income with rapidly expanding cities, excreta management represents a growing challenge; generating significant negative public health and environmental risks.

[read more](#)

### What is an SFD?

An excreta flow diagram (also often described as shit flow diagram, SFD) is a tool to readily understand and communicate visualizing how excreta physically flows through a city or town. It shows how excreta is or is not contained as it moves from defecation to disposal or end-use, and the fate of all excreta generated. An accompanying report describes the service delivery context of the city or town.

[discover](#)

### Purpose of an SFD

SFDs are a useful tool to inform urban sanitation programming. They offer an innovative way to engage city stakeholders like political leaders, sanitation experts and civil society organizations in a coordinated dialogue about excreta management. They can also be used for advocacy.

[read more](#)

# SFD Portal - sfd.susana.org/



The screenshot shows a web browser window displaying the SFD Portal website. The address bar shows 'sfd.susana.org/toolbox'. The page features a navigation menu with 'About', 'Toolbox', 'Resources', 'News & Events', and 'SFDs Worldwide'. The main content area is titled 'SFD toolbox' and includes a large background image of a narrow alleyway in an urban setting. Below the title, there is a paragraph of text: 'Here you can find out more about the SFD methods and tools. The guidance documents include: the Manual for SFD Production, the SFD calculation tool, the SFD master diagram and the SFD credibility process. These are all currently under development and meanwhile the draft versions are available.' The page is divided into three columns, each with a green circular icon: 'Methodology' (gears), 'How to make an SFD' (wrench), and 'Credibility process' (checkmark). Each column contains a short paragraph of text and a 'read more' button. A large red diagonal watermark 'SFD Toolbox' is overlaid on the left side of the page.

**SFD toolbox**

Here you can find out more about the SFD methods and tools. The guidance documents include: the Manual for SFD Production, the SFD calculation tool, the SFD master diagram and the SFD credibility process. These are all currently under development and meanwhile the draft versions are available.

**SFD Toolbox**

**Methodology**

The SFD Promotion Initiative developed a standardized approach with two different levels of data collection to produce city-wide SFDs: desk-based and field-based data collection. The result is a methodology which helps to produce credible and comprehensible SFDs for cities around the world.

[read more](#)

**How to make an SFD**

Through working with stakeholders and partners in 50 cities and towns around the globe, we are gaining experience in producing SFDs. With this expertise we are generating easy to understand guidance documents, which will then enable you to produce an SFD for your location too. We will upload all the documents needed to make an SFD and its accompanying report in one place here.

[SFD tools](#)

**Credibility process**

The SFD Promotion Initiative is currently developing a review mechanism for SFDs to promote standardization across cities.

[get in contact](#)



Methodology

How to make an SFD



## How to make an SFD

Through working with stakeholders in cities and towns around the globe, we gained experience in producing SFDs. With this expertise we generated draft versions of the guidance documents, which you are now able to use to produce an SFD for your location. These documents are working drafts, produced under the SFD Promotion Initiative and are currently being field tested.

 [Download of Draft Manual for SFD Production from the SuSanA Library](#)

The Draft Manual for SFD Production includes the following components:

- Part A: Methodology for data collection
- Part B: Stakeholder Engagement Document
- Part C: Guidance note for calculation tool
- Part D: Glossary of variables and terms
- Part E: Methodology for Evaluating Quality and Credibility of SFDs

The SFD Toolbox comprises:

- The Manual for SFD Production (Draft)
- The SFD calculation tool (Draft)
- The Stakeholder Tracking Tool (Draft)
- The SFD Master Diagram (Draft)



SFD Promotion Initiative

Manual for SFD Production

Version 1.0  
October 2015



Manual for SFD Production

SFD Calculation Tool

SFD Master Diagram

Stakeholder Tracking Tool





[Part A: Methodology for data collection](#)

[Part B: Stakeholder Engagement Document](#)

[Part C: Guidance note for calculation tool](#)

[Part D: Glossary](#)

[Part E: Methodology for Evaluating Quality and Credibility of SFDs](#)





Data input

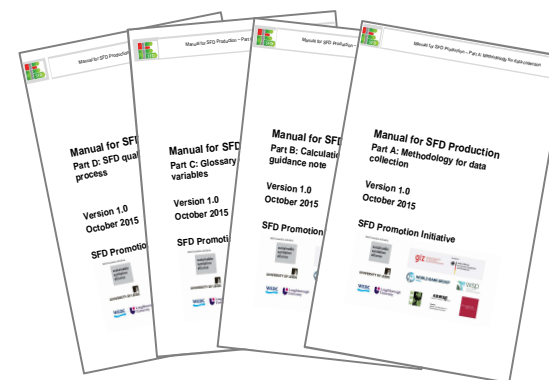
# SFD Calculation Tool

SFD VARIABLES																																																		
CITY:		Proportion of each type of tank which is 50 gal wet effluent, superstrat or ballasted (default is 50%)	SIN		NOTES ON SOURCE, STUDY AREA AND/OR POPULATION ROUNDDINGS:										IMPORTANT NOTE: If it is necessary to edge or estimate percentages from expert opinion it is recommended that the approach used is one that will minimize the maximum error. For instance, where it is known that the fiscal water flow is along two different pathways, but the percentage split is not known, assuming that the flow is split 50/50 will minimize the maximum error.				KEY TO SHADING: WHITE AND HATCHED CELLS ARE UNPROTECTED AND CAN BE POPULOUS. GRAY CELLS ARE PROTECTED, APPROXIMATE CALCULATED VALUES. DARK GRAY CELLS ARE PROTECTED, AND INDICATE THAT VARIABLE IS NOT RELEVANT.																															
COUNTRY:		Proportion of each fully lined tank (or-ded) which is 50 gal wet effluent, superstrat or ballasted (default is 50%)	SIN																																															
POPULATION [M]:		Proportion of all each-lined tanks with impermeable walls and open bottom (level 0) each gal (all types) which is 50 gal wet effluent, superstrat or ballasted (default is 50%)	SIN																																															
DATE PREPARED:																																																		
PREPARED BY:																																																		
					WASTEWATER CONTAMINANT CONTAINMENT										WASTEWATER CONTAMINANT CONTAMINATED					WASTEWATER NOT CONTAMINATED																														
Tab 1 ref	Sanitation containment system description (see PPT document)	Population using this type of system? (2) (M)	Proportion of population using this system (2)	Population using this system with emptying? (7) (M)	Proportion of population using this system with emptying (7)	Variable P1: P1 (range of 0)	Variable P2: P2 (range of 0)	Variable P3: P3 (range of 0)	Variable P4: P4 (range of 0)	Variable P5: P5 (range of 0)	Variable P6: P6 (range of 0)	Variable P7: P7 (range of 0)	Variable P8: P8 (range of 0)	Variable P9: P9 (range of 0)	Variable P10: P10 (range of 0)	Variable P11: P11 (range of 0)	Variable P12: P12 (range of 0)	Variable P13: P13 (range of 0)	Variable P14: P14 (range of 0)	Variable P15: P15 (range of 0)	Variable P16: P16 (range of 0)	Variable P17: P17 (range of 0)	Variable P18: P18 (range of 0)	Variable P19: P19 (range of 0)	Variable P20: P20 (range of 0)	Variable P21: P21 (range of 0)	Variable P22: P22 (range of 0)	Variable P23: P23 (range of 0)	Variable P24: P24 (range of 0)	Variable P25: P25 (range of 0)	Variable P26: P26 (range of 0)	Variable P27: P27 (range of 0)	Variable P28: P28 (range of 0)	Variable P29: P29 (range of 0)	Variable P30: P30 (range of 0)															
																																				Variable P31: P31 (range of 0)	Variable P32: P32 (range of 0)	Variable P33: P33 (range of 0)	Variable P34: P34 (range of 0)	Variable P35: P35 (range of 0)	Variable P36: P36 (range of 0)	Variable P37: P37 (range of 0)	Variable P38: P38 (range of 0)	Variable P39: P39 (range of 0)	Variable P40: P40 (range of 0)					
134-001	Sanitation system description	Reference 1.1	5%																																															
134-002	Sanitation system description	Reference 1.2	5%																																															
134-003	Sanitation system description	Reference 1.3	5%																																															
134-004	Sanitation system description	Reference 1.4	5%																																															
134-005	Sanitation system description	Reference 1.5	5%																																															
134-006	Sanitation system description	Reference 1.6	5%																																															
134-007	Sanitation system description	Reference 1.7	5%																																															
134-008	Sanitation system description	Reference 1.8	5%																																															

Description of terms and variables provided in the accompanying glossary

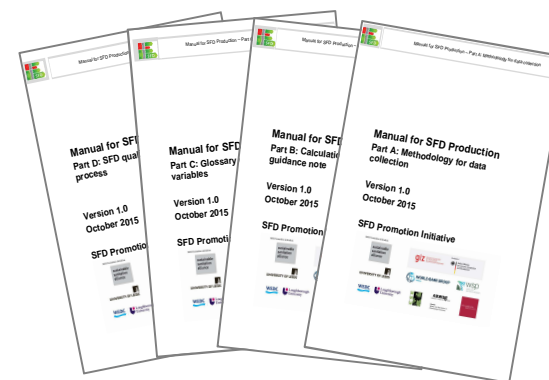
# Service Delivery Context Assessment

- **Policy, legislation and regulation** (i.e. institutional roles, standards)
- **Planning** (i.e. targets, investments)
- **Equity** (i.e. range of affordable, appropriate, safe and adaptable technologies to meet the needs of the urban poor)
- **Outputs** (i.e. quantity, capacity and quality)
- **Expansion** (demand, sector development)
- **Service outcomes** (SFD)



# Service Delivery Context Assessment

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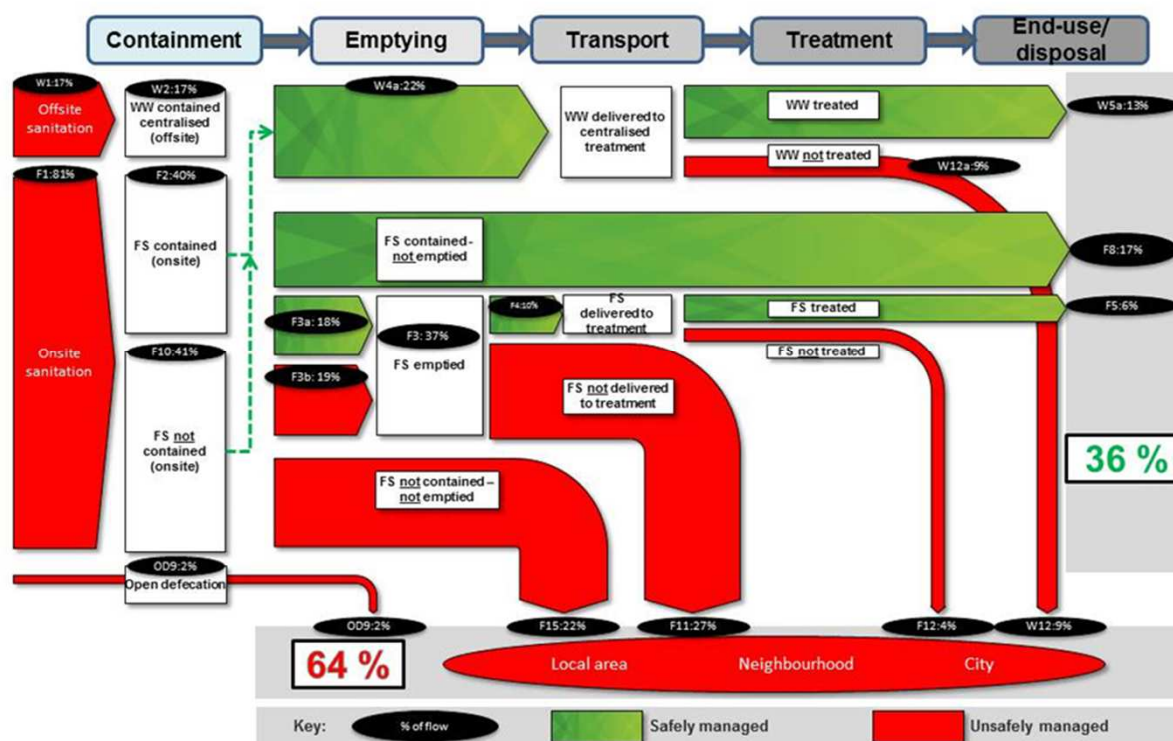
# Quality control and quality assurance

Summarize data by the reference numbers assigned to them in the reporting template						
CONTAINMENT:						
EMPTYING:						
TRANSPORT:						
TREATMENT:						
ENDUSE/DISPOSAL:						
	CONTAINMENT	EMPTYING	TRANSPORT	TREATMENT	ENDUSE/DISPOSAL	
Types of data sources used	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Municipal, utility or private local service provider records
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Interviews with city authorities and local government departments
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Documented studies
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Community representatives (interviews desk- and field-based, FGDs only field-based)
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Service providers (interviews desk- and field-based, FGDs only field-based)
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Observation (only field-based)
Further availability of data sources	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	This is a one-off exercise no further data expected
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Limited amount of new data expected, SFD to be revised
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Substantial amount of new data expected, SFD to be revised
If updated SFD expected, enter date:						
How has current SFD been used (entire service chain)					<input type="radio"/>	SFD has <u>not</u> been shared with local stakeholders
					<input type="radio"/>	SFD has been shared with local stakeholders but no follow up action agreed
					<input type="radio"/>	SFD has been shared and follow up actions have been agreed
					<input type="radio"/>	SFD has been shared and follow up actions have been agreed and initiated

# Moshi, Tanzania

Moshi / Tanzania (23. November 2015)  
Desk based

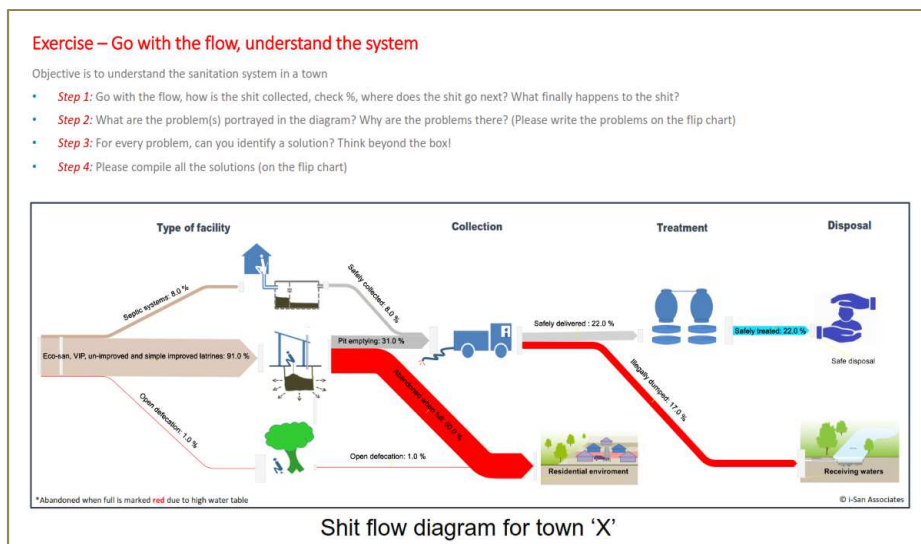
Status: DRAFT



# Town planning, GIZ Uganda

## Reform of the Urban Water and Sanitation Sector (RUWASS)

- **Used in 6 towns as a platform for involvement of a wider group of stakeholders (technical and non-technical)**





## Upcoming activities (2016 – 2018)

- **Refinement of methodology, tools and templates**
  - Data to graphic tool online available
  - Helpdesk – online assistance available
- **Development of guidance documents** and interactive **training** package, including workshops
  - Workshops like today on “What are SFDs?”
  - Workshops for producing SFDs
- **Provide support** to the independent production of SFDs
- Receive and **quality control** SFDs for posting on website (future review of SFDs)
  - Users / producers of SFDs of today to become the reviewers of tomorrow





## Elsewhere...

- **Zambian National Urban and Peri-Urban Sanitation Strategy (2015-2030), Ministry of Local Government and Housing (MLGH)**
- **Urban Sanitation Implementation Manual, Government of Uganda - Ministry of Water and Environment:**
- **Huge potential in India**
  - Used by GIZ Sanitation Program in the trainings for 30 cities
  - Widely used by CSE (especially in the Ganges area)
  - Potential to be used in the “City as the unit of change” attempt undertaken in Tamil Nadu
  - and lately...



## India ...

**You always need hard work and a good timing in order to get successful...**

As SFD are funded by the Bill and Melinda Gates Foundation it was great seeing Bill Gates visiting India and using the SFD of his visiting city to address his concerns about FSM in India.

This had, as you can assume, a lot of echo in the news and therefore a wider recognition of SFDs.

**Additionally, you always need good partners.**

CSE has achieved to deliver the SFDs as the cover story of a journal to all Indian members of the government...



Please visit the web-portal:  
<http://sfd.susana.org>

For more information, please contact:  
[Cecilia.Rodrigues@giz.de](mailto:Cecilia.Rodrigues@giz.de)  
[prit.salian@i-san.co.uk](mailto:prit.salian@i-san.co.uk)

SFD Promotion Initiative

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