

WIN-SA aims to capture the innovative work of people tackling real service delivery challenges. It also aims to stimulate learning and sharing around these challenges to support creative solutions. Most importantly, WIN-SA strengthens peer-to-peer learning within the water sector.

The fate of excreta produced by urban populations across the globe is often poorly understood. Particularly in low-and middle-income countries with rapidly expanding cities, excreta management represents a growing challenge; generating significant negative public health and environmental risks. A recent visit by the sanitation experts from the Centre for Science and Environment (CSE) based in India, Delhi introduced this magnificent tool to a group of South Africa-based sanitation practitioners and researchers at an event held at the Water Research Commission (WRC) offices in Pretoria.

An excreta flow diagram, which is also known as the shit flow diagram, (SFD) is a tool that is used to readily understand and communicate by 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.



Shit Flow Diagram training session at WRC offices

Between the years 2012 and 2013, a team of sanitation researchers from 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 faecal matter through the city. The Excreta Flow Diagram was utilised as a tool to provide more comprehensive understanding of excreta management throughout the sanitation service chain.

Building on this work, a group of institutions active in the field of excreta management convened in June 2014 to

further develop the service delivery assessment tool and Shit Flow Diagrams, or SFDs, developed by WSP which clearly and simply shows how excreta is or is not contained as it moves along multiple pathways from defecation to disposal or end-use. This joint initiative, the SFD Promotion Initiative, is managed under the umbrella of the Sustainable Sanitation Alliance (SuSanA).

The Shit Flow Diagram now appears to be a new tool to assist cities in managing their faecal problems. Thanks to the consortium of experts behind the development of such an initiative; the Water and Sanitation Program (WSP) of the World Bank; the Global Sector Program on Sustainable Sanitation of the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ GmbH) commissioned by the German Federal Ministry for Economic Development and Cooperation (BMZ); the Department of Water and Sanitation in Developing Countries (SANDEC) at the Swiss Federal Institute of Aquatic Science and Technology (EAWAG); the water@leeds research group of the University of Leeds (UoL); the Water, Engineering and Development Centre (WEDC) of Loughborough University, and the Centre for Science and Environment in Delhi (CSE). Since November 2014, GIZ has been supported by the Bill & Melinda Gates Foundation to promote this initiative.

Dr Suresh Kumar Rohilla, a programme Director for Water Management at CSE says, "The SFD Promotion Initiative has set up a team of experienced SFD authors to provide helpdesk support to the process of creating an SFD: www.sfd.susana.org/toolbox/sfd-helpdesk. There, you are able to work on an embedded form of the SFD report, to upload the supporting documents and to directly communicate with the SFD Team". Rohilla further adds, "This is a protected area and can only be seen by you. Your SFDs will become accessible to the SFD team once you submit it to revision or attach it

to a question. To use the helpdesk you simply have to click on the “Login to helpdesk” button on top right of the SFD Portal and log in using your Sustainable Sanitation Alliance (SuSanA) credentials”

According to Rohilla in the first phase of this project, the SFD approach was applied in about 40 cities worldwide. A key objective of the next phase of the project is to promote and facilitate the use of SFDs by city authorities worldwide, development partners and utilities as part of the urban sanitation advocacy and planning process, by making SFDs a standard tool for identifying key issues and challenges in cities or towns.

The next steps of the SFD Promotion Initiative also include:

- Technical refinement: phase 1 SFDs reveal several areas where new research could improve SFD credibility
- Tool refinement: a review of usability of all SFD tools will enable their further refinement and improvement
- Direct support: design and delivery of a support mechanism (web-based FAQs, tools and helpdesk) for the development of further SFDs in partnership with cities and towns
- Scaling up: availability and promotion of the refined tools will encourage the use of the SFD approach for advocacy and decision support
- Quality control: roll-out of a quality assessment process for stakeholders preparing their own SFDs
- Often people do not understand where the shit goes to

WRC-CSE collaboration benefits South Africa



When a South African delegation headed by the CEO, Mr Dhesigen Naidoo visited India in January 2016, it formalised a needs-based knowledge partnership for collaborative research, knowledge exchange, dissemination and capacity

building, with the CSE in Delhi. It is through this formalised agreement that South Africa is beginning to reap the fruits of getting knowledge exchange of new sanitation management tools from India.

Bhagwan explains, “Amongst the clauses of the agreement between CSE and the WRC is that the two organisations will continually exchange knowledge on high impact projects. The agreement, stipulates that the WRC will become the local host and regional hub partner for the various CSE training programmes in Africa. The training session on excreta flow diagram is one such exchange. Although India is a developing country but is already far ahead of South Africa when it comes to sanitation management tools that South Africa can learn from”.