

What is an SFD?

एस एफ डी क्या है ?



**Online Training 'Offsite and Onsite Management of
Sewage for Citywide Sanitation,
13-14 January 2021**

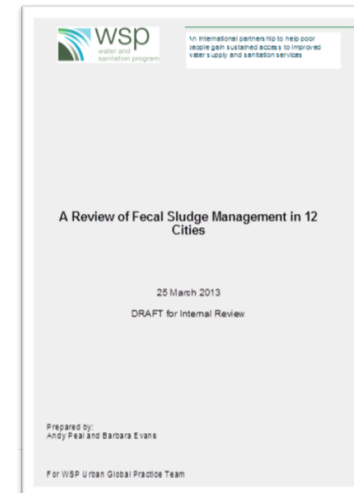


The status quo (यथा स्थिति)

- **Strong focus on sewerage** by IFIs and governments, but (सीवरेज सरकार का केंद्र बिंदु है)
- **Most urban dwellers with sanitation access use on-site systems:** <30% of urban India has sewer access (शेहरो में मुख्या रूप से ऑनसाइट सैनिटेशन सिस्टम है)
- **On-site systems** are often seen as a temporary solution and therefore neglected by city authorities and poorly managed (ऑनसाइट सैनिटेशन सिस्टम को अस्थायी उपाय माना जाता है)
- **Data on sanitation not collected city-wide** so problems not properly identified and prioritized (पुरे शहर का सैनिटेशन डाटा कलेक्ट नहीं किया जाता है, जिससे समस्या का पता लगे)
- **Failure to manage the whole sanitation service chain** (सैनिटेशन सर्विस चैन का असफल प्रबंध)

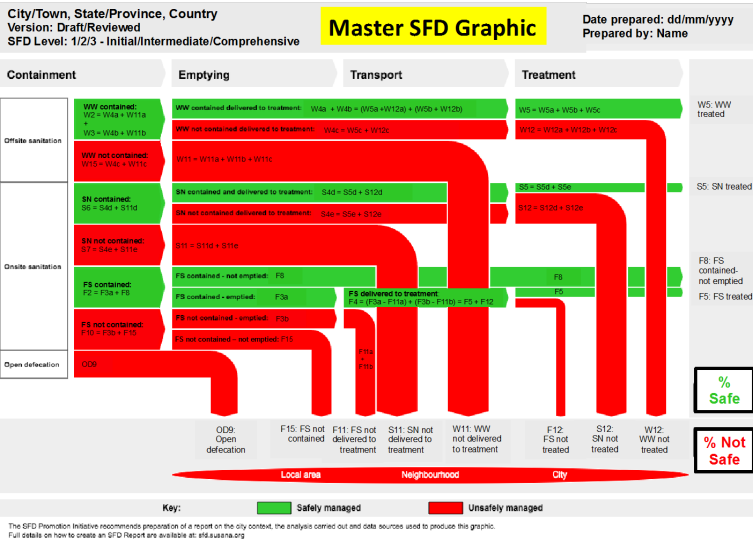
* A Review of Fecal Sludge Management in 12 Cities. Unpublished report, 2013 World Bank - WSP

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



Overview

- What is an SFD? (एस एफ डी क्या है ?)
- Elements of a SFD (एस एफ डी के मूल तत्व)
- How to read an SFD (एस एफ डी कैसे पढ़ें)
- How to prepare an SFD
- Practical applications of SFDs (एस एफ डी की उपयोगिता)



What is a SFD?

(एस एफ डी क्या है ?)

A **diagram** that shows the pathways from defecation to final fate

मलत्याग का अंतिम मार्ग तक का रेखा चित्र

A concise **narrative report** on the service delivery context

A complete **record** of all the data sources

सैनिटेशन चैन सर्विस डिलीवरी की संक्षिप्त रिपोर्ट

डाटा रिसोर्सेज का पूर्ण रिकॉर्ड



What is an SFD

- An effective communications and advocacy tool to engage city stakeholders like political leaders, sanitation experts and civil society organizations in a coordinated dialogue about excreta management. (एस एफ डी सभी हितधारकों को संगठन करने वाला एक प्रभावी संचार एवं पक्षपोषण साधन है)
- A tool for engineers, planners and decision-makers to inform urban sanitation programming. (एस एफ डी इंजीनियर्स, प्लानर्स और निर्णयकर्ताओं के लिए शहरी सैनिटेशन प्रोग्रामिंग बताने का साधन है)
- Based on contributing populations, it gives an indication of where their excreta goes (जनसंख्या संकेत देती है शहर का मल किधर जा रहा है)
- A representation of public health hazard (एस एफ डी सार्वजनिक स्वास्थ्य के जोखिम का प्रतिनिधित्व करता है)
- An overview from which to develop sanitation priorities

- ## Practical applications: (एस एफ डी की उपयोगिता)

Advocacy at City, State and National level



INDIA'S 1ST FAECAL SLUDGE MANAGEMENT PROJECT FUNDED BY NATIONAL MISSION FOR CLEAN GANGA



PROPOSED 10 KLD PILOT FAECAL SLUDGE AND SEPTAGE TREATMENT PLANT - CHUNAR

OVERVIEW

- National Mission for Clean Ganga (NMCG) aims to ensure effective abatement of pollution and rejuvenation of the river Ganga by exploring and promoting economic and nature based treatment systems to manage faecal sludge and septage in small and medium towns in Ganga basin.
- On an annual basis, the bank of the Ganga has been selected as the final destination for the sludge to get dedicated Faecal Sludge and Septage treatment Plant of 10 KLD capacity.
- Centre for Science and Environment (CSE), as a partner organization of NMCG is providing technical support to the town of Chunar for improving sanitation in the city by implementing Faecal Sludge and Septage Management.
- CSE has set up a Technical Support Unit (TSU) in Chunar to support faecal and household city level agencies in planning, executing, operating, maintaining and installing faecal sludge management and executing Faecal Sludge and Septage Management (FSSM) practices in cities across the town of Chunar.
- CSE is further building capacities of city officials, doosan makers and other stakeholders involved in the implementation of any sanitation programme. This would include conducting field visits to verify for officials to explore good management practices.

Swachh Bharat Mission - Urban

Advisory on ON-SITE AND OFF-SITE SEWAGE MANAGEMENT PRACTICES

Control Public Health and Environmental Engineering Organisation (CPHEO)

Ministry of Housing and Urban Affairs, Government of India

www.swachhbharatmission.gov.in | www.cphewo.gov.in

1. The layout of the plant should be designed to ensure that the effluent is discharged into the river Ganga at a point where it is not visible to the public.

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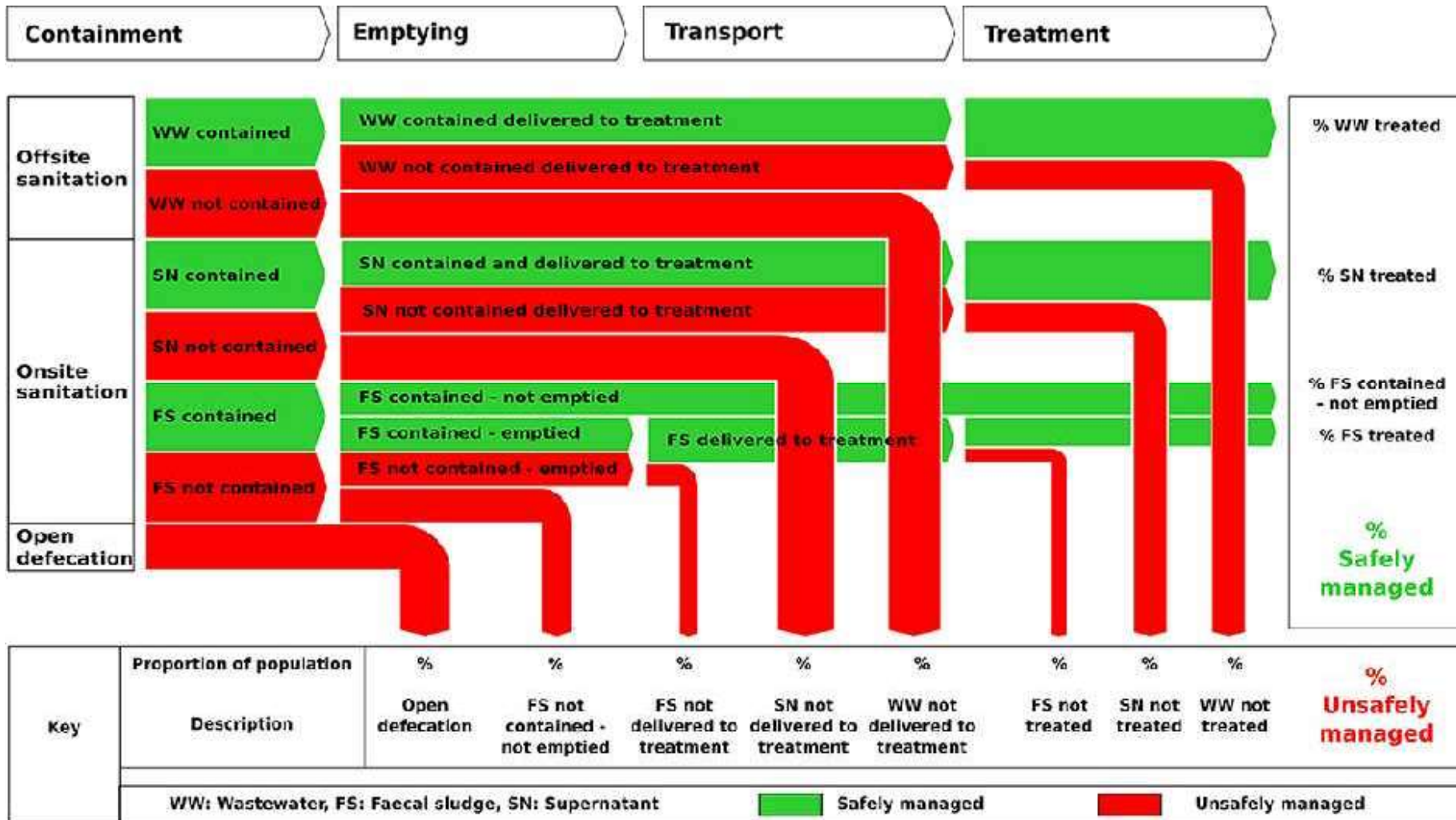
Component of SFD Report (एस एफ डी के घटक)

Aspects to Assess	Objective	Output
Service Delivery Context (सर्विस डिलीवरी संदर्भ)	To identify the status of sanitation service delivery within the urban area (the enabling environment) (शहरों के सैनिटेशन सर्विस डिलीवरी की पहचान करना)	Narrative sections of the SFD Report
Management of excreta through the sanitation service chain (मल प्रबंध सैनिटेशन सर्विस चैन के द्वारा)	To identify the proportions of excreta that are safely or unsafely managed through the sanitation service chain (सुरक्षित एवं असुरक्षित मल निकासी की पहचान करना)	SFD Graphic



How to Read SFD..? (एस एफ डी कैसे पढ़ें)

Master SFD



Cuttack, India– 28 July 2015
Version: Reviewed
SFD Level: 2

Name of City, version
and level of SFD

Date prepared: 28 July 2015
Prepared by: CSE

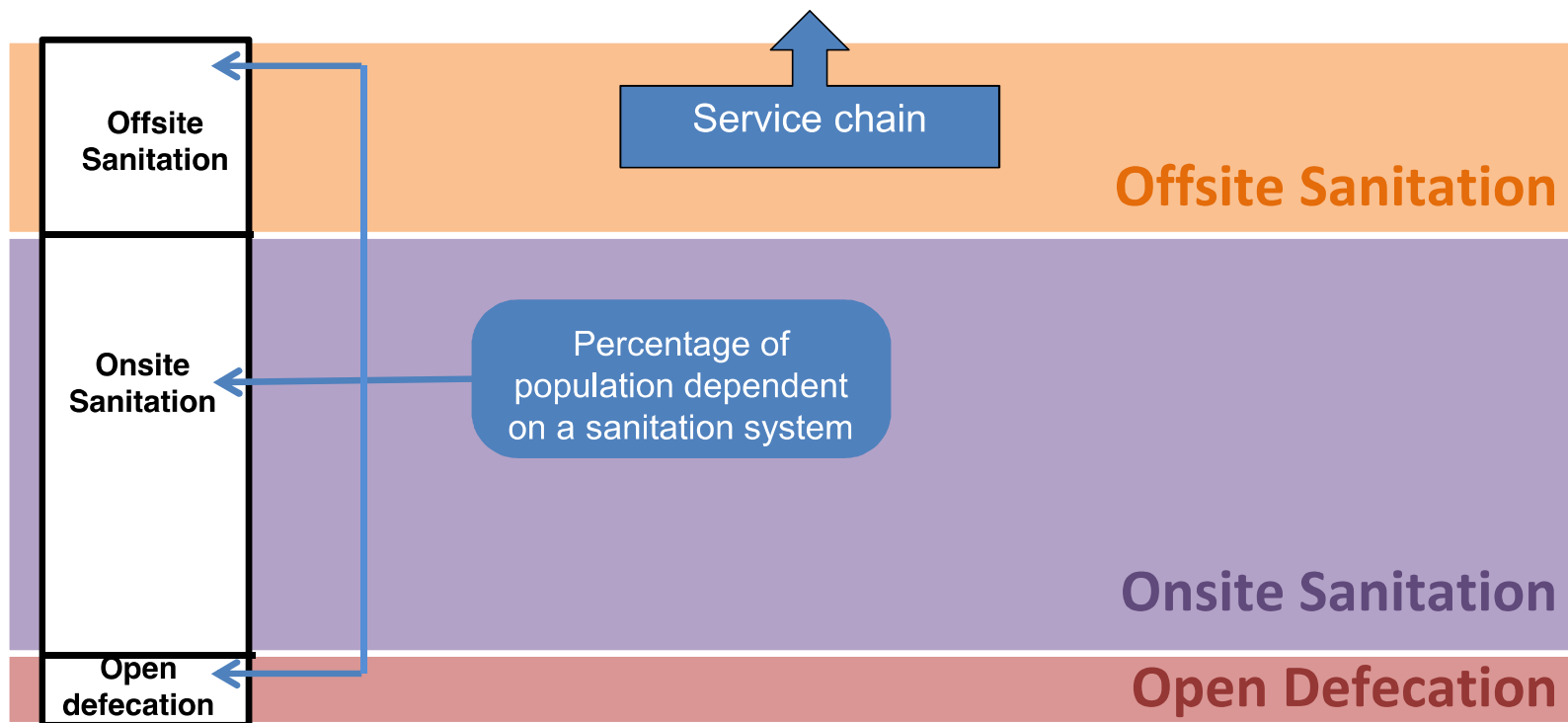


Containment

Emptying

Transport

Treatment



Local area

Neighbourhood

City

Key:

Variable nr : % of flow



Safely managed



Unsafely managed

Cuttack, India– 28 July 2015
Version: Reviewed
SFD Level: 2

Date on which SFD was
prepared, and by whom

Date prepared: 28 July 2015
Prepared by: CSE



Containment

Emptying

Transport

Treatment

Offsite
Sanitation

Onsite
Sanitation

Open
defecation

Red or Green: Whether the arrows would be red or green is dependent on whether the system at that stage is contained or not.

Contained: Sanitation Technology and/or system which ensures safe level of protection from Excreta i.e. pathogen transmission to the user or general public is limited.

Not Contained: Sanitation technology and/or system which does not ensure safe level of protection from Excreta. i.e. pathogen transmission to the user or general public is likely.

WW: Waste Water
FS: Faecal Sludge
SN: Supernatant

Local area

Neighbourhood

City

Key:

Variable nr : % of flow



Safely managed



Unsafely managed

How to prepare a Shit Flow Diagram (SFD)?



Indian SFD Story SO far...

(इंडियन एसएफडी की अबतक की कहानी)

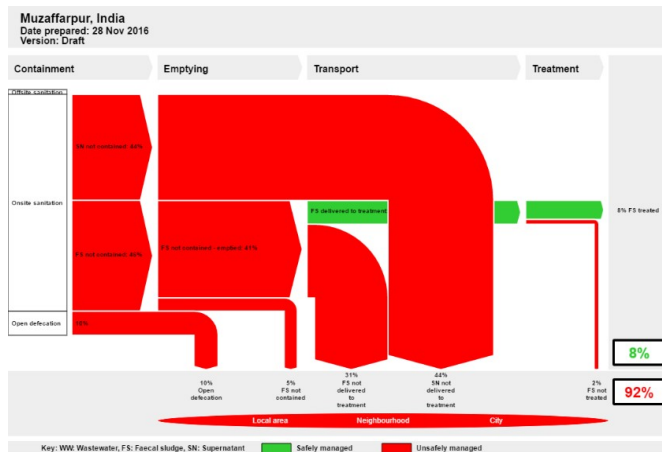
- Tested the methodology of data collection (डाटा कलेक्ट करने की कार्यप्रणाली का परीक्षण)
- More than 500 SFDs (different versions) developed in India, by various agents (भारत में 500 से अधिक एसएफडी विकसित किये गए विभिन्न एजेंट्स द्वारा)
- CSE developed more than 100 SFDs (सीएसई द्वारा 100 से अधिक एसएफडी विकसित किये गए)
- Used as an advocacy tool to sensitize the decision makers (निर्णयकर्ता के लिए पक्षपोषण करने वाला साधन)
- Done baseline study for developing City Sanitation Plans in Ganga basin (represents almost 40% Indian population) (गंगा बेसिन के शहरों की बेसलाइन स्टडी की गयी शहरव्यापी स्वच्छता योजना विकसित करने के लिए)
- Did analysis of sanitation in Urban Uttar Pradesh (most populous state in India) using SFDs of 66 major cities (शहरी उत्तर प्रदेश सैनिटेशन सैनिटेशन का विश्लेषण किया गया)
- Done baseline study of Hindon river basin through SFDs to decide on the relevant projects (हिंडन रिवर बेसिन की एसएफडी द्वारा बेसलाइन स्टडी की गयी)
- Used SFDs to monitor the progress of cities (एसएफडी द्वारा शहरों की प्रगति की निगरानी)

City Sanitation Plan in Ganga Basin Cities, CSE

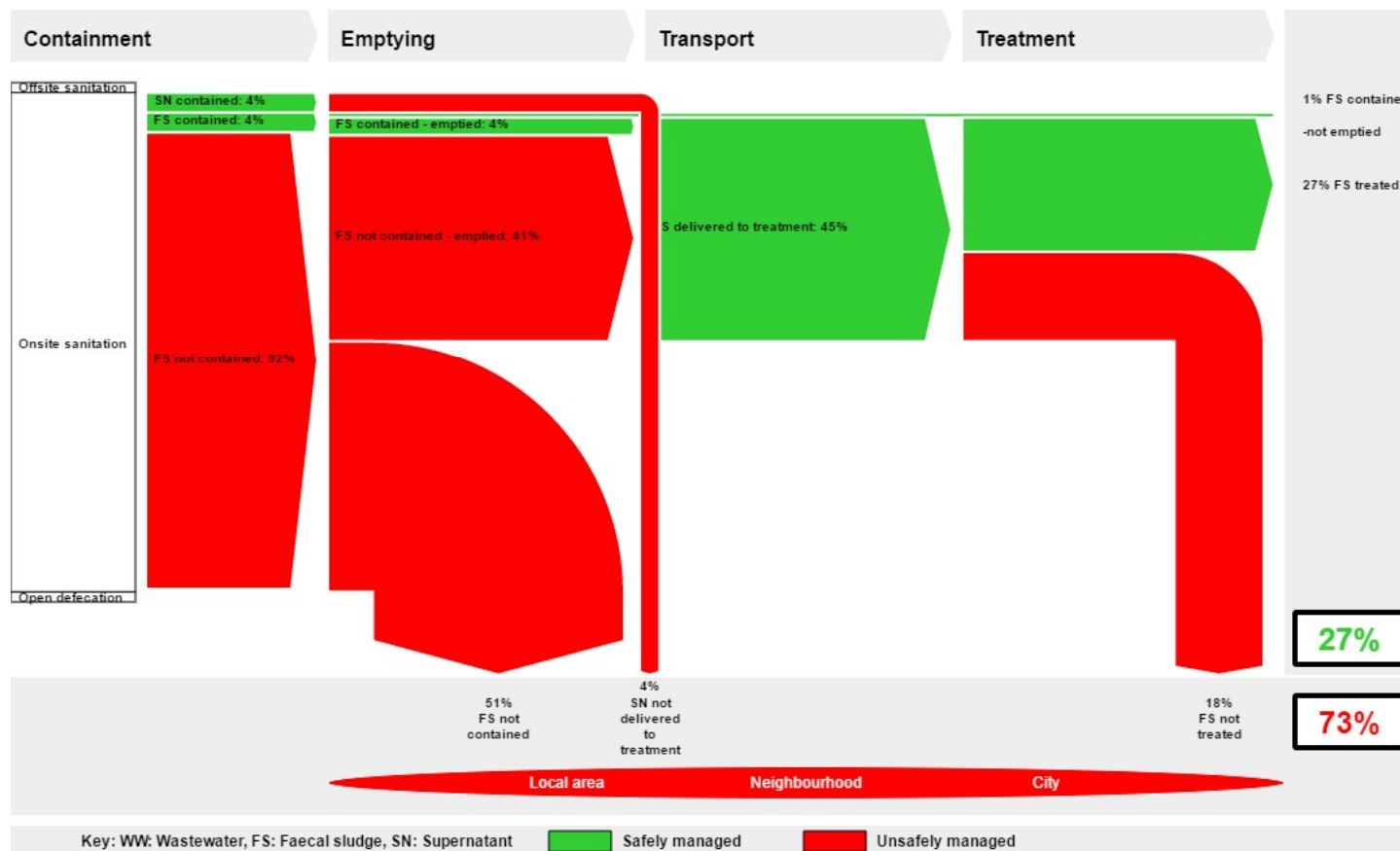
गंगा बेसिन शहरों में शहरव्यापी स्वच्छता योजना, सीएसई

CSE is doing capacity building of ULBs for developing CSPs of ten small and medium cities in Ganga Basin. CSE in collaboration with the ULBs developed SFDs at the very initial stage of development of CSPs. SFDs are also presented in the CSTF meetings.

सीएसई द्वारा गंगा बेसिन के दस छोटे और माध्यमिक शहरों की शहरव्यापी स्वच्छता योजना के लिए शमता निर्माण किया जा रहा है, सीएसई ने यूएलबी के साथ मिलकर शहरों के एसअफडी तैयार किये हैं शहरव्यापी स्वच्छता योजना के आरम्भिक स्टेज में

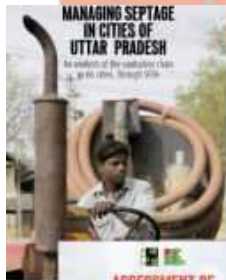


Bansberia, India
Date prepared: 02 Dec 2016
Version: Draft



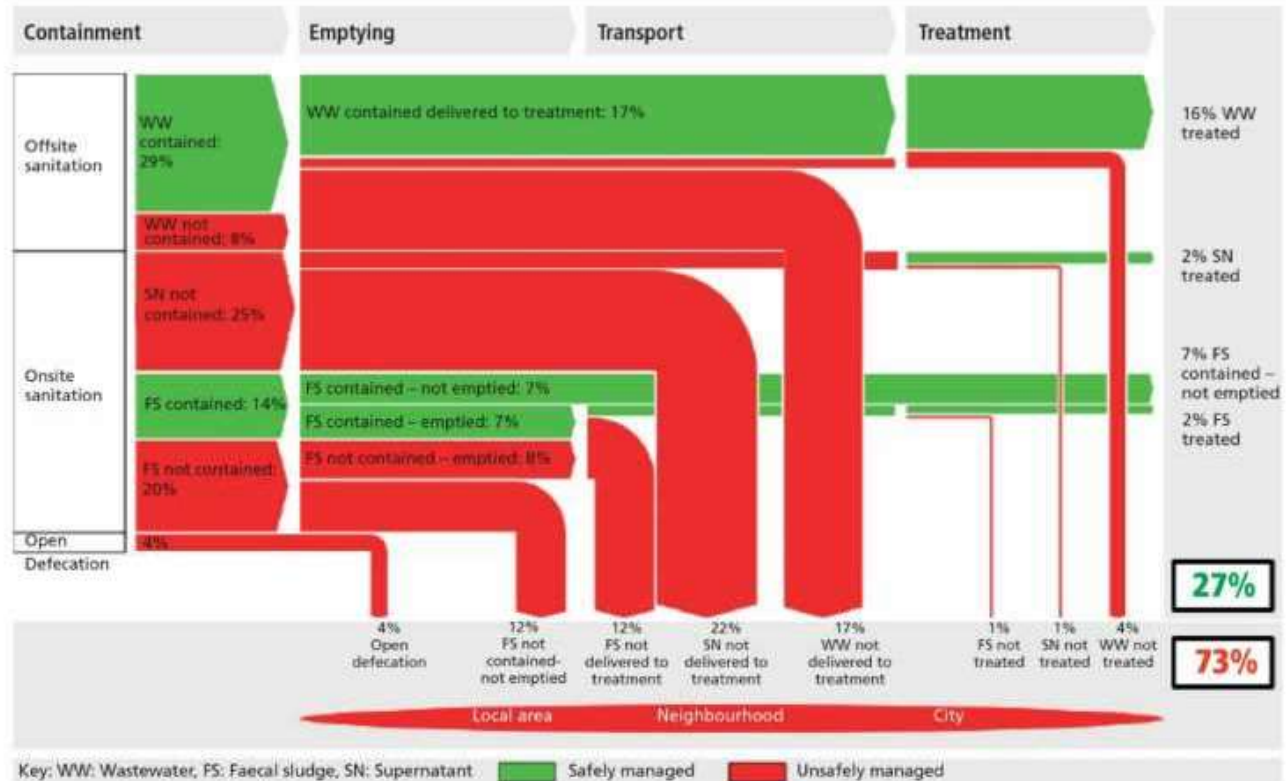
The SFD Promotion Initiative recommends preparation of a report on the city context, the analysis carried out and data sources used to produce this graphic. Full details on how to create an SFD Report are available at: sfd.susana.org

SFD of Urban Uttar Pradesh



Uttar Pradesh (Urban), India SFD Level: 2 - Intermediate SFD

Date prepared: 23 December 2018
Prepared by: CSE



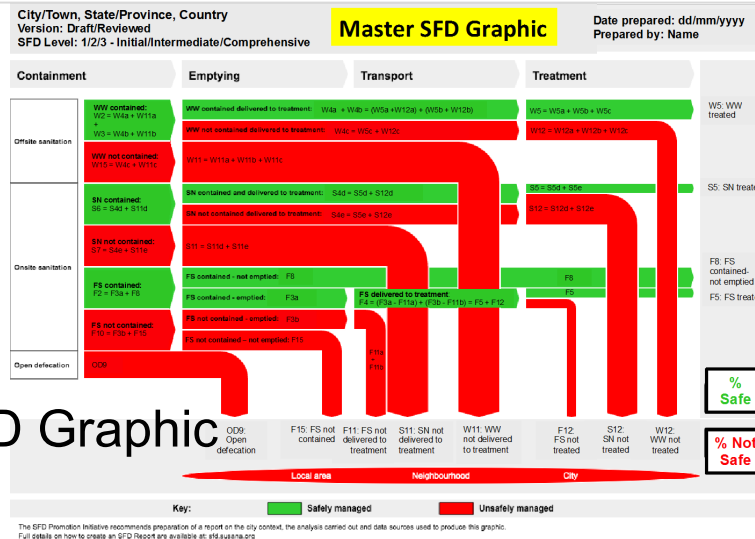
Note: This SFD is done based on study of 66 towns and cities, representing 60% of urban population in UP
To know more about SFDs, visit <https://sfd.susana.org>

CSE's analysis reports released by PS UD at State Workshop & by the Secretary MoHUA and DG NMCG at SFD Week

Elements of a SFD



SFD Graphic



SFD Report



The SFD helpdesk

Juergen Eichholz
working on your SFDs

Ask a Question

2 SFDs in preparation

1 Sent to review

1 Review

2 Comments

3 Approved

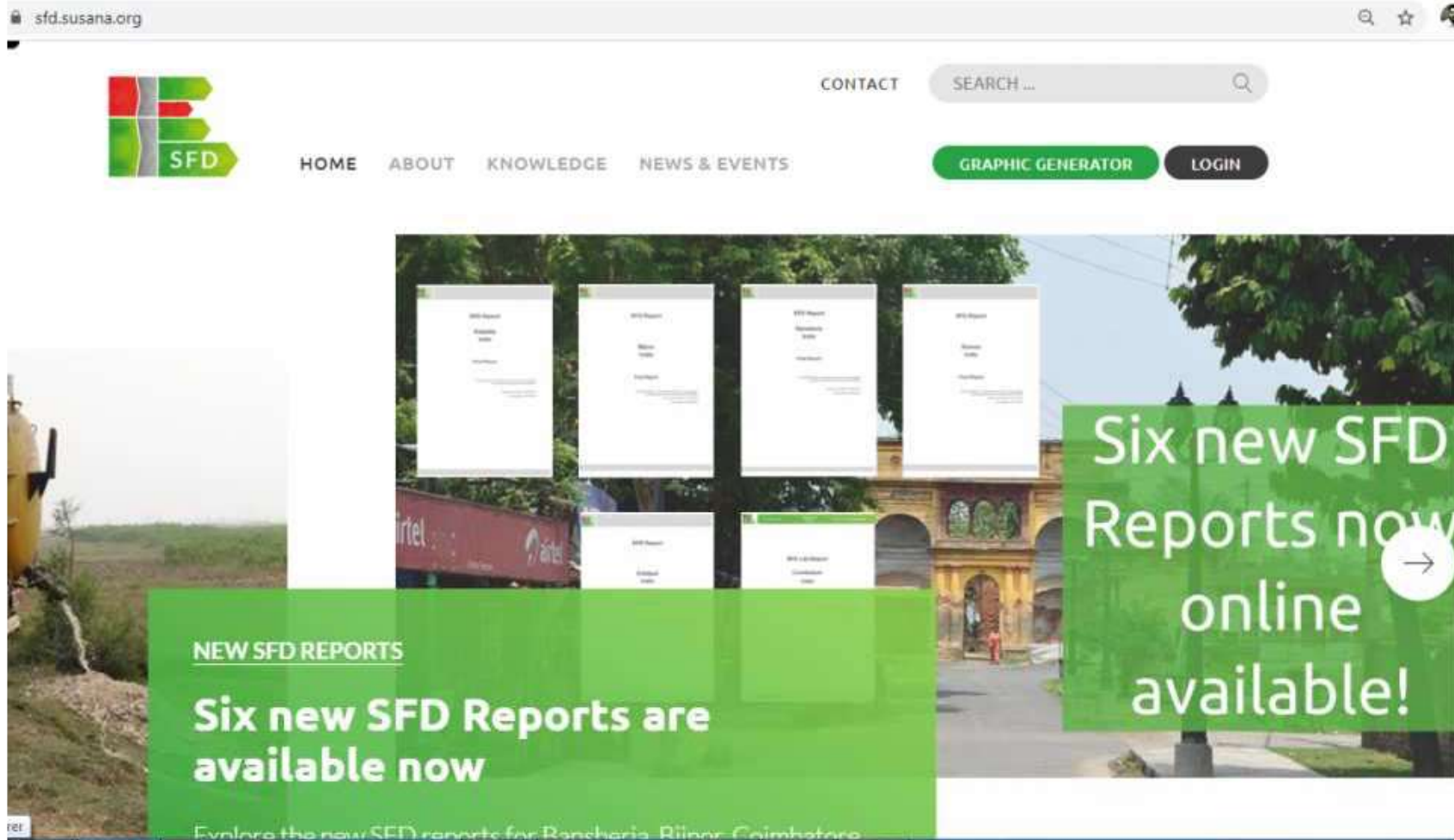
0 Rejected

BER	Berlin Germany	2016-07-05 10:49:05	
NEW	New York United States	2016-06-23 15:43:30	

prepare a new SFD

Kumasi ☒

sfd.susana.org



SFDs worldwide



Region	Reviewed SFD	Draft version available	Under preparation
	1	0	0
Asia & Pacific	78	4	2
North America	4	0	0
Latin America & Caribbean	5	2	3
Sub-Saharan Africa	13	0	11
Middle East & Northern Africa	17	3	5
Total	118	9	21

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SFD Promotion Initiative – Consortium Partners

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



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Solid Waste for Development

BILL & MELINDA
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