

Where Bharat Goes¹

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I will not soon forget my astonishment when, in a stirring 2014 Independence Day address from Delhi's Red Fort, the prime minister spoke about open defecation. He correctly anticipated my surprise and that of millions of other listeners: 'Brothers and sisters, you must be shocked to hear the Prime Minister speaking of cleanliness and the need to build toilets from the ramparts of the Red Fort . . . I do not know how my speech is going to be criticized and how people will take it. But this is my heartfelt conviction' (The *Indian Express*, 2014).

To be sure, Congress leader and former rural development minister Jairam Ramesh had previously called for sanitation to become a *junoon*, or a national obsession. Minister Ramesh even encouraged people to 'first build toilets, then build temples' (Dasgupta, 2012; Deshpande, 2012). Yet, a prime minister using a high-profile address to ask people to 'make arrangements for toilets' was new, and, to a sanitation researcher like myself, a welcome change. For far too long, the pressing public health problem of open defecation had received far too little public attention.

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Why should the government care about open defecation?

Why should this government, or any government, concern itself with where people relieve themselves? The prime minister argued that people should build toilets to prevent indignity and discomfort to women and girls, and to make the country more appealing to tourists. In making the case for government action on sanitation, I would probably instead point to the death and disease that open defecation spreads: When people leave their faeces in the environment, their germs infect others. Infants and children are particularly vulnerable to germs spread by open defecation, which can make a person sick even if she herself uses a latrine. Indeed, there is now considerable evidence that open defecation kills many thousands of children in India each year and stunts the growth of hundreds of millions more (Coffey & Spears, 2017).

Open defecation's negative externalities, which is simply a term that economists use when an action has bad consequences for people who are not part of the decision to take that action, provide strong justification for government intervention. Even people who advocate for small government often favour government intervention to address negative externalities. The undeniable harm that open defecation does to India's children and, through their human capital development, to the economy, seems to make as clear a case for government intervention as there ever was. Yet, that fact tells us little about exactly what the government should do.

The Swachh Bharat Mission planned to build one latrine per second, with little emphasis on use

Shortly after the 2014 Independence Day address, on Gandhi Jayanti, the prime minister announced the Swachh Bharat Mission (SBM), a flagship programme of the new administration. Not only did the SBM aim to encourage greater public cleanliness and better trash management, it also aimed to eliminate open defecation by 2 October 2019, Gandhi's 150th birth anniversary.

Assuming that a lack of latrines causes people to defecate in the open, the SBM promised to build a latrine for every household that lacked one within five years. According to Census data, 12.3 crore

households did not have a latrine in 2011 (Government of India, 2012b). This implied that the SBM would need to build 67,000 new latrines per day for five years, or nearly one latrine per second. At a subsidy of Rs 12,000 per latrine, this means spending Rs 1.5 lakh crore rupees, plus administrative costs, over five years (Coffey & Spears, 2017).

As we will see below, lack of funding is not among the core challenges to the success of the SBM. Nevertheless, budget allocations have fallen short of Rs 30,000 crore per year. Accountability Initiative, a Delhi-based research group which tracks public finance, found that allocations to SBM-Gramin (SBM-G), the rural arm of SBM responsible for constructing toilets in villages, began at Rs 2,850 crore in the financial year 2014-15 and increased to approximately Rs 6,525 crore in 2015-16 and Rs 10,500 crore in 2016-17. The 2017-18 allocation for SBM-G was Rs 13,948 crore (Kapur & Deshpande, 2018). Although these allocations are less than what would be needed to build a latrine for every household, they are large compared to allocations for prior sanitation programmes. Further, unlike many public programmes that Accountability Initiative tracks, the fraction of allocated funds that have been spent in recent years is very high (Kapur & Deshpande 2018).

SBM-G programme guidelines emphasize the importance of ‘behaviour change communication’—that is, persuading people to use latrines (MDWS, 2017). However, government spending suggests that little education and communication happens on the ground. Accountability Initiative’s 2016-17 Budget Brief reports that between the SBM’s launch in 2014 and February 2016 only 1 per cent of programme spending was used to fund Information, Education and Communication (IEC) activities (Kapur, Choudhury & Srinivas, 2016). As we will see below, the SBM-G’s focus on toilet construction at the expense of education and communication is misguided.

Why the SBM will not eliminate open defecation by 2019

The SBM repeats some of the mistakes of prior sanitation programmes. When the SBM guidelines were being written in 2014, there was already considerable evidence suggesting that a large-scale latrine-construction programme was unlikely to eliminate open defecation.

One important source of evidence for this point is the government's own experience with prior sanitation programmes, such as the Total Sanitation Campaign (1999–2011) and the Nirmal Bharat Abhiyan (2012–14). The SBM essentially scales up these prior sanitation programmes, which also focused on latrine construction, but which received lesser funding and enjoyed lesser political support than the SBM.

Between 1999 and 2011, the Total Sanitation Campaign (TSC) spent about Rs 6,140 crore, the large majority of which was spent on constructing household and school latrines. By 2011, administrative data from the Ministry of Drinking Water and Sanitation reported that rural latrine coverage had increased to 68 per cent of households, up from 22 per cent in the 2001 Census (Kapur & Ibrahim, 2013; Hueso & Bell, 2013). Yet, in contrast to these administrative data, the 2011 Census data revealed that only about 30 per cent of rural Indian households had a toilet or a latrine. Sanitation professionals and the media pointed to the large number of 'missing toilets' as evidence that the TSC had not successfully reduced open defecation (Press Trust of India, 2013; Tiwari, 2014; Shardal, 2012; Munshi, 2012).

Despite the TSC's apparent failure to accelerate latrine adoption in rural India, the Nirmal Bharat Abhiyan (NBA) that followed it continued the government's focus on latrine construction. The major difference between the TSC and the NBA was the amount of money the government allocated to each household latrine. Under the TSC, the per-household latrine subsidy increased gradually from Rs 500 in 1999 to Rs 2,200 in 2011 (Alok, 2010; MDWS, 2010), but under the NBA the subsidy increased to Rs 10,000 (Press Information Bureau, 2014). The SBM further increased the per-household latrine subsidy to Rs 12,000 (MDWS, 2017).

A 2018 survey conducted by r.i.c.e., a research institute for compassionate economics, and by Accountability Initiative (AI), at the Centre for Policy Research, confirms that, contrary to government claims (GoI, 2018), open defecation has not been eliminated from the north Indian states of Rajasthan, Madhya Pradesh, Uttar Pradesh and Bihar (Gupta et al., 2019). The 2018 survey, which revisited households from a 2014 survey, indeed, found the rapid latrine construction implied by the SBM budget figures mentioned here: 57 per cent of households that did not own a latrine in 2014 owned one

by late 2018. Combined with households that owned latrines before the SBM, the survey found that about 70 per cent of households in these states owned a latrine in late 2018. However, despite the rapid increase in latrine ownership, the survey found that open defecation is still between about 40 and 50 per cent in these four states. The open defecation that remains is in part because not all households own latrines, and in part because about a quarter of people who live in households that own latrines do not use them (Gupta et al., 2019).

Villagers have been rejecting government latrines for decades

The continuity of rural sanitation programme design over time and across governments is perhaps surprising. This is because some in government have long known that focusing on latrine construction alone is unlikely to be effective. Indeed, in 1956, the Ministry of Health convened a conference of social scientists and public health professionals to discuss how the government could reduce open defecation. The report that the Ministry released based on this conference considered the ‘*Social and Cultural Factors in Environmental Sanitation in rural India*’ [emphasis added]. In the Foreword, Secretary V.K.B. Pillai wrote that ‘[f]rom the biological standpoint the problem is fairly simple; to reduce gastro-intestinal disease by getting village people to use latrines. But changing human behaviour to meet this biological need is far from simple. It involves upsetting age-old habits and customs, since “going to the fields” is traditional’ (Ministry of Health, 1957).

The conference report details the failure of small-scale attempts to provide latrines to villagers. In a programme in Odisha, many families who had acquired latrines did not use them: Of the 59 families that were interviewed by a follow-up study, only about half were using the latrine at all, and only about 5 per cent were using it exclusively and regularly (p. 29). This programme’s experience was similar to that of another latrine programme in Singur block in West Bengal in the 1940s. Historian Sumit Guha describes the Singur programme in his essay ‘Health and Environmental Sanitation in Twentieth Century India’ (Guha, 2001, p. 160). Guha cites the report of the Environmental Hygiene Committee of 1949, which found that few of the latrines provided by the government to villagers were being used.

Decades later, researchers in Puri district of Odisha found that that children's health did not improve in response to construction of Total Sanitation Campaign latrines because few people used them (Clasen et al., 2014).

Sanitation and untouchability

Why have government latrines been rejected by villagers for at least the last seventy years? The social scientists at the 1956 Ministry of Health conference discussed many possible reasons, including the fact that villagers' beliefs about cleanliness and hygiene do not cohere with the germ theory of disease. They also pointed to the idea that, although villagers emphasize the cleanliness and purity of their homes and bodies, cleanliness of public spaces such as lanes and fields is not valued. Several conference participants mentioned that villagers see few benefits of latrine use.

The discussion at the 1956 conference also touched on another aspect of village life that is crucial to understanding rural sanitation outcomes today. In the words of Professor Karve, one of the conference participants, '[I]f we want to promote changes in the village we must recognize the importance of caste difficulties' (Ministry of Health, 1957, p. 119). Of particular importance in the 1950s was manual scavenging: In well-off households it was common for newly-married women and the elderly to defecate in or near the home, and for the faeces to be carried away by a person from a sweeper caste. This unsanitary practice endangered health of the whole village, especially of the sweepers. People from manual scavenging castes were considered the lowest among untouchables and suffered severe discrimination. The conference participants noted that as a result of economic exploitation and social exclusion many sweepers were leaving their work and migrating to cities. The participants resolved that additional attention to the situation of manual scavengers was needed, but they also opined that 'it would be nearly impossible to expect the high caste people to cooperate in the manual handling of faeces' (Ministry of Health, 1957, p. 115).

Data suggests that, although it still exists today, manual scavenging is not very common: The 2011 Census found that about 800,000 households, or less than 0.5 per cent, still use dry latrines

serviced by humans (Government of India, 2012b). Nevertheless, the fact that manual scavenging and the extreme social exclusion that accompanied it were common in rural India's past plays a crucial role in today's sanitation outcomes. To understand why, we need to understand how the latrines provided by the government work.

The government builds and promotes pit latrines, which consist of an approximately 50-cubic-foot hole in the ground, lined with bricks and covered with a cement slab. These latrines also have a latrine pan connected to the hole, with walls or curtains around the pan for privacy. Where they are used, these affordable latrines are a boon to public health. They have been used to greatly reduce open defecation and the diseases it spreads in low- and middle-income countries all around the world. For example, in rural Bangladesh, as of 2014, only 4.7 per cent of households defecate in the open, and 84.4 per cent of households use pit latrines (BDHS, 2014). Despite the success of pit latrines elsewhere, however, they are unpopular in India. The National Family Health Survey 2015-16 found that 55 per cent of rural Indian households defecate in the open, and that only 18 per cent use pit latrines (NFHS, 2016). When rural Indian households build their own latrines, they are more likely to build expensive latrines with large underground tanks.

Rural Indians tend to reject the affordable pit latrines promoted by the government, and which are used in other countries, because the pits, which fill up after a few years, require manual emptying. If managed properly, manually emptying a latrine pit can be safe and hygienic from a biological perspective. That is because when a full latrine pit is left to decompose for a period of six months to a year, the faeces turn into fertilizer, which is safer to handle than fresh sludge. For this reason, the government recommends that each household have two pits: While one is decomposing, the other can be used. Yet, as the conference participants pointed out in 1956, most rural Indians refuse to handle faeces; they see it as a task that only the sweepers can do. They believe that manually handling faeces would not only be degrading, but it would also result in their own social exclusion.

My research, with colleagues from r.i.c.e., finds that this view has changed little from the 1950s: Even when I or my research collaborators explain to villagers that emptying decomposed latrine pits poses little threat to their health, people are nevertheless extremely

concerned about the social consequences of handling faeces (Coffey & Spears, 2017). The fact that affordable latrine pits need to be emptied manually means that few in rural India are interested in having one.

The 2018 survey described above confirms that rural households in Rajasthan, Madhya Pradesh, Uttar Pradesh and Bihar still tend to practise open defecation until they invest in a latrine with a large tank or pit that is not emptied manually. The average cost of latrines that households built for themselves was Rs 34,000, which is far in excess of the Rs 12,000 subsidy, and implies investment in large pits or containment chambers. Further, those households that had small pits (likely because they had received contractor-constructed latrines) were least likely to use them: the survey found that about 40 per cent of Hindus with small latrine pits (around 50 feet) defecated in the open (Gupta et al., 2019).

The pace of decline in open defecation

Even if the government had not tried similar latrine construction programmes before opting for a construction-focused approach for the SBM, the programme's framers would nevertheless have done well to consider what could be learned from the available data on the rate of decline in rural open defecation. This also would have revealed the elimination of open defecation by 2019 to be an unrealistic goal, and might have resulted in a different programme design.

In 2001, the Census found that about 64 per cent of households did not own a toilet or latrine (Government of India, 2012a). Ten years later, the 2011 Census found that 53 per cent of Indian households—19 per cent of urban households and 69 per cent of rural households—lacked a toilet or latrine (Government of India, 2012a). This implies that the decline in the proportion of households lacking a toilet or latrine was slow between 2001 and 2011, at about 1 percentage point per year.

Newly released data from the National Family Health Survey (NFHS, 2016), which asks a slightly different question about sanitation than the Census, suggests that the pace of decline may have increased somewhat in recent years, but not by nearly enough to eliminate open defecation by 2019 (Coffey & Spears, 2018). The NFHS-4, conducted in 2015/16, found that 39 per cent of households—11 per cent of

urban households and 55 per cent of rural households—did not use a toilet or latrine (NFHS, 2016). This would imply a decline of about 1.7 percentage points per year since 2005/6, when the NFHS-3 found that 56 per cent of households in India did not use a toilet or latrine (NFHS, 2005).²

Data from r.i.c.e. and AI's late 2018 survey of Rajasthan, Madhya Pradesh, Uttar Pradesh and Bihar finds faster rates of decline in open defecation, of about 6 percentage points per year. However, in order to eliminate open defecation, the rate of decline would have to be 13 percentage points per year between 2016 (the end of the NFHS-4) and 2019. This is more than seven times the rate of decline implied by the NFHS-4 data (Coffey & Spears, 2018) and more than twice the rate of decline found in Rajasthan, Madhya Pradesh, Uttar Pradesh and Bihar. The difference between these observed rates of decline and the rate needed to eliminate open defecation by 2019 suggests that the SBM is very unlikely to end open defecation. It is clear that new policy and programme designs will be needed when the SBM expires in 2019.

Caste, coercion and accountability

Before drawing lessons for a post-2019 rural sanitation policy, it is useful to discuss three additional ways that the programme falls short in its efforts to improve sanitation. The first is that the SBM disregards the fundamental relationship between sanitation and caste. Although the programme is highly visible—the logo, Gandhi's glasses, has even been printed on currency—the sanitation workers who clean public places remain highly invisible. In a 2014 article published in *Economic and Political Weekly*, Anand Teltumbde points out that India is less clean than other countries not because people are poorer, but because of the caste ethos that relegates sanitation work to people who are considered untouchable (Teltumbde, 2014). Teltumbde explains

² The discrepancy between the 2011 Census figure of 53 per cent of households not owning a toilet or latrine and the 2005/06 NFHS figure of 56 per cent of households not using a toilet or latrine may be because the Census asks about latrine ownership and the NFHS asks about latrine use.

that '(upper-caste) people derive a sense of superiority in littering the place, expecting it to be cleaned by a lower-caste scavenger' (p. 12). Teltumbde argues that without addressing casteist attitudes towards sanitation workers, the SBM is unlikely to radically improve India's cleanliness.

Ravi Bathran, a scholar who researches manual scavenging, points out that the SBM has done little to change the fact that the Indian government frequently disregards its own rules and laws when providing public services (Bathran, 2015). For example, most toilets in the Indian Railways dispose of faeces on the tracks, rather than collecting the waste and disposing it of hygienically. The choice not to outfit train cars with waste-collection containers not only is dangerous to health, but also means that the government hires people almost exclusively from sweeper castes to clean faeces from the tracks. The government also hires sweepers to manually de-sludge drains and de-block sewers and pipes. All of these practices are banned under the 2013 Anti-Manual Scavenging Act. Yet, even the high-profile SBM has not made the necessary investments in machines and technology to prevent this work from being done by people.

Above, we discussed the need for manual pit-emptying as a reason why villagers reject the sort of affordable pit latrines that the SBM provides. Although our research suggests that these latrines are unlikely to be adopted on a large scale, it is nevertheless worth considering what would happen if they were. Bezwada Wilson, Magsaysay Award-winner and convener of the Safai Karmachari Andolan, warns that increasing the number of full latrine pits may also increase the demand for manual scavenging work, thus reinforcing the social exclusion and humiliation of manual scavengers (The *Hindu*, 2016).

These three omissions—failing to make provisions for latrine pit-emptying, failing to abide by the Anti-Manual Scavenging Act and failing to combat casteism against sanitation workers—are likely themselves enough to undermine the SBM. And yet, observations of the way the SBM operates in villages reveal another fundamental flaw. In short, where the SBM has tried to convince people to stop defecating in the open—rather than merely providing a latrine or latrine parts—local officials have used coercion and threats, rather than education and persuasion.

My own and my colleagues' observations in Rajasthan, Uttar Pradesh, Odisha, Madhya Pradesh and Bihar, as well as news reports from across the country, find that local officials frequently shame and harass people who defecate in the open. They blow whistles and the empty *lotas* of people who are going out to defecate. They threaten people with the loss of public benefits, such as pensions or PDS rations, if they do not build or use toilets. Among the more extreme reports of harassment include officials deploying drones to monitor fields in Haryana (The *Times of India*, 2016), and 'enforcement teams' making men who defecate in the open hand over their lungis (The *Indian Express*, 2017).

This coercion and harassment are reminiscent of the government's family planning programmes from the 1970s, when both men and women were forced to undergo sterilization, and local officials were given incentives to bring people to camps and clinics (Connelly, 2008). These family planning programmes are widely regarded as failures, both from a public health perspective and from a human rights perspective. The coercive tactics no doubt later hampered the government's ability to provide more humane family planning services, such as contraception, as well as efforts to provide maternal and infant healthcare (Jeffery, Jeffery & Lyon 1989). It remains to be seen what today's coercive tactics against people who defecate in the open will mean for future efforts to encourage latrine use.

There is certainly no *excuse* for coercive, humiliating or violent tactics. Yet, one *explanation* for why these strategies have played a large role in the government's efforts is that officials are under substantial pressure to eliminate open defecation by the 2019 deadline. This pressure matters not only for how local officials interact with the people they govern, but also for how the government collects and disseminates data. Until the recent release of the NFHS-4 there had been no credible national data on the proportion of households that defecate in the open since the 2011 Census.

Although the NFHS-4 data is an important resource for understanding progress towards the reduction of open defecation, the data nevertheless has an important weakness. The NFHS only asks about open defecation in the *household*, rather than asking each *individual* whether he/she defecates in the open or uses a latrine. This is important because many households in rural India have some

members who use a latrine and others who defecate in the open. Open defecation in latrine-owning-households is more common among people who own government latrines than among people who have built their own latrines (Coffey et al., 2014).

In principle, an independent sample survey commissioned by the government could assess the prevalence of individual-level open defecation. With colleagues from r.i.c.e., I have written about how to design and field such a survey (r.i.c.e., 2017). However, the official narrative that the government will eliminate open defecation by 2019 puts officials under pressure to show progress. So much is this the case that the credibility of government studies on open defecation (MUD, 2016; MUD, 2017) is at best questionable.

The next rural sanitation policy

As V.K.B. Pillai, Secretary at the Ministry of Health, wrote in 1957 that getting people in villages to use latrines is ‘far from simple’ (Ministry of Health, 1957). The attention that open defecation has received in recent years from the highest levels of government is laudable, but the SBM has unfortunately taken a simplistic view of open defecation. The approach of building latrines for households that do not have them has been tried and has failed before. This is because many villagers do not want to use pit latrines. People associate pits with manual scavenging and will not empty their own pits. With good reason, people from sweepers castes increasingly refuse to do this work (Coffey & Spears, 2017).

Seeing that the SBM did not learn from the Total Sanitation Campaign, the Nirmal Bharat Abhiyan, nor even the experiences of the 1950s, I wonder whether the next rural sanitation programme will learn from the SBM. At the end of our book, *Where India Goes*, Dean Spears and I discuss recommendations for future rural sanitation programmes. We argue that the next rural sanitation programme should set more realistic goals for reducing open defecation. Certainly, the government should aim to reduce and eventually eliminate this dangerous practice as quickly as possible, but we think that stating more realistic expectations would have several benefits. Reducing pressure on local officials to meet targets might reduce coercive tactics. It might also allow the government to commission careful,

independent surveys to credibly measure progress towards latrine use. Finally, it would give government and other organizations freedom to search for better strategies.

The truth is that we do not know how to promote the use of affordable latrines. The next rural sanitation programme should experiment with teaching people about how pit latrines work, and perhaps with professionalizing latrine pit-emptying services in accordance with the Anti-Manual Scavenging Act. If promoting pit latrines fails, the government might consider funding the construction of larger pits, which can be emptied infrequently or by machine. Above all, if we would like the next sanitation programme to bring us closer to a Swachh Bharat, both government and citizens must work to dismantle the caste ethos that is central to India's sanitation challenge.

References

- Alok, K. 2010. *Squatting with Dignity: Lessons from India*. SAGE Publications India.
- Bangladesh Demographic and Health Survey (BDHS). 2014. Data retrieved from: <https://www.statcompiler.com/en/>
- Bathran, R. 5 December 2015. 'First clean up the caste and sanitation equation'. *The Tribune*, <http://www.tribuneindia.com/news/comment/first-clean-up-the-caste-and-sanitation-equation/166815.html>
- Clasen T., S. Boisson, P. Routray, B. Torondel, M. Bell, O. Cumming, J. Ensink, M. Freeman, M. Jenkins, M. Odagiri, S. Ray. 30 November 2014. 'Effectiveness of a rural sanitation programme on diarrhoea, soil-transmitted helminth infection, and child malnutrition in Odisha, India: a cluster-randomised trial'. *The Lancet Global Health*, vol. 2, no. 11, pp. e645–53.
- Coffey, D., A. Gupta, P. Hathi, N. Khurana, D. Spears, N. Srivastav and S. Vyas. 2014. 'Revealed preference for open defecation'. *Economic and Political Weekly*, vol. 49, no. 38, p. 43.
- Coffey, D., A. Gupta, P. Hathi, D. Spears, N. Srivastav and S. Vyas. 2017. 'Understanding open defecation in rural India: Untouchability, pollution, and latrine pits'. *Economic and Political Weekly*, vol. 52, no. 1, pp. 59–66.

- Coffey, D., and D. Spears. 2018. 'Open defecation in rural India, 2015-2016: Levels and trends in the NFHS-4'. r.i.c.e. working paper.
- Coffey, D., and D. Spears. 2017. *Where India Goes: Abandoned Toilets, Stunted Development and the Costs of Caste*. HarperCollins.
- Connelly, M.J. 2008. *Fatal Misconception: The Struggle to Control World Population*. Harvard University Press.
- Dasgupta, S. 7 October 2012. 'Jairam Ramesh's remark on toilets and temples stirs controversy'. NDTV, <https://www.ndtv.com/india-news/jairam-rameshs-remark-on-toilets-and-temples-stirs-controversy-501100>
- Deshpande, V. 6 October 2012. 'Jairam Ramesh says toilets more important in India than temples'. The *Indian Express*, <http://indianexpress.com/article/news-archive/web/jairam-ramesh-says-toilets-more-important-in-india-than-temples/>
- Government of India. 2012a. *Census of India: Availability and Type of Latrine Facility 2001-2011*. Ministry of Home Affairs, http://censusindia.gov.in/2011census/hlo/Data_sheet/India/Latrine.pdf.
- Government of India. 2012b. *Census of India 2011: Households by Availability of Type of Latrine Facility (HH-8)*. Ministry of Home Affairs, <http://www.censusindia.gov.in/2011census/Hlo-series/HH08.html>.
- Government of India (GoI), Ministry of Drinking Water and Sanitation. 2018. 'Lok Sabha Unstarred Question No.1818, To Be Answered on 20-12-2018: Allocations and Utilisations under SBM-G.' <http://164.100.47.190/loksabhaquestions/annex/16/AU1818.pdf>
- Guha, S. 2001. 'Health and Environmental Sanitation in Twentieth Century India'. In Guha, S. *Health and Population in South Asia: From Earliest Times to the Present*. Orient Blackswan.
- Gupta, A., N. Khalid, D. Deshpande, P. Hathi, A. Kapur, N. Srivastav, S. Vyas, D. Spears and D. Coffey. 2019. 'Changes in open defecation in rural north India: 2014-2018.' *IZA working paper*.
- Hueso, A., and B. Bell. 2013. 'An Untold Story of Policy Failure: The Total Sanitation Campaign in India'. *Water Policy*, vol. 15, no. 6, pp. 1001-17.

- Jeffery, P., R. Jeffery and A. Lyon. 1989. *Labour Pains and Labour Power: Women and Childbearing in India*. Zed Books, 1989.
- Kapur A., and D. Deshpande. 2018. *Swachh Bharat Mission – Gramin (SBM-G) GOI 2017-18*. Accountability Initiative Budget Briefs Vol. 10, Issue 3.
- Kapur, A., V. Srinivas, P. Choudhury. 2016. *Swachh Bharat Mission – Gramin (SBM-G) GOI 2016-17*. Accountability Initiative Budget Briefs Vol. 8, Issue 2.
- Kapur, A., and S. Ibrahim. 2013. ‘From Outlays to Outcomes: Understanding the Status of Rural Sanitation Data, Accountability Initiative’. A document published for The State of Sanitation Project, Arghyam. Available at: http://www.indiawaterportal.org/sites/indiawaterportal.org/files/fromoutlaystooutcomes_understandingthestatusofruralsanitationdata_accountabilityinitiative_arghyam_consolidated_report_2013.pdf
- Ministry of Drinking Water and Sanitation (MDWS). 2017. ‘Guidelines for Swachh Bharat Mission Gramin’. Available at: http://www.mdws.gov.in/sites/default/files/Complete%20set%20guidelines_1.pdf
- Ministry of Drinking Water and Sanitation (MDWS). 2010. ‘Guidelines: Central Rural Sanitation Program’, Total Sanitation Campaign. Available at: <http://www.mdws.gov.in/sites/default/files/TSCGUIDELINESJune2010.pdf>
- Ministry of Health. 1957. ‘A Report on the Conference held at New Delhi on 10-11 September 1956, to Discuss the Social and Cultural Factors in Environmental Sanitation in rural India’. Government of India.
- Ministry of Urban Development (MUD). 2016. Swachh Survekshan. Available at: https://www.swachhsurvekshan2018.org/Images/SS_2016_report.pdf
- Ministry of Urban Development (MUD). 2017. Swachh Survekshan. Available at: https://www.swachhsurvekshan2018.org/Images/SS_2017_Report.pdf
- Munshi, N. 27 April 2012. ‘India’s latest scandal: down the pan’. *Financial Times*. Available: <https://www.ft.com/content/b2776199-791a-3d00-b529-7cb1fca48282>

- National Family Health Survey – 4. 2015-16. Data available at: <https://dhsprogram.com/what-we-do/survey/survey-display-355.cfm>
- National Family Health Survey – 3. 2005-06. Data available at: <https://dhsprogram.com/what-we-do/survey/survey-display-264.cfm>.
- Press Information Bureau. 18 February 2014. 'Construction of Toilets under Nirmal Bharat Abhiyan'. Government of India. Available at: <http://pib.nic.in/newsite/mbErel.aspx?relid=103876>
- Press Trust of India. 19 November 2013. 'India "missing" 3.75 cr toilets: sanitation activists'. *Business Standard*. Available at: http://www.business-standard.com/article/pti-stories/india-missing-3-75-cr-toilets-sanitation-activists-113111901310_1.html
- r.i.c.e. 2017. 'Survey measurement of open defecation in rural India'. r.i.c.e. policy brief. Available at: http://riceinstitute.org/policy_outreach/survey-measurement-of-open-defecation-in-rural-india/
- Shardal, S. 26 April 2012. 'Now, UP gets its Rs 2,900 crore Toilet Scam'. *The Times of India*. Available at: <https://timesofindia.indiatimes.com/city/lucknow/Now-UP-gets-its-Rs-2900-crore-Toilet-Scam/articleshow/12873670.cms>
- Teltumbde, A. 2014. 'No Swachh Bharat without Annihilation of Caste in EPW'. *Economic and Political Weekly*, vol. 49, no. 45.
- Special Correspondent. 23 August 2016. 'Who will clean the Swachh Bharat toilets, asks Wilson'. *The Hindu*. Available at: <http://www.thehindu.com/news/cities/Delhi/Who-will-clean-the-Swachh-Bharat-toilets-asks-Wilson/article14585219.ece>
- Editorial. 27 September 2017. 'No coercion, please'. *The Indian Express*. Available at: <http://indianexpress.com/article/opinion/editorials/swachh-bharat-mission-sbm-narendra-modi-sanitation-no-coercion-please-4862785/>
- The Indian Express*. 16 August 2014. 'Full Text: Prime Minister Narendra Modi's speech on 68th Independence Day'. Available at: <http://indianexpress.com/article/india/india-others/full-text-prime-minister-narendra-modis-speech-on-68th-independence-day/>
- Times News Network. 19 September 2016. 'Drones to shame Haryana villagers into toilets'. *The Times of India*. Available at: <https://>

timesofindia.indiatimes.com/city/chandigarh/Drones-to-shame-Haryana-villagers-into-toilets/articleshow/54399670.cms

Tiwari, R. 2 October 2014. '43% Govt toilets are missing or defunct in India. *India Today*. Available at: <https://www.indiatoday.in/magazine/cover-story/story/20141013-clean-india-modi-govt-toilets-missing-defunct-india-805413-2014-10-02>