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***Swachh Bharat!:* If Not *Clean India!*, Perhaps a Cleaner India by 2019?**

This paper examines the seven goals of the Swachh Bharat! Clean India! campaign inaugurated by Prime Minister Narendra Modi in 2014. Assessing the motivations for the campaign, the appropriateness of each goal and the obstacles and opportunities that face the campaign, the author welcomes the momentum that highest-level support brings to the unglamorous (but desperately urgent) policy area of solid and liquid waste-management. But the paper also underlines the immense cultural and administrative hurdles that have to be overcome.

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The Indian Budget of February 2016 allocated Rs 9,000 crores (about USD 1.4 billion) to the *Swachh Bharat! Clean India!* campaign launched by Prime Minister Narendra Modi on Mahatma Gandhi's birthday, 2 October 2014.² According to the *Swachh Bharat!* website, the goals to be achieved by 2019 are:

- Elimination of open defecation
- Eradication of manual scavenging

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² *Times of India*, 29 February 2016.

- Modern and scientific municipal solid waste management
- Behavioural change regarding healthy sanitation practices
- Awareness about sanitation and its linkage with public health
- Capacity augmentation for Urban Local Bodies (ULBs)
- Private sector participation in capital expenditure and operating expenditure.³

The programme has had the heavy backing of Mr Modi. When he launched it in 2014, it had a total price tag of Rs 62,000 crores (USD 9.5 billion). “In an event marked by fervour and symbolism”, a journalist wrote, “the Prime Minister ... wielded a broom and swept pavement in Valmiki Basti, a colony of sanitation workers” in Delhi.⁴ In making *Swachh Bharat!* a signature programme of his new government, the Prime Minister took a risk. If India looks grubby to voters in 2019 when elections come round, he and his party will be open to ridicule. Why take such a risk?

This paper examines the goals of *Swachh Bharat!*, assesses their significance and comments on the obstacles the programme confronts and the advantages it enjoys.

Elimination of Open Defecation

“Elimination of open defecation,” the first of the goals, is perhaps the most important for reasons of reputation, public health and potential to effect change that goes well beyond material things like toilets and sewers. National pride and immense damage currently inflicted on public health are involved.

In the eyes of people ranging from today’s NRIs (Non-Resident Indians) returning from overseas to Mahatma Gandhi in the 1920s, India has offered extraordinary examples of unhygienic practices. “During my wanderings”, Gandhi wrote in *Young India* in 1925, “nothing has been so painful to me as to observe our insanitation throughout the length and breadth of the land”.⁵ As Chief Minister of Gujarat, Modi courted NRIs constantly and had two extended stays in the United States in the 1990s, where he no doubt encountered the North American

³ “Mission Objectives,” http://swachhbharaturban.gov.in/writereaddata/Mission_objective.pdf.

⁴ Ritesh K. Srivastava, *Zee News*, 6 May 2015.

⁵ *Young India*, 19 November 1925.

obsession with “bathrooms”. NRIs welcomed Mr Modi’s election victory in 2014 and played a significant part in it. Lines of people defecating along railway lines and riverbanks at dawn every day are not the picture of the strong, modern India that the NRIs and domestic middle classes crave for.

There is a second, more powerful reason for wanting to eliminate open defecation. Widely accepted public health evidence suggests that in places where open defecation is prevalent – where there is no little attempt to tame excrement in some way – childhood mortality and mental and physical stunting are high – higher, in fact, than in economically poorer places where excrement is managed in some way. The pathogens in randomly dispersed faeces get into soil and water, are carried by flies, find their way onto the fingers of children and their carers and end up in a child’s gut. Such pathogens, as well as leading to diarrhea, consume nutrition that should be building bones, brains and muscles.

A report in the *New York Times* in 2014 summarized the research.⁶ From the late-1990s to 2006-2007, Bangladesh reduced childhood stunting from 59 per cent of children under the age of 5 to 43 per cent. In a similar period, India’s figure fell to only 46 per cent.⁷ A statistical analysis of the possible factors suggested that after asset ownership and a mother’s education, the elimination of open defecation was the most significant factor in explaining the decline. If families grew more prosperous, if mothers completed primary school and if toilets became available to more households, children grew healthier. Bangladeshis relished such news. In 2015, the *Daily Star* reported that stunting in Bangladesh had dropped to 36 per cent, while India’s stood at 39 per cent and Pakistan’s at 40 per cent.⁸ Bangladesh is the most densely-populated major country in the world with 1,200 people per square kilometre; India’s figure is 370; China’s 145.

⁶ *International New York Times*, 12-13 July 2014, pp. 1 and 6. Nicholas Kristof gave such reports further international exposure in a column *New York Times*, 15 October 2015. *Economist*, 4 July 2015, p. 24. A reply to critics of the research on which the stunting conclusions is in Diane Coffey *et al.*, “Stunting among Children, Facts and Implications”, *Economic and Political Weekly*, 24 August 2012, pp. 68-70. One of the studies is Dean Spears, *et al.*, “Open Defecation and Childhood Stunting in India: an Ecological Analysis of New Data for, 112 Districts,” *Plos One*, vol. 8, issue 9 (September 2013), pp. 1-9.

⁷ Derek Headey, “How Did Bangladesh Reduce Stunting so Rapidly”, Global Nutrition Report, 2014, http://globalnutritionreport.org/files/2014/11/gnr14_pn4g_09headey.pdf (accessed 6 March 2016). See Jairam Ramesh *et al* in *The Hindu*, “Heard of the Bangladesh Shining Story?” 7 Sept 2012, (<http://www.thehindu.com/opinion/op-ed/heard-of-the-bangladesh-shining-story/article3867058.ece>)

⁸ *Daily Star*, 4 November 2015.

If India builds toilets that work and are used, public health, especially childhood health, will improve. Healthier adults should enhance the results of the much-discussed “demographic dividend”. The goal of *Swachh Bharat!* is 100-million household toilets and 500,000 community toilets by 2019. But to build a toilet is one thing; to use it effectively is another.

Eradication of Manual Scavenging

There are major technical and cultural obstacles to cleaning up India’s liquid waste and eliminating manual scavenging. Most of India’s 4,000 urban areas do not have sewerage systems; even in the larger cities that do, coverage is incomplete and sewage treatment plants inadequate. In 2005, the 892 largest towns and cities were estimated to generate 29,000 mega litres of sewage a day and had treatment plants capable of dealing with about one-fifth of this volume.⁹ Ten years later, a rough calculation estimated that urban India was producing 62,000 mega litres of sewage a day, of which it had the capacity to treat 37 per cent.¹⁰ The remainder, though it is removed from the households of the people who generate it, finds its way into polluted streams, rivers, lakes, marshlands and the sea. In smaller towns, where better-off people may have a “septic tank”, the chances are that the tank is simply a container which gathers excrement until it is overflowing and a “honeysucker” – a truck with a suction pump – is requisitioned to pump it out. In a *Swachh Bharat!* system, the truck would empty its load at a sewage treatment centre that would charge for accepting it, just as the truck owners will have charged the residents they serve. In practice, however, most honeysuckers dump their loads clandestinely where they can. It is almost impossible for local governments to regulate a popular service that removes smells from the noses of better-off voters.

In rural north India, where open defecation is normal, the various well-designed options for self-composting toilets have not proved popular, even though the Sulabh International Museum of Toilets has operated in Delhi since 1992, and its founder has been preaching the gospel of

⁹ “Status of Sewage Treatment in India” (New Delhi: Central Pollution Control Board [CPCB], 2005), Table B, p. 2, <http://cpcb.nic.in/newitems/12.pdf> (accessed 5 January 2016). For comparison, 29,000 mega litres is the equivalent of about 12,000 Olympic swimming pools of sewage a day.

¹⁰ Lok Sabha Unstarred Question No. 1478, 8 December 2015, citing CPCB figures from March 2015, <http://www.indiaenvironmentportal.org.in/files/file/Capacity%20of%20Sewage%20Treatment%20Plants.pdf> (accessed 5 January 2016).

effective toilets for more than 40 years.¹¹ Under *Swachh Bharat!*, composting toilets are being built at a great rate – 10 million by midway through 2015, according to the government.¹² But it is not hard to build toilets and meet targets if the rewards are there for the contractors who do the building, and the people who receive the service, in this case, a new room. Such toilets often get used as store rooms, and people continue to defecate in the fields.¹³

The problems in inducing people to build and use toilets in their households connect to the second of the *Swachh Bharat!* goals – “Eradication of Manual Scavenging.” Connection with human waste – including having a toilet as a recognised part of the household – is repugnant to people with keen senses of “purity” and “pollution”. Describing his caste-Hindu house in Old Delhi in the 1960s, V K Srivastava writes:

the norm of just one latrine a house, and that too situated on the ground floor, was largely followed, and I think it was primarily because of the impurity associated with it ...

The latrine used to be extremely small, just enough to accommodate one person, dingy, almost like a dungeon, and poorly-lit and ventilated, without any facility of water inside.¹⁴

The men and women who cleaned the latrines in Srivastava’s house were of course Dalits who were unable to hire rickshaws, because

my grandfather ... said they feared that the rickshaw-puller might be unwilling to take them as his passengers for their caste status was known to everyone, and one who did not know them personally would be able to infer it from their dresses and demeanour.¹⁵

¹¹ <http://www.sulabhtoiletmuseum.org/about-us>. Sulabh International, an NGO working in public sanitation and particularly toilet-related matters since 1970, spells out its goal to install toilets that are “socially acceptable, economically affordable, technologically appropriate and do[es] not require scavengers to clean the pits”. <http://www.sulabhinternational.org/content/sulabh-story-brief>

¹² *Times of India*, 23 November 2015, reporting on a National Sample Survey Office survey.

¹³ Assa Doron and Robin Jeffrey, “Notes on Open Defecation in India”, *Economic and Political Weekly*, 6 December 2014, pp. 72-8.

¹⁴ Vinay Kumar Srivastava, “On Sanitation: a Memory Ethnography,” *Social Change*, vol. 44, no. 2 (2014), p. 277.

¹⁵ *Ibid.*, p. 284.

“The truism”, Srivastava concludes, “is that things have not changed much and millions of people are even today engaged in cleaning latrines and carrying loads of human waste on their heads”.¹⁶ The fact that ideas of purity and pollution based on caste run wide and deep adds to the difficulty of dealing with both liquid waste (excrement) and solid waste. People of all castes want waste removed from their premises as quickly as possible, and the people who clean the streets, drains and latrines are not “our people”.¹⁷

Cleaning dry latrines by hand is not the dominant way of disposing of excrement, but it is still widely practised, in spite of denials by various governments and organisations. The Census of 2011 calculated that 0.32 per cent of India’s 247 million households had latrines cleaned by human hands, though this has been illegal since 1993.¹⁸ That works out to 800,000 households around the country.¹⁹

“Manual scavenging” ought to include the poorly equipped men (women are seldom forced into such loathsome work) who go down the sewers and drains in cities around the country, and into tanks of excrement that masquerade as “septic tanks”, to clear blockages. On 19 January 2016, the same day that Indian media broke the story of the suicide of a young Dalit PhD scholar at the University of Hyderabad, the online edition of *The Hindu* carried a four-paragraph item in its “city news” section: “Four die of asphyxiation as they enter septic tank in Chennai hotel”.²⁰ An overflowing cesspit-cum-“septic tank” had needed to be cleared. The accumulated “sewer gas” eventually killed four people. Would-be rescuers went into the tank to try and save the first workers when the latter were overcome. To give *The Hindu* its due, the Chennai print edition of the newspaper on 20 January gave the deaths of the four workers a two-column headline at the bottom of the front page. But the top story of the day with a five-column headline was the suicide in Hyderabad and its political consequences.

¹⁶ Ibid., p. 286.

¹⁷ Ibid., p. 288. Srivastava points out that “notions of dirt and filth ... are differentially associated – the faeces of a child may not be regarded as ‘dirty’ as that of the elders”.

¹⁸ Susan E. Chaplin, *The Politics of Sanitation in India. Cities, Services and the State* (Hyderabad: Orient BlackSwan, 2011), pp. 175-6 has a table listing more than 20 measures intended to eliminate manual scavenging – and failing – between 1952 and 2005.

¹⁹ Houselisting & Housing Census, 2011. Table HH-14: Percentage of Households to Total Households by Amenities and Assets, column 98.

²⁰ *Hindu*, 19 January 2016.

Behavioural Change regarding Healthy Sanitation Practices

The authors of the *Swachh Bharat!* campaign have understood the deeply-held beliefs and prejudices that underpin attitudes to waste. Six weeks after the deaths of the four men in the cesspit in Chennai, their story had almost disappeared from the media. The scholar's suicide in Hyderabad, on the other hand, was taken up by national politicians and remained hotly discussed.

The sole allusion to the four deaths in the cesspit was full of implications. The deaths were mentioned in passing in reports about new Chennai airport where manual scavenging was still necessary. "Though the airport has been modernised, the authorities noted that the practice [manual removal of faeces] had been carried out in a few areas as the sewer lines had become quite old". Work was going on to replace the old sewers.²¹ A new airport had been built without simultaneously replacing necessary sewer lines. It was taken for granted that "someone" would be found to keep new toilets functioning even if sewer lines were not working. It proves extraordinarily difficult to get officials and citizens to think about and work on the management of excrement.

Much the same applies to the handling of "solid waste" – the thrown-away items that go with human households and daily commerce. One of the *Swachh Bharat!* billboards in Delhi in 2014 showed a middle-class woman throwing her kitchen waste off the balcony of her multi-story apartment block. The text in Hindi said: "How long will you think only of the home? Have some shame. Clean up your thinking!"



The cost of advertising for the first year of the campaign was put at Rs 94 crores (USD 14.5 million).²² Powerful advertising has to be part of efforts to create enduring change. The authors of *Swachh Bharat!* have cleverly made the symbol of Mahatma Gandhi a core element. His trademark iron-rimmed spectacles peer out from billboards, websites and promotional material. The well-known pen-and-ink drawing of Gandhi performing as a sweeper has become part of

²¹ *Hindu*, 22 February 2016.

²² *Economic Times*, 8 July 2015.

the advertising material. Gandhi worked on public sanitation from the time he returned to India in 1915. In the 1920s he lamented that “we are clean as individuals but not as members of the society or the nation” and that it was hard to change “bad habits handed down from generation to generation”.²³

There is a political bonus for the Bharatiya Janata Party’s government in making Gandhi a centrepiece of *Swachh Bharat!* It provides a way of demonstrating that the BJP also loves and claims “the father of the nation”, who has often been treated as the property of the Indian National Congress. The “BJP’s Gandhi” is the tireless reformer who wanted to clean India, not the Gandhi of religious brotherhood and benign and gentle nationalism.

Modern and Scientific Municipal Solid Waste-Management

If the woman in the billboard is not supposed to throw her waste off her balcony, what should she do? The *Swachh Bharat!* campaign has some excellent policy documents to work from. First among these are the Solid Waste Management Rules (SWMR) of 2000. The rules were the result of six years of legal cases and agitation by non-government organisations which led to Public Interest Litigation (PIL) being admitted by the Supreme Court. The SWM Rules – “an excellent manual for city managers written by city managers”, in the words of one of the activists,²⁴ emerged from a court-appointed committee. The Supreme Court endorsed such rules which were then prescribed by the Ministry of Environment and Forests of the Government of India on 25 September 2000.²⁵ India’s 4,000 urban local governments were thereafter expected to follow the rules.

The rules are admirable. They lay out in detail the best practices for collecting solid waste, minimizing the need for landfill and maximizing the ways in which thrown-away materials are reused, recycled or composted. The principles require:

- regular, predictable door-to-door collection

²³ *Young India*, 25 April 1929, and 27 August 1925.

²⁴ Almitra Patel, “Successes and Failures of WP (C) 888/96 on Solid Waste Management,” 29 April 2006, www.almitrapatel.com/docs/237.doc

²⁵ *Gazette of India*, Ministry of Environment and Forests, Notification, New Delhi, 25 September 2000, www.envfor.nic.in/legis/hsm/mswmhr.html.

- segregation of waste
- recycling
- composting of biodegradable waste
- no random burning
- community participation
- appropriate collection vehicles
- minimisation of manual handling of waste
- minimisation of landfill
- “scientific” landfill when unavoidable

The rules emphasise the necessity of sorting waste into different categories and the advantages of dealing with waste locally. In the last resort, the rules lay down the way in which a landfill should be set up and operated.²⁶ Admirable though the rules are, compliance has not been achieved by any local government in India. The rules represent a target, and the *Swachh Bharat!* programme provides additional funds to help local governments work towards these targets.

Awareness about Sanitation and its Linkage with Public Health

The SWM Rules instruct local governments to “organise awareness programmes ... to ensure community participation”. The rules themselves resulted from citizen awareness and initiative, and examples of successful waste management around India are invariably small-scale and based on substantial community understanding and involvement.

Places where public sanitation and waste management have improved illustrate the need for awareness and education. However, such awareness does not come easily or quickly, as two notable examples illustrate. The state of Kerala has the lowest rate of open defecation among states with populations more than 10 million. At the Census of 2011, 93 per cent of Kerala households had access to a toilet. For India as a whole, only 31 per cent of households had such

²⁶ Ibid., Schedule III, “Specifications for Landfill Sites.”

access. In the largest state, Uttar Pradesh, it was 22 per cent.²⁷ Among the large states, Kerala also has the lowest infant mortality rates, the highest levels of female literacy and the longest life expectancy. The connection between educated women and better health and public sanitation, suggested in Bangladesh's progress in reducing childhood stunting, is persuasive. Though achievement of such levels of female education in less-educated regions will not happen before 2019, it is a goal that *Swachh Bharat!* would do well to embrace as part of its public awareness efforts.

An example of rapid "community engagement" is to be found in the city of Surat in Gujarat. When Surat made world headlines in 1994 for an "outbreak of bubonic plague", it was notorious as the "dirtiest city in India".²⁸ Surtis, including doctors, fled their city during the plague panic. But in the aftermath, this "binding crisis", which seemed to threaten the rich and the poor alike, provoked remarkable reform of public sanitation and local government. Within two years, an external NGO pronounced Surat "the second cleanest city" in India, outranked only by the newly-built city of Chandigarh.²⁹ For the past twenty years, Surat has been rated as one of the country's cleanest, and it comes as close as any city to observance of the SWM Rules.

It took a sense of impending disaster affecting all classes to jolt a city into action. The Surat experience is not unique. Other great cities have needed "binding crises" to spur them to major transformations of public sanitation. London's fear of cholera, and the pervasiveness of the "great stink" of 1858, provoked sewer building and piped water.³⁰

Swachh Bharat! has an opportunity both to publicise and make use of a "binding crisis" in today's India. That "binding crisis" is the unacceptable levels of childhood stunting and infant mortality across north India, strongly related to open defecation. The consequences affect the children of better-off rural families almost as much as those of the poor. Flies don't read bank statements, and unwashed fingers that feed children can belong to both the rich and the poor.

²⁷ *Census of India, 2011*, Houselisting & Housing Census. Table Hh-14: Percentage of Households to Total Households by Amenities and Assets, http://www.censusindia.gov.in/2011census/hlo/HLO_Tables.html.

²⁸ Archana Ghosh and S. Sami Ahmad, *Plague in Surat. Crisis in Urban Governance* (New Delhi: Institute of Social Sciences, 1996), p. vi.

²⁹ Shah, *Public Health*, p. 238.

³⁰ Lee Jackson, *Dirty Old London: the Victorian Fight against Filth* (New Haven: Yale University Press, 2014), especially p. 97.

A community involvement campaign that linked sickly children with open defecation could generate the widespread action that *Swachh Bharat!* must generate enduring change in understanding and practices.

Capacity Augmentation for Urban Local Bodies (ULBs)

The inclusion of local governments among the targets of *Swachh Bharat!* is further evidence that the authors of the programme understand the obstacles. Local government in India is underpowered – administratively, financially and legally. In spite of Constitutional Amendments 73 and 74, introduced in 1993, to mandate that rural and urban areas must have elected local governments, both varieties remain creatures of the sub-national State governments that are required to give them most of their powers.

For officers of the elite Indian Administrative Service (IAS), to be a municipal commissioner is a step on a ladder that leads to better things. For officials of State governments, a position in local government can be a comfortable, secure billet with possibilities for peddling influence. But “a career in local government” is a phrase unlikely to be found in job advertisements or personal resumes. Though the requirements of local government are specialised, there is no designated cadre of local government officers, a point emphasised in a recent report.³¹ There is, however, a national body, the All India Institute of Local Self-Government founded in 1926.³² Among local government officials and sanitary engineers, there is a remarkable, self-selecting body of officers who have seen the importance of their tasks and throw themselves into waste management with passion. But they are not a majority, and institutional arrangements do not provide much help.

A procession of stories underlines the problems of local governments in raising funds, collecting rates and regularly paying their employees. In Hyderabad in 2015, the city Corporation was accused of placing “bins full of garbage” in front of businesses and residences in arrears of payment and putting “flexi banners listing top property tax defaulters at busy

³¹ *Approach towards Establishing Municipal Cadres in India*, Capacity Building for Urban Development project, Ministry of Urban Development and World Bank, February 2014, pp. 9-10.

³² <http://www.aiilsg.org>.

areas” of the city to try to shame them into payment.³³ In Chennai, residents, backed by a political party, blocked roads after officials seized movable property of a resident who owed 12 years in property tax. The police “advised the Chennai Corporation to defer action against property tax defaulters to avoid law and order problems”.³⁴ State governments zealously control decisions and purse-strings. The Municipal Commissioner of Patna in Bihar, an IAS officer of nine years’ standing, was suspended by the State government when he moved against illegally constructed buildings in the city.³⁵

To have the powers and the trained personnel to acquire land, build sewer lines and set up effective waste-management centres, local governments – as the *Swachh Bharat!* goals suggest – need to be transformed. But this is not so much a *Swachh Bharat!* goal as a condition that must be fulfilled in order achieve the programme’s *Clean India!* vision.

Private Sector Participation in Capital and Operating Expenditures

Public Private Partnerships (PPPs) are a favourite public-policy prescription worldwide. Critics say “the public” assumes the risk and “the private” takes the profits. Advocates, on the other hand, argue that private industry brings expertise, flexibility and capital to the necessary projects that governments have difficulty in executing, and both sides – and the “public interest” – can benefit. PPPs have existed for a number of years in Indian waste-management. The O.P. Jindal group runs the Timarpur-Okhla waste-to-energy plant in Delhi;³⁶ Ramky Enviro Engineers operate the Jawaharnagar landfill in Hyderabad;³⁷ waste-management centres set up in greater Bengaluru are PPPs.³⁸

As with the “augmentation of ULBs,” the involvement of PPPs in *Swachh Bharat!* is a means to an end, rather than a goal in itself. But for the “private” to be interested in waste, there has to be promise of profit, and profit of course is possible. The two biggest waste-management

³³ *Indian Express*, Hyderabad, 13 March 2015, p. 3.

³⁴ *Hindu*, 15 January 2015.

³⁵ *Hindu*, 14 December 2014.

³⁶ <http://towmcl.com/>.

³⁷ <http://ramkyenviroengineers.com/>.

³⁸ “Solid Waste Management in Bruhat Bangalore Mahanagara Palike (BBMP), [c. 2009], <http://218.248.45.169/download/health/swm.pdf>.

operators in the US are listed among *Fortune* 500's largest companies.³⁹ In India today, no company makes big returns on investment in waste-management, though those in the business have ideas about how they might. But vast class differences add a life-and-death aspect. Some of the country's poorest people claw a living from waste. Their efforts may be unsatisfactory from a public sanitation perspective, but their numbers and vulnerability make it essential that they find training, dignity and a place in the PPP-plans to manage waste.

Conclusion

Waste-management is more complex in India than anywhere in the world. The millions of poor people who live off some aspect of waste represent both a responsibility and an opportunity. The availability of thousands of workers who initially expect very little – regular payment and decent equipment would be a good start – means India can achieve a great deal in segregating, recycling, composting and re-using thrown-away things. And in improving the handling of waste, there is also the possibility of improving the lives of some of the poorest people through practices that impart training and enhance dignity. Bengaluru, for example, got its first-fully licensed woman garbage-truck driver in January 2016 through the efforts of a non-governmental organisation (NGO) to get people doing menial jobs into more highly skilled work.⁴⁰

Ideas and practices of caste introduce a visceral distaste into waste-management that is unknown elsewhere. The men and women who regularly die in drains and similar work – more than 1,300 in six years between 2008 and 2014 in Mumbai alone⁴¹ – are overwhelmingly Dalit or MBC (Most Backward Castes). For the “higher castes”, usually in positions of authority, there is a great deal of psychological baggage to be discarded before decisions about technology, payment and training can be effectively addressed. The new airport in Chennai, built without ascertaining whether it had adequate sewerage, seems a case in point. “The sweepers,” it was assumed, could be relied on to tide things over.

³⁹ ³⁹ “Fortune 500 2014,” <http://fortune.com/fortune500/waste-management-inc-207/>.

⁴⁰ *Hindu*, 21 January 2015.

⁴¹ *Indian Express*, 19 January 2015, quoting Mumbai Municipal Corporation estimates.

Population density makes freeing land to treat waste immensely difficult. Everyone wants waste cleared, but no one wants collection points, composting gardens, biomethanation centres, landfills or sewage treatment plants near them. Most of India's cities expand haphazardly, and what a municipality or planner might see as a site for waste facility, a developer might see as a valuable place for a housing colony or apartment block.

Swachh Bharat! therefore faces formidable obstacles. As a Gujarati Rashtriya Swayamsevak Sangh (RSS) man, however, Prime Minister Modi will be very familiar with the transformation of Surat after the plague panic of 2004. Around the country, there are remarkable NGOs, officials, engineers and well-intentioned private enterprises showing significant achievements. With sustained Central-government backing at the highest level, if not a *Clean India!*, at least a *Cleaner India!* is a possible goal for 2019.

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