

## Business Of Cleanliness

In May, Indore was declared India's cleanest city. It beat 433 other cities in a survey conducted by the Centre, which ranked them on various sanitation and cleanliness parameters, including waste collection, open defecation free (ODF) status and feedback from citizens. The survey is part of the government's initiative towards a cleaner India. Its focus on sanitation, open defecation and waste collection is significant, considering their impact on the environment, and on the health of city dwellers.

The Swachh Bharat Mission plans to achieve safe sanitation for all by 2019. The government has a clearly-defined progress path for achieving open defecation free cities and districts/villages. More critically, there is also a well-defined process, for the different phases of the mission, across the sanitation value chain - build, use, maintain and treat (BUMT). This effort needs to be sustained after 2019.

Nationally, we generate a staggering 1.7 million tonnes of fecal waste every day. However, there are no systems in place to safely dispose the bulk of this waste. Nearly 80 per cent of this sludge - a human excreta and water mixture that bears disease-carrying bacteria and pathogens - remains untreated and is dumped into drains, lakes or rivers, posing a serious threat to safe and healthy living.

The fecal sludge management system (FSM) is a solution to this problem. Successfully adopted by several countries in south-east Asia, FSM involves collecting, transporting and treating fecal sludge and septage from pit latrines, septic tanks or other onsite sanitation systems. This waste is then treated at septage treatment plants.

FSM is an effective alternative to traditional sewerage networks - both in terms of construction costs and time-taken. Using non-sewered sanitation systems helps to treat the bulk of waste from onsite sanitation facilities such as pit latrines and septic tanks. In fact, more than 70 per cent households with safe sanitation facilities are based on such onsite systems, and in a majority of cities there are no sewerage networks or sewage treatment plants. Currently, the waste is collected by private operators, who empty the sludge using vacu-trucks.

The collected waste is dumped indiscriminately in the nearest open space. This poses grievous dangers of infection since the untreated sludge comes back into human contact through either the soil, or through untreated water contaminated with the bacteria and pathogen load of the dumped sludge. The good news is that these truck operators can be monitored through a simple GPS tracking process in order to ensure that they dump the waste at treatment plants/pre-determined sites.

Analysis has shown that treatment plants need to be conveniently located, bearing in mind the need for vacu-trucks operators to make money. The FSM ecosystem requires its stakeholders to collaborate closely. While the government will provide technical assistance to states and cities to design and implement effective fecal sludge management and treatment systems, citizens need to play their part as well. For instance, they need to be aware about the importance of a regular schedule for desludging septic tanks. They must also be ready to pay part of the cost of running FS treatment plants in their cities through regular service charges, or through regular taxes.

Perhaps the most important role in the FSM chain is that of sanitation workers. From extraction and collection to transportation and disposal, they are key to an effective FSM system. With no proper disposal system or safety regulations in place, they face serious health hazards. Their status in the workforce hierarchy is low. However, there is huge potential in the FSM system

businesses for sanitation workers. The sludge is nutrient-rich. The waste, after treatment, can be given to farmers for use as organic compost. It can even be treated and used for biogas, or to manufacture fuel pellets or ethanol. Once pathogens and bacteria are removed, the water can be used for irrigation, construction, by industry in cooling plants, by RWAs and housing societies for gardens and flushing and by government agencies for parks.

With appropriate training, sanitation workers can be empowered to own and run FSM businesses - much like the producer cooperatives of the agriculture sector. While FSM is advantageous at many levels, perhaps the most significant benefit that improved sanitation offers is public health. Cleaner water bodies mean reduced incidence of water-borne diseases and reduced mortality linked to diarrhoeal diseases - especially among children less than five years old. We lose nearly 1,000 children a day to poor sanitation.

Effective sanitation measures like FSM are critical in saving these lives. A national policy is in place; it is now incumbent on cities and state governments to operationalise it. FSM is not only an engineering or infrastructure solution, but a city system that requires the resolve of each stakeholder to make the city fecal sludge free, and meet the objective of clean cities, as envisioned in the Swachh Bharat Mission.

Kidwai is chair, FICCI Water Mission and Krishna is country lead, Water Sanitation & Hygiene, India Country Office, Bill & Melinda Gates Foundation

END

Downloaded from [crackIAS.com](http://crackIAS.com)

© **Zuccess App** by [crackIAS.com](http://crackIAS.com)