

Cities need a policy on sanitation

Communities are willing to become stakeholders in clean toilet projects

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AS INDIA aspires for global superpower status, the progress of its cities and villages is languishing in open garbage dumps, untreated sewage, clogged drains, and in the households of 700 million with inadequate or no access to sanitation. Precious resources are being wasted on tackling preventable diseases, bringing years of national apathy into our sanitised drawing rooms.

Consider the outbreak of leptospirosis in Surat earlier this year, caused by the presence of dead animals in floodwater; a chikungunya outbreak that affected lakhs across India, caused by mosquitoes breeding in stagnant rainwater; and Delhi's recent brush with the deadly dengue.

According to Profiling "Informal City" of Delhi - a 2005 Water Aid study, 3300 million litres of mostly untreated sewage flows into the Yamuna each day. Of the total wastewater generated in the four metros, barely 30 per cent is treated before disposal. According to a 1996 NCAER report, of the 300 urban centres that had sewerage systems, treatment facilities were available in only 70 cities. Even where these are currently present, they often operate on obsolete technology and are usually overstretched or mismanaged.

This untreated or partially treated wastewater eventually seeps into our rivers, lakes, and groundwater, leading to increasing incidences of disease. This is why the mere "taps and toilets" approach is no longer sufficient. Sporadic provision of sanitation infrastructure and upgrade needs to be replaced by sustainable service delivery, as part of a larger challenge of changing attitudes towards personal hygiene, civic responsibility and proper usage of services.

More than two thirds of toilets in urban areas either empty into open drains or are not connected to any. More than one third of the urban population relies on traditional disposal channels like septic tanks, most of which go unchecked for years together.

Public toilets now dot our cityscapes, but they are rarely used, and are often missing where they are needed most, with more than three fourths of Indian slums without any access to sanitation. This gap in de-

mand and supply is the crux of the challenge of urban sanitation, compounded by an absence of service delivery and lack of awareness. Good sanitation needs to encompass personal hygiene, safe excreta and wastewater disposal, solid waste management, disease control and drainage.

India has no urban sanitation policy. In lieu of this, central and state governments have relied on urban local bodies, and sometimes NGOs, to address the challenges of sanitation in our cities and towns, without providing them with even a credible blueprint. A 2005 World Bank report says that "a chronic lack of urban sanitation policy and planning activity has made a major contribution to lack of progress in the sector."

Successful precedents exist, like the Mumbai Slum Sanitation Programme, based on a collaborative framework between NGOs, community-based organisations and private contractors, operationalised through community mobilisation and household contributions. But even sporadic local successes like this and national ones like Sulabh Shuchalayas have not been built upon.

The success of these approaches underscores the need for good service delivery, to address common factors that discourage public toilet usage in cities. These include lack of privacy and insecurity, made worse by inadequate lighting, poor accessibility and unhygienic conditions, owing to patchy water and electricity supply. According to the World Bank, most Indian cities get less than 3 hours of water supply per day, one of the lowest in developing countries, and only one per cent of Delhi's population is connected to 24/7 water supply. Thus it is becoming increasingly difficult to sustain water intensive toilet technologies.

Above all, there is a growing need to create awareness on the proper usage of sanitation facilities, just as it is important to alert people on the fallout of bad sanitation. The successes of demand driven programmes like in Mumbai shows that more and more communities are willing to pay for, and participate in the provision of basic sanitation. As the next story shows, our villages are gradually changing with the government's Total Sanitation Campaign. It is time now to clean up our fast expanding cities with shrinking (and stinking) public spaces.

WHY ACT?

A single gram of faeces contains 10 million viruses, one million bacteria, a thousand parasite cysts and a hundred eggs of worms. Direct or indirect exposure to these causes deadly diseases like diarrhoea, typhoid and cholera.

1.6 mn

children under the age of 5 years die due to lack of safe water and sanitation every year.

- World wide 443 million school days are lost to water related illness.
- The 2006 UNDP HDI Report estimates that it will cost about \$ 10 billion a year to achieve MDG goals on access to water and sanitation.
- In India, water related problems result in around 4.5 lakh diarrhoeal deaths annually- more than in any other country.

3.9 %

of the total global deaths in 2001 were attributed to water, sanitation and hygiene related ill health.

- 5 of the 10 top killer diseases of children aged 1-14 in India's rural areas are related to water and sanitation.
- The Total Sanitation Campaign being implemented in 559 districts is costing the country US\$ 1.39 billion.
- The average time currently spent defecating in the open is about 1-1.5 hours per day. This translates into a loss of Rs 9 per household per day.

Sources: UNDP, WHO, UNICEF, WaterAid, World Bank, SACOSAN

FROM DRAINS TO FINE DINING

Deconstruct any fancy pastry, cheesecake, soufflé or even a laddoo and by tracking their ingredients you will reach the slums and drains where millions defecate in the open everyday. As the graphic below shows, a lot of this filth and waste finds a way to infect our bodies.

MILK, CREAM, BUTTER
SOURCE: DAIRY FARMS
Delhi's dairy farms are located near the dirtiest drains and garbage dumps like Najafgarh open drain, Gazipur dump, etc. In Mumbai milk colonies are overcrowded and a big sanitary hazard. Dairy products run the risk of contamination because dairy farms lack proper drainage, waste and manure disposal systems and use dirty feed. Infected milk can cause all kinds of diseases.

FLOUR/MAIDA/SUJI
SOURCE: NEIGHBOURHOOD ATTA CHAKKI
Most flour in India is ground at local atta chakkis with pathetic hygiene. Chakkis are infested with pests like flour beetle and rodents. Rats and beetles get into grain silos resulting in rat droppings being processed during milling. Wheat can contain up to 9mg of rodent droppings in every 450g of grain.

EGGS
SOURCE: POULTRY FARMS
Small poultry farmers leave hens free to eat filth near sewage, open drains and garbage dumps, thus increasing toxic content in eggs. In bigger farms, closed, unhygienic poultry conditions and improper disposal of wastes like stale food, dead birds and excreta make them filthy and unhygienic.

DECORATIONS
SOURCE: LOCAL SUBURBS/SLUMS
Packaging and decorations are produced locally. Boxes are usually made in small grimy cardboard manufacturing units. Accessories like paper cups are made by slum dwellers under unhygienic conditions. The material used for the boxes and bags are normally not food grade.

HUMAN LINK
SOURCE: WORKERS
A majority of the workers come from low-income strata and stay in slums and unclean, grubby environment. This makes the task of inculcating good hygiene habits and changing these workers' mindsets a major challenge. Working environment is very unhygienic with workers working up to 15 hours a day. Parts of the pastry or sweets may also be prepared in filthy slums.

VARKH/SILVER FOIL
Cattle intestines are pulled out of carcasses, washed, bound into pages and pounded with silver blocks between them to make foil. Varkh thus contains traces of blood and stools of cattle.

WAREHOUSE
Animal droppings and urine can infect canned foods and beverages stored in dirty warehouses. Well's disease is a deadly illness caused when humans come in contact with infected animals' urine.

Text: RADHIKA MITTAL; Illustrations: JAYANTO & ABHIMANYU SINHA
Sources: FAO, USDA, Planning Commission Report, The Prevention of Food Adulteration Act, The Yamuna Act Plan

Demand for clean toilets has to come from users

Saikat Neogi

AFTER A visit to the banks of Ganga in 1915, Mahatma Gandhi wrote: "It filled me with agony to see people performing natural functions on the thoroughfares and river banks." Nearly a century later little has changed. Open defecation still remains a norm in rural India where, according to Census 2001, just 22 per cent households have access to basic sanitation facilities.

As early as in 1986, the government launched an ambitious Central Rural Sanitation Programme (CRSP), which provided 100 per cent subsidy to every household to construct pucca, twin-pit latrines. The programme was a huge failure despite good intentions. There was simply no demand for latrines in rural India and the government scheme did not address the mindset. An enclosed bathroom was nowhere on the illiterate villagers' wish list.

"There was lack of people's participation and even if toilets were created they were not put to use," says C Ajith Kumar, operation analyst at the World Bank's Water and Sanitation Program. Toilets constructed with subsidy did not ensure usage or behavioural change and a government study found that only 5 per cent of the subsidised toilets were used as people still preferred to defecate in the open.

It took 13 years for the government to realise that the subsidy-led initiative was not working out. The CRSP was scrapped in 1999 and was replaced by a new, and demand driven, Total Sanitary Campaign. The policy stressed on information, education and communication about the need for sanitation facilities. Though the drive added 2.8 million household toilets annually, it is far from adequate. According to a World Bank report, it will take until 2024 to achieve full household toilet coverage in rural India.

The biggest challenge in villages lies not in increasing the coverage of sanitation facilities, but in convincing people to use them.

"Significant investments in social mobilisation and awareness creation are required to achieve sustained behavioural change to make an open defecation free environment and reduce faecal oriented disease transmission," says Soma Ghosh Moullick, water and sanitation specialist at the World Bank's Water and Sanitation Program.

The UNDP Human Development Report 2006 testifies that the best models of a quantum change depend on partnerships between governments and communities with civil society organisations working as a bridge. "Local communities can identify low-cost appropriate technology to improve sanitation coverage," the report underlines. Government funding is important but it has to come through incentive schemes and targeted subsidies for those below the poverty line.

The first state to include community participation in public policy was West Bengal. Since 1990 the state government has developed a strategy to expand rural sanitation by creating a dedicated village institution to monitor coverage and training to villagers through NGOs. The campaign emphasises hygiene education and community involvement to generate demand and the state government supports networks of rural sanitary marts to manufacture low-cost latrine slabs.

The result: across the state two million toilets have been constructed in the last five years, increasing state coverage of rural sanitation from 12 per cent in 1991 to more than 40 per cent today. Government subsidies cover about 40 per cent of the cost of a latrine, but most public spending has gone into social marketing campaigns and programmes for latrine construction. "West Bengal's achievement over the past five years is built on more than a decade of political and institutional investment," the UNDP report commends.

In 2004, the Centre launched Nirmal Gram Puraskar or clean village award, which gives cash incentive to villages that achieve 100 per cent sanitation. In 2006 there were 38 recipients and this year the number has risen to 20 times. And by spending Rs 1.3 crore in 2005 and Rs 20 crore in 2006, the programme has facilitated in liberating 2.75 million rural people from open defecation.

The scheme is not only transforming lives but it is also creating peer pressure on neighbouring villages to go for total sanitation. India's challenge right now is to galvanise the rural communities and institutions like panchayats in creating demand for more toilets everywhere in the country. The next story shows how participatory process, sustained follow-up and motivation is meeting success in some parts of the country.

ROAD MAP

- Set up rural sanitary marts to develop low cost toilets
- Encourage gram panchayats to educate villagers on hygiene
- Promote micro-finance institutions to fund sanitation projects
- Cover all rural schools with toilet facilities

India can find inspiration from its local success stories

Renuka Bisht

INDIA IS a signatory to the Millennium Development Goal of halving the proportion of people without access to sanitation by 2015. As only less than a quarter of our citizens use sanitary facilities today, it does not look like we are going to keep this date.

Millions of Indians are forced to defecate in bags, buckets, fields, streams and roadside ditches. Although most of the people without sanitation coverage live in remote rural areas and urban slums that are the hardest to service, here we highlight successful models that when replicated can accelerate improved sanitation across the country.

The first block in the country to achieve 100 per cent sanitation was Nandigram-II in West Bengal. By 2003, all the households in the block had been furnished with toilets, which improved both the community surround-

ings and health. Ram Krishna Mission, with state government and UNICEF support, set up a local production and supply infrastructure. This arrangement not only supplies inexpensive sanitary materials, it also props up local livelihoods. After following this example statewide, sanitation coverage in West Bengal has increased from almost zero to over eighty per cent.

Also in 2003, the Thandavampatti hamlet in Tamil Nadu became the first rural habitation to be declared open defecation free. Here the local administration collaborated with Gramalaya and women's groups. With Water Partners International chipping in as well, the Kangaipatti village also pulled off a similar feat. In the countdown to 2006, the villagers constructed 117 toilets in 100 hours!

If the above examples involve different sections of civil society teaming up to improve sanitation, groundbreaking



public private partnerships are also pursuing similar objectives. Thrupur, also in Tamil Nadu, which generates a billion dollars through knitwear exports every year, offers a particularly promising example. While USAID provided important technical support, the private sector raised Rs 1,023 crore for a comprehensive urban project. This is intended to provide inexpensive sanitation for 80,000 slum

GLOBAL ROLE MODELS

TAJIKISTAN: More than 11,000 children are engaged in an outreach programme on sanitation

PAKISTAN: In the slums of Karachi, the sanitation programme involves 90% of the population, and the infant mortality rate has dropped from 130 to 40.

MOROCCO: Since 1992, sanitation coverage for the poorest has expanded fourfold.

residents, meet the growing demands of industrial users, and provide the town with its first sewerage system. Alandur and Chennai are also updating urban infrastructure on a commercially viable basis.

The female masons constructing, installing and maintaining sanitation blocks in Gujarat and Kerala would concur that improving sanitation is good business. Women can also be par-

ticularly potent triggers for improving sanitation services because they suffer worse indignities and insecurity when they relieve themselves in the open. In general, capacity-building across gender, class and caste lines is key to making sanitation socially and economically sustainable.

In Maharashtra, where over 2000 gram panchayats now have 100 per cent sanitation, the construction of public toilets for millions of slum residents has been carried out in consultation with the users. The social impact of this participatory approach cannot be overestimated.

In a peculiarly millennial update to caste-based scavenging, Chand Ram, the caretaker of a public toilet block in Dharavi, has said: "My family has cleaned toilets for generations. Here, I and three of my family provide 24-hour attendance in four shifts. Each of us earns Rs 1,500 a month. I had never dreamt of finding such a job, and with

such accommodation, in Mumbai."

It is no wonder that the now-famous Sulabh model has been delivering sanitation to poor and low-caste Indians on a commercial rather than charity basis. For a fee of about one rupee, 10 million petty traders, laborers, domestic workers and others use Sulabh facilities today.

Finally, it is important to invest in children as agents of change. Student brigades in Bangladesh and Tajikistan have effectively taken sanitation messages from their schools to their communities.

In India, Rajasthan's primary education councils have gotten together with UNICEF to promote sanitation in more than half of the 4300 schools in the districts of Alwar and Tonk. It is planned that all the schools in the state will have sanitation facilities by 2007. In a salutary footnote on the spin-offs of sanitation, girls' enrolment has already risen by 78 per cent.