

Open defecation: Manual scavenging's legacy in rural India

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"I have spent a whole lifetime doing manual scavenging. [Undoing her hair, she held it up to us and continued] It stinks. When I was young I used to be scared of undoing my hair. I used to think that the people sitting next to me would begin to smell the excrement. It had just been a week after my marriage when mother-in-law took me with her and made me begin this work. I remember how terrible my first day was. By the time we returned home I had thrown up at least ten times. I had never thought that I would have to do such filthy work. But this was what fate had in store for me...the punishment for being born in this caste." - Sharda, a manual scavenger in Delhi, quoted by Bhasha Singh in *Unseen* (2014), p. 38

"Discrimination against us still exists, it is not the case that it has gone away...If we go into [the Thakurs'] house, they will splash water in the places that we touched to make them pure." - a young woman in rural Sitapur district, Uttar Pradesh who belongs to the Valmiki caste. She was interviewed by Nikhil Srivastav in 2016 about the work she and her mother-in-law do in a Thakur home.

Much has been written about the pain and suffering of manual scavengers, both about the unpleasant and dangerous work of handling excreta, and about the severe stigma that makes the work so degrading and oppressive. Manual scavenging is caste-based work which has been handed down over generations, subjecting the same families and communities to deep humiliation, social exclusion, and poor health.

Here, we argue that the same casteist attitudes that relegate Dalits to the filthy work of manual scavenging are also at the root of many Indians' distaste for the simple pit latrines that the government is promoting in its campaign to eliminate open defecation. The association between handling feces and the social stigma that manual scavenging castes have borne for centuries means that most Indians today are unwilling to empty their own latrine pits/tanks. As more and more Dalits turn away from the humiliation of manual scavenging work, there are fewer people who are willing to empty a latrine pit, making open defecation seem like a better option for many households (Coffey et al., 2017). Without confronting and resisting the casteism that allows manual scavenging to persist, it will be difficult to make meaningful progress on tackling India's sanitation challenges.

What is manual scavenging, and how common is it?

Thirty or forty years ago, the most common type of manual scavenging was cleaning dry latrines in households. Dry latrines are places where household members defecate onto a flat slab or small hole. Manual scavengers, who are usually women, remove the excreta daily. They come discreetly to collect feces, by hand, in thatch baskets, and take the feces to the outskirts of the village for disposal. In the past, they did not receive wages in cash, but rather received leftover food, occasional grain, old clothes, and access to community land. Their employers, typically higher caste villagers, had more say in what they would receive as compensation than manual scavengers did.

The Prohibition of Employment as Manual Scavengers and Their Rehabilitation Act of 2013 defines manual scavenging as cleaning dry toilets, and prohibits hiring people to do this work. The Act also makes it illegal to hire people to clean septic tanks and sewers without protective gear. Several legislative acts prior to the 2013 Act have also prohibited manual scavenging, including the Protection of Civil Rights Act of 1955 and a 1993 law which outlawed hiring manual scavengers in some states. Unfortunately, the government has not enforced these Acts, and no one has yet been prosecuted for employing manual scavengers (National Crime Records Bureau, 2014). Commenting on the government's neglect of the issue, Human Rights Watch (2014) reported that "the Indian government has extended the time limit for ending manual scavenging at least eight times."

The 2013 Act also makes provisions for the rehabilitation of people engaged in manual scavenging. That is, it legislates funds to provide training to former manual scavengers to take up alternative forms of employment. Even though rehabilitation funds for former manual scavengers are available on paper, they are often difficult to access (Press Information Bureau 2015; The Indian Express 2017). Additionally, many manual scavengers don't know which schemes exist and what their rights are (Human Rights Watch, p.67-68).

It is important to note that the government has not accurately counted the number of manual scavengers and therefore, the number of people who should be eligible for rehabilitation. One way to gauge the number of manual scavengers would be to count the number of dry latrines: the Indian Census counted 8,00,000 dry latrines in 2011 (Coffey & Spears 2017). The National Family Health Survey-4 (NFHS-4) data implies that in 2015-16, 12,67,000 households used dry latrines. It is somewhat surprising that the 2015-16 number would be higher than the 2011 figure, but it is likely that both figures suffer from reporting bias. That is, these figures may underestimate the number of households that use dry latrines because people may not admit to using dry latrines in surveys.

Another way to measure the number of manual scavengers is with a survey or census that measures occupation. The 2011 Socio Economic Caste Census counted 182,505 households with at least one member engaged in manual scavenging in rural areas (Press Information Bureau 2015). However, even after the SECC, the Supreme Court continued to pressure the central and state governments to collect data on manual scavenging. A separate 'Survey of Manual Scavengers' was undertaken by the central government in 2013, but it only covered 3,546 urban towns. Citing differences between the number of manual scavengers identified through the survey versus the number of manual scavengers identified by the Safai Karamchari Andolan, a national movement working towards the eradication of manual scavenging, the Supreme Court has claimed that the government survey had identified "only a

miniscule proportion of the number of people engaged in manual scavenging” (Supreme Court of India, 2014). Further, in response to the 2013 Act, claims that someone was working as a manual scavenger were supposed to be verified by local authorities. As of November, 2015, 4,609 manual scavengers were identified in urban areas, and 7,617 in rural areas. This data comes from only 12 states and is clearly incomplete (Press Bureau of India 2015).

The lack of government data is just one reason why it is difficult to learn about manual scavenging: manual scavengers themselves are also reluctant to open up about their work because of the social stigma they face. They may reasonably fear a backlash from the people who employ them, or from police who harass them, since they often have the mistaken perception that is illegal to *do* manual scavenging work, rather than to *employ* manual scavengers. This makes manual scavengers and their struggles largely invisible.

Death from manual scavenging

Even though the number of dry latrines has declined over time, it is not necessarily the case that manual scavenging has declined. This is because the practice of manual scavenging persists in new forms that reflect India’s growing urbanization. The 2013 Act includes as manual scavenging the work of cleaning septic tanks, drains, gutters, sewers, and railroads without protective gear. This work has a number of health consequences, including exposure to noxious gases. Although no official count exists of the number of deaths from manual scavenging, news reports confirm that many manual scavengers die as a result of asphyxiation.

A recent news story (Singh 2017) about a man who lost his life while cleaning a septic tank in a Delhi mall illustrates the dangers that manual scavengers continue to face, and also the lack of regard for the plight of manual scavengers and their families. The man, whose name was Chandan, worked as a cleaner at a mall in Delhi. He was regularly asked to climb into septic tanks to clean or unblock them, without protective gear. He felt compelled to do this work for fear of losing his job. In 2016, Chandan suffocated on poisonous gases when he climbed into a septic tank. As part of the compensation to Chandan’s family, his employer offered his wife the same cleaning job. In an interview with Bhasha Singh, Chandan’s 9 year old son said that he aspires to “develop technology that will prevent humans cleaning gutters.” He perhaps did not realize that these machines already exist. It is a deep social failure that Dalits are still the ones doing this work and subjected to such conditions, when safer options already exist that could prevent such disasters.

Until Dalits are commonly considered equal citizens, individuals and governments are unlikely to be able to see manual scavenging as an urgent social justice problem. Bezwada Wilson, an activist who leads the Safai Karamchari Andolan, encourages each of us to think about the individuals who are doing this work: “When Dalit women are doing work like this, society never considers it inhuman or abnormal – we think that they are born only to do this and give them some money, it is enough...Citizens must realize it’s not acceptable to send someone down a gutter or a drain.” (Sripathi 2017)

The government as an employer of manual scavengers

Despite the law, much of the manual scavenging that happens today is paid for by the government. There is no exact count of the number of manual scavengers employed by the government, but it is well known that *safai karamcharis* are hired to clean the feces off of railroad tracks and to de-

sludge drains and septic tanks in cities and towns, without being provided protective gear or the machines that are used in sanitation work in other countries. When protective gear and machines for cleaning are not provided, manual scavengers are exposed to dangerous health hazards. Although written government policies outline a comprehensive list of protective measures (Manish & Singh 2017) to make cleaning work safer, such as the provision of masks, gloves, goggles, and boots, they are rarely given or maintained in practice (Xess & Zerah 2017). Investment in proper sewage systems is an important further step in eliminating manual scavenging in urban areas (Acharya 2015).

There is a recent trend towards the government hiring workers for cleaning on contract rather than employing them through permanent government jobs. Contract workers do not have to be counted as government employees, even though ultimately they do cleaning work for the government, are paid less, and are often not paid on time. And although other castes often apply for and secure cleaning contracts, it is often the case that only people from manual scavenging castes actually *do* the cleaning work (Human Rights Watch 2014, p.58). A contractor that the Human Rights Watch team spoke to explicitly said, “all of our subcontracted workers are from the Valmiki community—no other community would do this work. It is just not possible. If there is excrement to pick up, they [Valmikis] have to pick it up” (Human Rights Watch 2014, p.58).

The government’s continued use of human labor rather than machines demonstrates the lack of importance given to the plight of manual scavengers. And the lack of systems to manage fecal sludge on a large scale means that feces are often left in the open, in places where children can come into contact with them. This causes disease and child deaths, which, much like Chandan’s death in the septic tank, are largely invisible, except to those who are most directly affected by them.

Deaths from open defecation

India has extremely poor sanitation, even compared to poorer countries (Coffey et al., 2014). According to the WHO and UNICEF’s 2017 Joint Monitoring Program, at least 60% of the world’s open defecation happens in India (WHO & UNICEF 2017). The 2015-16 NFHS-4 found that 40% of all Indian households – which implies over 500 million people – defecate in the open. It is important to note, though, that the NFHS figure likely underestimates the number of *people* who defecate in the open, since it asks about household-level behavior, but research shows that some people who live in households that own latrines nevertheless defecate in the open (Coffey et al., 2014).

India’s widespread open defecation means that children are exposed to high concentrations of fecal germs in their environment. The danger of exposure to fecal germs is well-documented: ingesting fecal germs can lead to diarrhea, as well as to environmental enteropathy, a condition which changes the structure of a child’s intestines and decreases her body’s ability to absorb nutrients (Humphrey 2009). Additionally, open defecation spreads intestinal worms and parasites, and other infectious diseases like cholera and polio. These diseases can be fatal, especially in young babies whose immune systems are not mature enough to fight them off. Although it is difficult to precisely estimate how many children die due to open defecation in India each year, Coffey & Spears (2017) estimate that over 200,000 children under the age of 5, who would otherwise survive if there were no open defecation in India, die every year.

Exposure to fecal germs can also cause a child to be shorter than he or she would in the absence of intestinal diseases. Child height is a useful indicator of a child’s overall wellbeing because it is

cumulative measure of the amount of nutrition absorbed and exposure to and experience of disease. Spears (2013) shows that India's high rate of open defecation can statistically account for the high rate of child stunting in India. Open defecation has also been linked to poor cognitive achievement and lower wages, meaning that open defecation negatively impacts economic outcomes as well as health outcomes (Coffey & Spears, 2017).

Open defecation is particularly dangerous in India because it is one of the most densely populated countries in the world. Indeed, one in every six people in the world live in India, in an area that is only one-third as large as the United States. The effect of open defecation on infant mortality and child height is greater at higher levels of population density (Hathi et al., 2017) because where people live in such close proximity to each other, germs can spread more easily. Therefore, the germs from open defecation can affect Indians from many backgrounds, including rich and poor, educated and illiterate, urban and rural.

Why is there so much open defecation in India?

The caste system is an important institution in Indian society. Castes were traditionally occupation-specific. Although the link between caste and occupation has weakened in recent decades, castes are still associated with particular occupations and types of work. People from the lowest castes are expected to do the most menial tasks, and tasks that are considered dirty, such as cleaning feces and garbage, handling animal carcasses, preparing dead bodies for cremation, and cleaning after child birth. Engaging in these tasks justifies widespread oppression and discrimination against people from the lowest castes. The types of discrimination they face are wide ranging, and include not being allowed to share water sources, not being able to go into temples, not being allowed to sit down in front of higher caste individuals, and not being allowed to enter police stations (Shah et al., 2006).

Ideas about purity and pollution, rooted in a Hindu belief system, reinforce caste hierarchies. In particular, people from higher castes are considered to be more pure than people from lower castes. Further, lower caste people are themselves considered polluting, thus any interaction with them, such as eating food cooked by them or allowing them into one's home, is considered threatening to the purity of higher caste individuals.

People from Dalit castes are traditionally expected to do cleaning work. Though many Dalits do other types of work, people's association of Dalits with physically dirty tasks is used to justify the belief that Dalits are permanently polluted themselves and contagiously polluting to others. Those Dalits who do manual scavenging work are considered to be the lowest ranking, even among Dalits. They not only face discrimination from higher caste Hindus, but also from people from Dalit castes which did not traditionally do manual scavenging.

What do these ideas about purity and pollution have to do with open defecation? High caste Hindus try to maintain ritual cleanliness and purity by avoiding those things which are considered polluting. Prior research on sanitation in India has documented how many Hindus in rural India, consider latrines in the house, or near the house, to be polluting (Coffey & Spears, 2017; Coffey et al., 2017). For this reason, families in rural India dispose of their feces in one of two ways: they either build expensive latrines, with large pits that are rarely emptied, thus allowing them to avoid thinking about the accumulating feces. Or, for the vast majority who cannot afford to build an expensive latrine with a large pit, they defecate in the open.

The Indian government encourages people in villages to use affordable pit latrines, which are used in rural areas of other countries and which save lives by containing feces and keeping them away from children. For an average family, it would take approximately five years for the pit of a standard government latrine to fill up. According to government guidelines, after the pit is filled, a pipe should be used to direct the fecal contents of the latrine to a second pit. This latrine design is called the “twin-pit model.” In this type of latrine, the contents of the first pit are supposed to decompose into manure, while the family uses the second pit.

Emptying pits with decomposed feces, which is biologically safe, is not considered manual scavenging under the 2013 Act. However, most people believe that it would nevertheless be degrading work that only a person from a manual scavenging caste could do. Therefore, the pit latrines promoted by the government are considered unappealing to many people in rural India. The fact that people associate emptying a latrine pit with manual scavenging means that for families who cannot afford to build a large and expensive pit for their latrine, open defecation is often seen as preferable to latrine use.

Can technology address open defecation and reduce manual scavenging?

Today, the Swacch Bharat Mission is constructing millions of pit latrines in rural India. However, as Coffey & Spears (2018) show using 2015-16 NFHS-4 data, more than half of rural Indians report defecating in the open, demonstrating the difficulty in changing behavior at scale. Coffey & Spears (2018) also find that, among latrine owners, pit latrines are less common than septic tanks, illustrating Indians’ preference for large pits or tanks. This is because large tanks do not have to be emptied as often as the pit latrines promoted by the government. A recent Center for Policy Research study shows that when large tanks are emptied, the work, in both rural and urban areas, is still done by “informal service providers” who are Dalits from manual scavenging castes (Manish & Singh 2017).

Mechanization of sanitation work is often touted as a magic-bullet solution to ending manual scavenging in policy circles. However, a recent study about informal sanitation operators in Delhi (Xess & Zerah 2017) notes that the introduction of machines has not been able to eliminate manual scavenging because the machines cannot remove the fecal matter deposited at the bottom of tanks. Manual scavengers are expected to enter the tank and break the sludge manually. Higher quality machines could fix this problem, however, many of the machine owners who were interviewed were unwilling to invest in these more expensive machines. They also said that the activity of desludging can only be done by people from Valmiki, or manual scavenging, castes. Ultimately, whether or not machines will replace manual scavenging work is about caste attitudes and mindsets, which determine people’s willingness to invest resources in sanitation technology, and the government’s willingness to strictly enforce laws about it.

There is unfortunately very little conversation about how the latrine pits that the government is currently building will be emptied. Many Dalits are unwilling to do this work. For many, this is an act of rebellion against discrimination, part of a demand for being treated with respect. This resistance is important for social progress in India. But it also means that it will be difficult to find people who are willing empty a latrine pit/tank. Without a plan for pit/tank emptying, a latrine is only useful for a few years. What will be done with latrines after the pits are full? Can rural Indians be encouraged to use affordable pit latrines?

What does social attitudes research reveal about prospects for eliminating open defecation and manual scavenging?

We have shown that casteist attitudes and mindsets perpetuate open defecation and manual scavenging. For this, and many other reasons, it is important to measure and monitor these attitudes and mindsets. A new mobile phone survey, called Social Attitudes Research, India (SARI), has been collecting data on caste prejudice among representative samples of adults in several states in India. SARI's findings confirm what manual scavenging activists have long argued: Indian society suffers from deeply ingrained casteist attitudes (Coffey et al., 2018).

One form of explicit prejudice that SARI measures is untouchability. The practice of untouchability comprises many forms of discrimination that relegate Dalits to the lowest rungs of society's social and economic hierarchies. SARI asked non-Dalit Hindu respondents about whether they themselves practice untouchability, and about whether someone in their family practices untouchability. Table 1 shows the percent of people who said "yes" to that question, among men and women in different places in India.

Table 1. Percent of non-Dalit adults reporting that they or someone in their family practices untouchability

	female	male	all adults
all Rajasthan	62	45	53
rural Rajasthan	66	50	58
urban Rajasthan	50	33	41
all Uttar Pradesh	61	42	51
rural Uttar Pradesh	64	43	53
urban Uttar Pradesh	48	42	45
Delhi	39	27	33
Mumbai	n/a	21	n/a

Even in India's supposedly cosmopolitan metro cities of Delhi and Mumbai, large numbers of non-Dalits say that either they or someone in their family practice untouchability. The numbers from Rajasthan and Uttar Pradesh are particularly disturbing, with over half of all non-Dalit Hindu adults reporting the practice of untouchability. Numbers are lower in urban areas than rural areas, potentially due to the liberalizing force of urbanization. Women are more likely to report untouchability, which may reflect actual practice, or it may reflect less awareness of what is a socially acceptable response. These figures are perhaps surprising, considering that untouchability has been illegal for many decades. They are also likely an underestimate of the true fraction of people who practice untouchability, because some people may not have felt comfortable *explicitly* sharing their prejudices.

SARI is not the first study to explore untouchability. These results are reminiscent of Anant's (1975) study of high and low caste men in Delhi and Uttar Pradesh. Anant's research measured attitudes of non-Dalit towards Dalits in 1968, and again in 1972. Anant expected that attitudes would have become more liberal over time because industrialization and greater urbanization might bring greater contact among people from different caste backgrounds. However, he found that while some attitudes

had become more liberal over the five year period he studied, very little had changed when it came to attitudes towards personal interactions with Dalits, such as dining together and intermarriage. On the prohibition against non-Dalits sharing food with Dalits, which is a common untouchability practice, Anant noted that “it appears that the majority of the respondents still believe in the traditional ideas of pollution” (pg. 56). Unfortunately, many SARI respondents reported holding this type of attitude even today.

SARI also asked Dalits about their own perceptions of discrimination. In Delhi, 23% of Dalits reported that caste discrimination has actually gotten worse over the past 5 years, and in UP, 20% of adults said the same. In Rajasthan and Mumbai, SARI asked Dalit respondents how likely they thought it was for members of their group to experience discrimination in school, from police, and from government officials. Many Dalits reported that facing discrimination is likely. In Mumbai, where only men were interviewed, 47% of respondents said that it is somewhat or very likely that a Dalit in Mumbai would face discrimination from government officials, and 42% said discrimination in school is somewhat or very likely. 35% said discrimination by police is somewhat or very likely. In Rajasthan, where both men and women were interviewed, 53% of Dalit adults reported that it is somewhat or very likely that a Dalit in Rajasthan would face discrimination from government officials, 30% said discrimination in school is somewhat or very likely, and 40% said discrimination by police is somewhat or very likely.

The fact that the pace of change in social attitudes over the last 50 years has been slow is unsettling, as is the fact that many Dalits report that discrimination is likely. These results also cohere with the experiences of manual scavengers who try to find alternative employment. Several states have programs that are similar to plans for rehabilitation for manual scavengers outlined in 2013 Act. These programs extend loans to manual scavengers to give them capital to begin working in a different profession. However, prejudiced social attitudes can make working in a new job impractical, as a woman in Bihar described to journalist Bhasha Singh (2014):

“We know that this work is illegal, but the law won’t fill our bellies. We cannot do without manual scavenging. The government asks us to take loans, but one has to pay them off too. How will it be paid off? No one eats anything we touch, so what work should we do? Once I had opened a tea stall. No one came to have tea. Everyone said, ‘This tina-wali has lost her mind. Trying to become a Brahmin by opening a tea stall. Who will drink tea made by a manual scavenger? ...The heroine thinks that she can make tea and hide her caste, but it is written on your forehead and you won’t be able to wipe it off at least in this birth.’” (p.52)

Unfortunately, rather than being a relic of the past, belief in and the practice of untouchability is very much alive today. Indeed, it pervades many aspects of Dalit life, both public and private. As the government expends such vast resources and effort to fight the scourge of open defecation, it is essential that policy conversations begin to address the casteist attitudes that lie at the root of India’s sanitation challenge.

The way forward

India's slow progress on eliminating open defecation is inextricably linked with its history of caste and untouchability, as well as with the ongoing practice of manual scavenging. It is critical that manual scavenging and open defecation be addressed together: anti-manual scavenging advocates may want to call attention to the wider impacts of the practice through its relationship with open defecation. And, as a means to planning more successful programs to reduce open defecation, sanitation advocates should recognize the link between open defecation and manual scavenging, and speak openly about why people reject affordable pit latrines, and the stigma around pit-emptying.

A first step in eliminating manual scavenging is to recognize and respect people from the lowest castes, who have been made invisible, and whose poor treatment continues with impunity. The Indian government must enforce the 2013 Act, and take action against those who employ manual scavengers. Policies and the law are not implemented because Dalits are not considered equal citizens. Once people begin to believe this is true, the technology that is used in much of the rest of the world to carry away human waste will be commonplace.

Large scale toilet-building campaigns are unlikely to be successful in combating open defecation unless both the government and citizens recognize the deep casteism at the root of the continuing practice of manual scavenging, and how casteist notions of purity and pollution drastically reduce the chances of convincing the average Indian to use a standard pit latrine. Recognizing these realities and working to dismantle casteist mindsets will give all children in India a healthier and more just society in which to grow and thrive.

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