



Centre for Science  
and Environment

## Promoting excreta (sewage and septage) flow analysis to inform urban sanitation programming at a city-wide scale

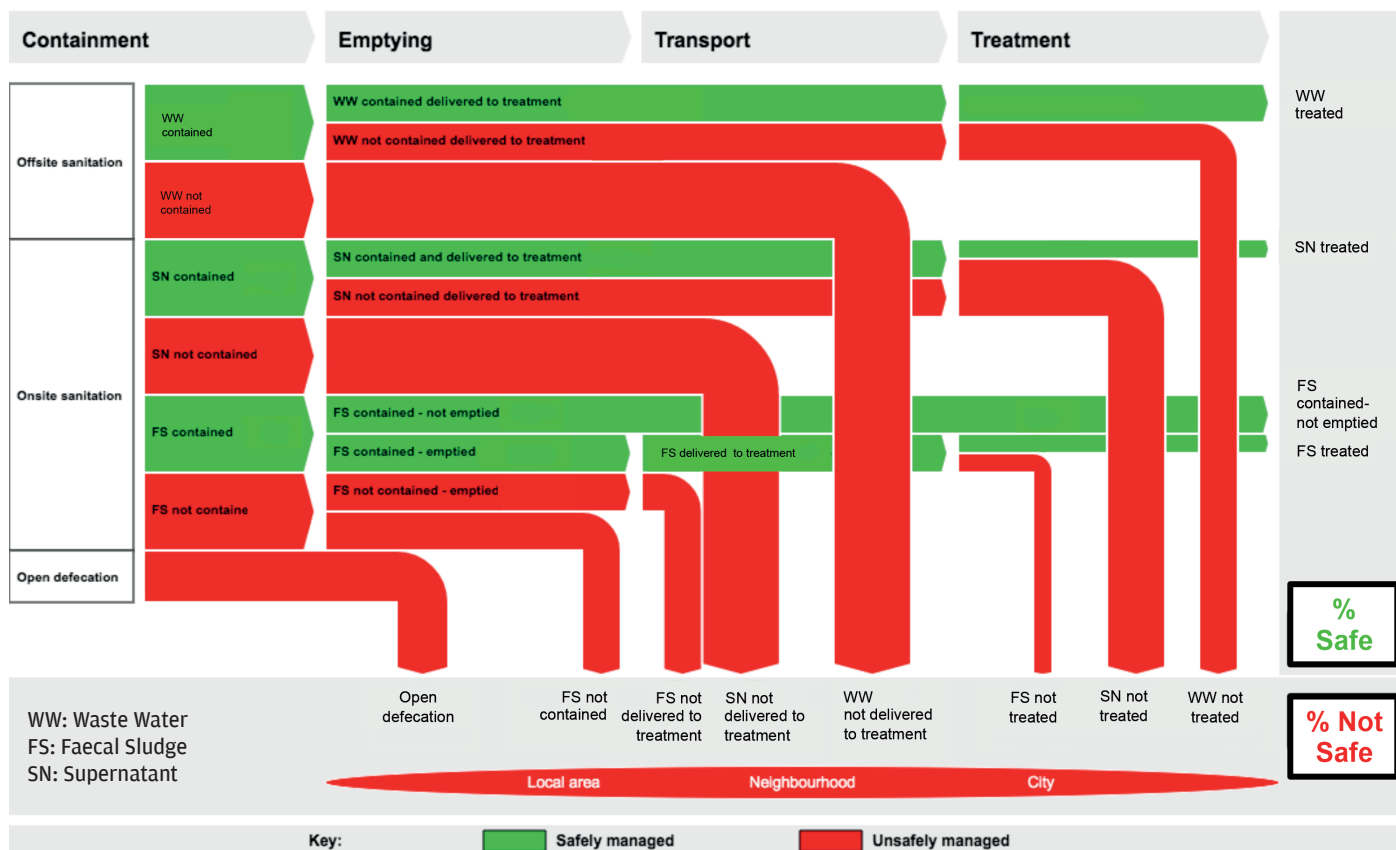


SFD- Shit Flow Diagram

City name and date of production

Desk based / Field based

### SFD- Shit Flow Diagram



### 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 flow through a city or town. It shows how excreta are 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.

#### It is

- A tool for engineers, planners and decision-makers
- Based on contributing populations and an indication of where their excreta (septage or sewage) goes
- A representation of public health hazard
- An effective communications and advocacy tool
- An overview from which to develop sanitation priorities

#### It is NOT

- Based on actual volumes/mass – these are determined by other related factors
- A representation of public health risk (risk = hazard x behavior)
- A precise scientific analytical tool



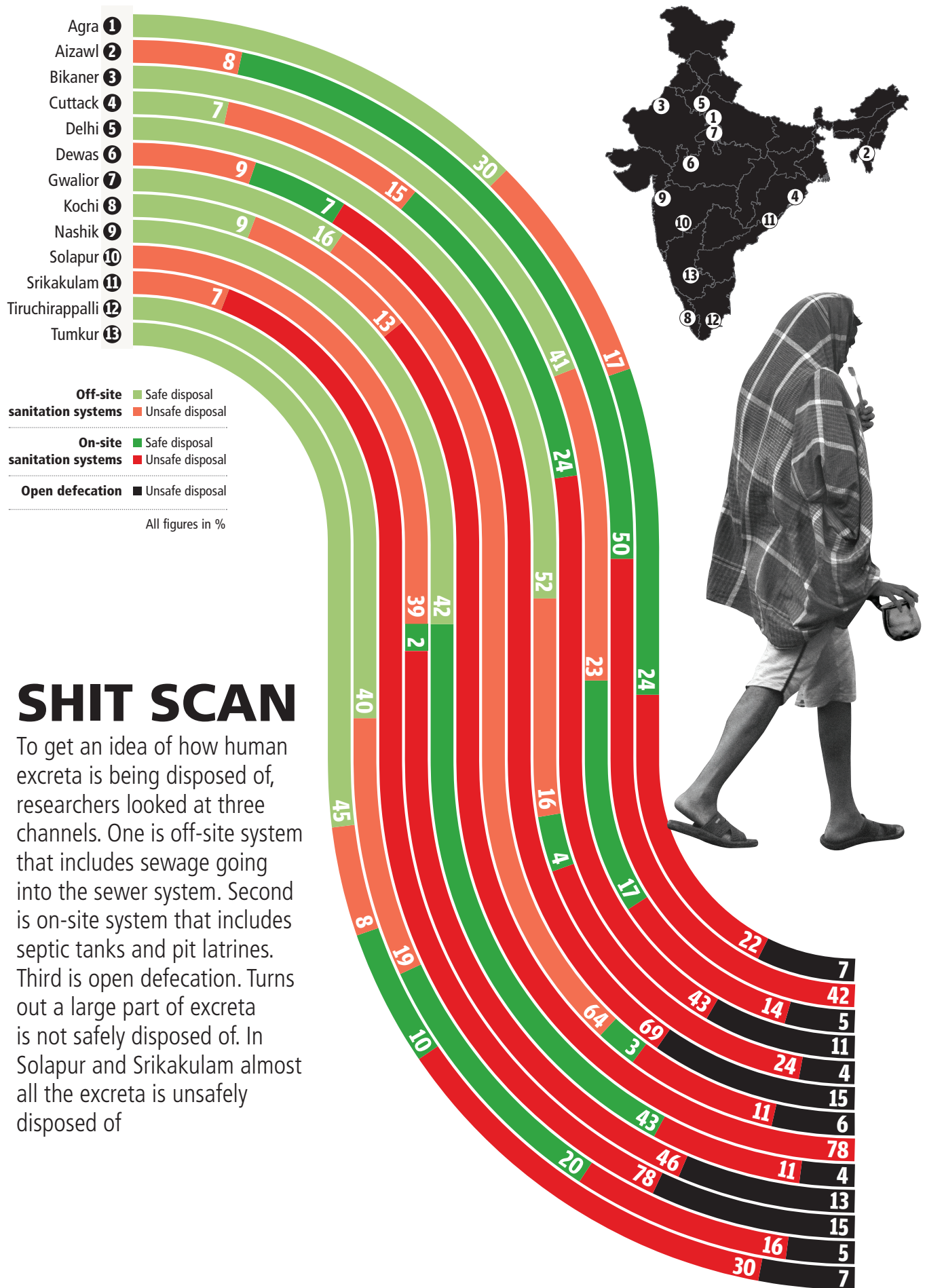
## Purpose of an SFD

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.

## The SFD Promotion Initiative

The main objective of the SFD Promotion Initiative is to continue further development of the SFD approach. This approach includes standardized guidance – a methodology and tools - for the easy production of standardized SFDs, backed by a description of information sources and the enabling environment in the city concerned.

The initiative aimed to test the approach in 50 cities in Africa, Asia and Latin America and, for the benefit of sanitation practitioners, decision-makers and civil society across the globe, the result is disseminated via the SFD web portal hosted by the Sustainable Sanitation Alliance (SuSanA) platform ([www.sfd.susana.org](http://www.sfd.susana.org)). The initiative is being managed by The Global Sector Program on Sustainable Sanitation of the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ GmbH) under the umbrella of the Sustainable Sanitation Alliance (SuSanA). Since November 2014, GIZ has been supported by the Bill & Melinda Gates Foundation.





# Africa

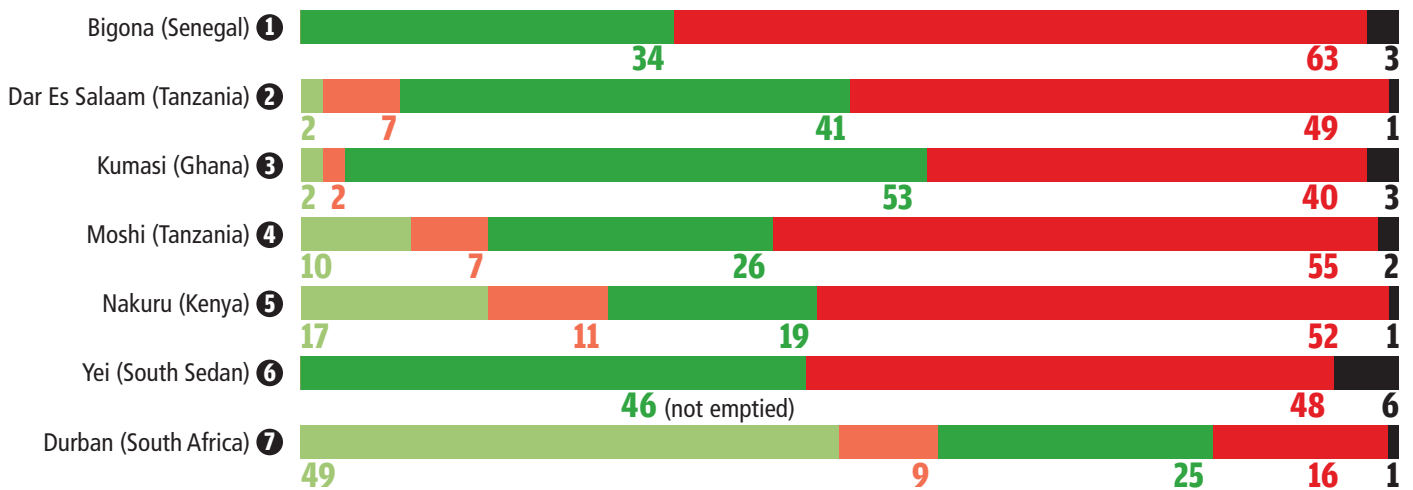


**Off-site sanitation systems** ■ Safe disposal ■ Unsafe disposal

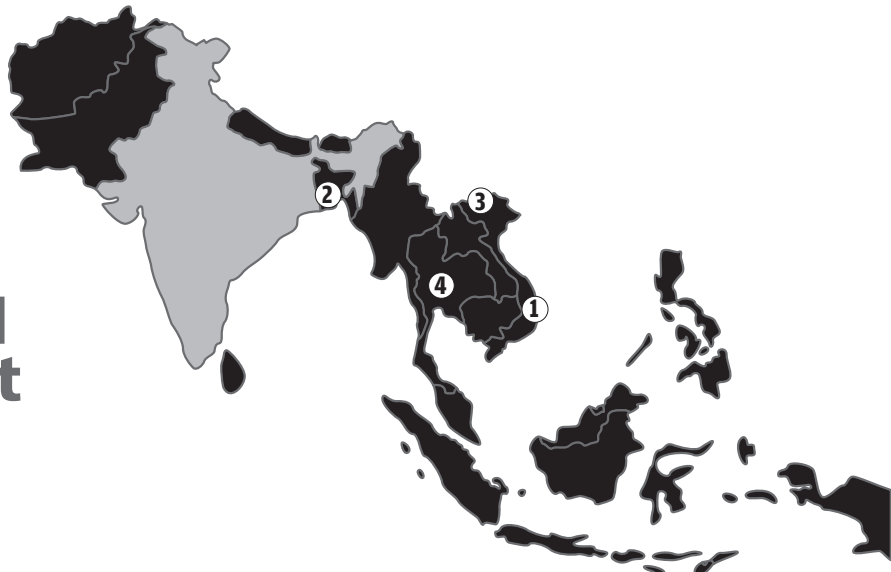
**On-site sanitation systems** ■ Safe disposal ■ Unsafe disposal

**Open defecation** ■ Unsafe disposal

All figures in %



# South and South East Asia



## About CSE

Centre for Science and Environment (CSE) is New Delhi based independent public research organization that aims to analyze and study the relationship between environment and development and create public consciousness about the need for sustainable development. The centre was set up in 1980 and is globally acknowledged for its intellectual leadership, policy advocacy and capacity building.

In 2012 CSE has published 7<sup>th</sup> report - India's first and most comprehensive survey of water and sewage management in a two volume set publication title – 'Excreta Matters'. The publication is based on data and information collected from over 71 cities in different agro-climatic zones on all aspects of water management (sourcing, treatment (water and waste), supply, pricing and equity etc). The book outlines an approach towards sustainable water and sewage management in Indian cities.

## Background of Research

In 2012-2013 the Water and Sanitation Program (WSP) of the World Bank carried out an analysis of excreta management in 12 cities and developed new tools for assessing the context and outcomes relating to the flow of excreta through the city.

Building on this work, in 2014 the centre partnered with a group of institutions active in the field of excreta management to promote excreta flow analysis (septage and sewage) to inform urban sanitation programming through the service delivery assessment tool - Shit Flow Diagrams (SFDs), developed by Water and Sanitation Programme - World Bank. CSE has prepared SFDs for 11 cities in India as part of the above initiative.



## 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**

**CSE**  


**eawag**  
aquatic research ooo

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

**BILL & MELINDA  
GATES foundation**

### Contact for further information

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