Sanitation policy in India – designed to fail?

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ABSTRACT
After three decades of disappointing experience with sanitation promotion, the Indian government launched the Swachh Bharat Mission (SBM) in 2014, with great fanfare and optimism. Yet SBM failed to live up to the expectations. This article argues that the dull outcomes are the result of design flaws in the program. The study finds that the goals of SBM are poorly chosen, with private sanitation services being prioritized over those which create public value in Indian context. Furthermore, SBM emphasizes financial and information tools while overlooking the regulatory and organizational tools and their synergies, which makes it nothing more than a poorly designed conditional cash transfer scheme. The design approach employed in the article not only opens the black box of sanitation policy tools but also generates valuable recommendations to guide sanitation policy in developing countries.

1. Introduction

The importance of sanitation for personal and social wellbeing, has been known for more than a century, yet more than two billion people globally, do not have access to basic sanitation facility (UNICEF 2020). Of them, more than one-fourth defecate in the open, creating serious public health challenges. Despite calls to recognize sanitation as a basic human right and its established linkage to human development in the sustainable development goals (SDGs), progress has been slow in developing countries, especially in South Asia and Africa.

Of the over 2 billion people without basic sanitation, more than 732 million are in India (Water Aid 2017).1 Unsurprisingly, India has the highest rate of stunting and wasting in the world, caused by poor sanitation (Coffey and Spears 2018; Banerjee and Dwivedi 2020). In 2017, about 150,000 Indian children under the age of five, died due to diarrhea, of which sanitation is an important determinant (Dadonaite, Ritchie, and Roser 2018). Poor sanitation costs India 6% of its’s GDP (World Bank, 2011).
While low income and large population make the problem challenging, China achieved basic sanitation and hygiene for majority of its citizens by 1980, despite similar socio-economic indicators (World Bank 1980, 57) (Kedia, Wang, and Liu 2020). Currently, Bangladesh, with even lower per capita GDP than India, is marching ahead (Coffey and Spears 2017).

Although alluded to in government documents, sanitation policy was concretized only in 1986 with government’s Central Rural Sanitation Program (CRSP). When CRSP failed, the Total Sanitation Campaign (TSC) was launched in 1999, to provide “sanitation for all” by 2012. However, TSC, like CRSP, remained ineffective, demonstrating no significant improvement in child health (Patil et al. 2014). The government even concealed its failures with false reports of significant progress (Hueso and Bell 2013). TSC was renamed the Nirmal Bharat Abhiyan (NBA) in 2013 and then SBM in 2014. This history alerts the reader that name changes are not synonymous to changes in policy content.

Narendra Modi, India’s prime minister in 2014, declared his government’s utmost commitment to sanitation. He pledged separate toilet facilities for girls and boys in every public school and a toilet for every household within five years. He also significantly increased the much-needed fund allocation to rural sanitation (Mehta 2018). Considering the dismal achievements of the previous sanitation policies, these goals at first glance, were ambitious.

Previous research has unearthed factors for failure of the earlier sanitation policy. Focusing on demand, one study argued that political will, proximate social pressure and political ecology, significantly influence individual demand for toilets in rural India (O’Reilly and Louis 2014). Apart from contextual factors, when faced with a choice between durable goods (e.g. a motorbike) and toilets, households choose durable goods, and Banerjee, Banik, and Dalmia (2017) suggest education and public awareness about better sanitation practices, especially among women, to improve demand for toilets.

Engaging with literature on the behavioral aspects of sanitation uptake, Ching (2020) argues that open defecation might be part of individual’s “green” identity, limiting uptake of toilets despite higher satisfaction with toilet usage. Similarly, multiple studies show that gender norms might limit the ability of women in India to secure private sanitation facilities, despite their high demand given safety and hygiene concerns (Sahoo et al. 2015; Caruso et al. 2017; Khanna and Das 2016).

However, Jain et al. (2020) highlight that lack of demand for safe sanitation should not be confused with a preference for open defecation. Demand can be low because of inadequate subsidy, poorly designed subsidy distribution, or trust deficit in government programs, and not necessarily because of low awareness (Jain et al. 2020).

Demand aside, gaps between policy objectives and policy implementation affect the supply. Hueso and Bell (2013) argue that TSC’s limited achievement was the result of malalignments between the key actors’ motivations (e.g. misdirected accountability), cognition (e.g. lack of training), and power (e.g. decentralized governing system). Like TSC, NBA failed because it continued to remain government-led, subsidy-based, infrastructure-centred, and supply-focused, instead of being community-led, incentive-based, people-centred, and demand-driven (Hueso and Bell 2013).

The literature review indicates that while there is research on sanitation in India, none systematically analyze it from a policy design perspective. Specifically, there is no study on the design of the Swachh Bharat Mission (SBM) and the policy tools
employed to implement it. Poor sanitation is, in essence, a policy problem which will benefit from the policy design framework employed by public policy scholars.

Policy design is a process of conscious and systematic effort of picking and packaging policy tools with the aim of solving a policy problem or at the least reducing it (Howlett and Rayner 2013; Howlett 2014). The specific “policy tools” employed to achieve policy goals are a key determinant of the policy’s effectiveness (Howlett 2014; Hood 2007, 133–137; Hood 1983; Salamon 2002) (Capano and Howlett 2020). These tools have intrinsic characteristics which make them synergistic or non-synergistic with other tools and thus their mixture matters for the success of the policy (Howlett and Rayner 2013; Howlett 2014). Also called “policy instruments” or “governance tools”, this tools perspective has been applied to various fields, ranging from healthcare to crime prevention (Howlett, Ramesh, and Perl 2020; Bali and Ramesh 2015).

The aim of this article is thus to analyze the SBM from a policy design perspective. It first analyses if the goals of SBM are appropriate and then evaluates the suitability of tools. The central argument of the article is that SBM’s goals are poorly chosen, focusing on private sanitation services rather than those which create public value. Furthermore, to achieve its goal, SBM emphasizes financial and information tools while overlooking the regulatory and organizational tools and their synergies. The article is based on a critical analysis of government documents but also uses news reports, journal articles, videos by government agencies, and other relevant material.

2. SBM: policy design

2.1. Policy goals

The “immediate objective” of SBM Phase I (2014–2019) was “to improve sanitation coverage and make India open defecation free”. The program’s “intermediate objective”, on the other hand, was to “promote sustainable sanitation practices, develop community-based solid and liquid waste management systems and set-up rural sanitary marts for manufacturing and marketing low-cost hardware” (Ministry of Drinking Water and Sanitation 2017a, 2017b, 2017c). Seeking to develop community-based waste management and production systems in the intermediate-term after the problem of open defecation has been eliminated in the immediate term, is an unusual action plan.

Under SBM, the government provides each household in rural India a cash transfer of 12,000 INR, for private latrine construction, with 60:40 sharing ratio between union and state governments. For urban households, the union and state government provide 4500 and 2500 INR, respectively. In total, the government promised 13–18 billion USD of spending over five years on SBM (Mehta 2018).

A small percentage of overall funds go to building toilets in schools (10.7%) and nurseries (anganwadis) (0.3%) (Ministry of Drinking Water and Sanitation 2017a, 2017b, 2017c, 32). The government also aims to end open defecation through public awareness campaigns (8% of total program cost) and community sanitary complexes (2% of program cost) in addition to providing cash for private facilities.

Despite lackluster performance in SBM Phase I-as the following discussions will show-the SBM Phase II (2020–2025) has already shifted the goals of the program to management of bio-degradable waste from cattle and agriculture, plastic waste
management, safe solid and liquid waste disposal and maintenance of ODF status (Ministry of Jal Shakti 2020). SBM Urban has also shifted focus to garbage disposal, fecal sludge, and wastewater (e.g. from kitchens) management and more public awareness (Ministry of Housing and Urban Affairs [MoHUA 2021b]).

2.2. Policy tools

Policy tools, for analytical clarity, are classified as informational, regulatory, financial, and organizational based on the resources they use for actualization (Hood 1983). To be effective, policy tools should fit the task and explain how their use would achieve the desired results. Complex problems use numerous tools and hence how these tools work together is more important than their individual usefulness (Howlett, Ramesh, and Perl 2020).

Informational tools provide information to the target group to change their behavior in the desired manner. The government must enjoy trust among the target group to elicit compliance with the information provided (Howlett, Ramesh, and Perl 2020; Tolbert and Mossberger 2006). Regulatory tools, in contrast, are sanctions requiring the desired behavior or prohibiting undesired behavior on the part of the target population. Regulatory tools are easy to adopt but hard to deploy because they require a high level of capacity to monitor and enforce and must be legitimate in the eyes of the receiver (Howlett, Ramesh, and Perl 2020).

Financial tools are transfers like taxes or subsidies that discourage or encourage a behavior. Subsidies are attractive, even in resource-scarce countries, because they create incentives for recipients to avail them. This perhaps explains their widespread use, regardless of their appropriateness or financial need of the receivers (Howlett, Ramesh, and Perl 2020). Organizational tools use governmental, non-governmental, or private institutions and personnel to achieve a desired policy objective (e.g. public schools), and their effectiveness depends on government’s fairness and competence in providing that service (Howlett, Ramesh, and Perl 2020). Table 1 shows the policy tools used by the SBM.

| Table 1. Policy tools under the SBM. |
|--------------------------------------|
| Information tools                    |
| • Technical support to state governments for their Information, Education, and Communication (IEC) policy |
| • Nationwide public awareness campaign (Darwaza Band Campaign) |
| • National Annual Rural Sanitation Survey (NARSS) by an independent agency |
| • Village Swachhta Index which contains real-time information on construction and maintenance of toilets |
| | Regulatory tools\(^a\)                  |
| • State-level laws requiring local bodies to maintain sanitation. |
| • Environmental and public health laws dealing with sanitation (e.g. prevention of pollution under the Water Act 1974). |
| • Court orders regarding sanitation (e.g. the recent Supreme Court judgment on manual scavenging). |
| • Monitoring and evaluation systems (e.g. progress reports, management information systems (MIS), etc.) |
| | Financial tools                           |
| • Joint subsidy from center and state to households for building toilets |
| • World Bank funding to incentivize ODF sustainability |
| • Swachh Bharat Kosh (Clean India Fund) for renovation and repair of defunct toilets |
| • Priority funding for piped water supply in ODF villages |
| | Organizational tools                     |
| • SBM is implemented by state governments, with districts as main unit of implementation |
| • 600 Swachh Bharat Preraks (Clean India Motivators) selected by Tata Trust for assisting the district collectors |
| • 150,000 Swachhagrahis (sanitation volunteers) for every village to create momentum for the policy |

\(^a\)Regulatory Tools adopted from Cullet and Bhullar (2015).
3. Program performance

Between 2014 and 2020, the government spent about 570 billion INR (apprx. 8 billion USD) and claims to have built more than 100 million toilets in rural areas (Table 2). In urban areas, the government has spent about 100 billion INR. The total money spent on SBM is less than half of the initially announced amount of 1340 billion INR (Jacob 2015).

The MoHUA claims to have built more than 6 million household toilets and 0.6 million “community toilet seats” under the SBM until 2020 (MoHUA 2021a, 24). MoHUA also claims that urban areas in 35 states and urban territories are ODF. Similarly, the MHRD claims to have built 417,796 toilets in 261,400 government schools under the “clean schools initiative” (Swachh Vidyalaya Mission) (Ministry of Human Resource Development 2018). Overall, the government’s latest report claims that India is ODF and rural sanitation coverage has reached 100% (Ministry of Jal Shakti 2020).

There are strong reasons for skepticism about government’s claims. As early as in July 2018, the Standing Committee of the parliament on rural development concluded (Standing Committee on Rural Development 2018) “sanitation coverage claimed by the ministry was on paper and the actual progress at the ground level is lethargic”. Another study conducted in late 2018 in four northern states (Bihar, Madhya Pradesh, Rajasthan, and Uttar Pradesh) reported that although rural latrine ownership had gone up, a conclusion similar to that of the World Bank (2020), open defecation remained common in these states, despite their ODF status (Gupta, Khalid, Desphande, et al. 2019).

The study found that 50% of the population in these states defecated in the open, indicating no improvement. It also found that the proportion of people who owned a latrine before SBM but did not use it, remained the same in 2018 (Gupta et al. 2019, 9–10). Many news reports and other studies also report similar issues (Mahaprashasta 2019; Mohan 2017; Abraham et al. 2018). Overall, the available data shows that SBM’s achievements are lackluster and patchy and certainly do not inspire confidence that the country is anywhere close to being ODF.

4. Discussion: policy goals and tools

The next section generates valuable insights into the program’s performance based on the reflexive assessment of the available performance data and relates them to the design and policy tools of SBM.
4.1. SBM: policy goals

To succeed, the goals of a policy must, at the minimum, be clear and realistic. To seek to “immediately” end the practice of open defecation among more than half a billion people shows the policymakers’ detachment from policy realities. This is akin to previous Indian governments’ policies to “end poverty” or provide health and education to “all”, which make good campaign slogans but are unhelpful as policy guidance.

India’s sanitation problems are similar to those in other countries, yet there are distinctly local conditions which must be taken into account. To be effective, a policy must eliminate or at least mitigate these key conditions that affect its performance.

First, poverty affects sanitation practices (Khanna and Das 2016; Ching 2020) and despite poverty reduction, more than 50% of India’s population is poor, based on USD 3.20/d poverty line (World Bank 2020). Constructing and maintaining a toilet requires substantive time, effort, and money, which most Indians cannot afford. For instance, construction of a rural toilet can cost up to 40,000 INR (550 USD approx.) which many would not be able to pay despite government subsidy of 12,000 INR (Gupta, Khalid, Desphande, et al. 2019).

Second, in countries with high gender inequality, women are not given decision-making power, despite them placing a higher value on sanitation for reasons related to safety and privacy (Sahoo et al. 2015; Caruso et al. 2017; Khanna and Das 2016). As a result, the actual private demand for sanitation might remain low (Doron and Jeffery 2014, 75–76).

Third, the beliefs and practices around the caste system are a major barrier to safe sanitation and hygiene practices (Coffey and Spears 2017; Gatade 2015; De and Nag 2016; Sharada Prasad and Ray 2019). For instance, the Indian government has been promoting twin-pit simple latrines, which must be emptied every 4–5 years (depending on family size). However, rural upper-caste Indians do not want to use it because they believe that emptying latrines is the job of low-caste individuals (Doron and Jeffery 2014, 73–74). In contrast, the demand for simple pit latrines is significantly higher in the Muslim community, where the caste system is not as entrenched (Doron and Jeffery 2014, 73–74).

Fourth, housing ownership and tenancy systems directly affect sanitation. More than 55% of Indians do not have any land, which hinders toilet construction (Doron and Jeffery 2014, 73). Many low-income households do not have the space to construct a toilet even if they have a “house” as defined by the government.3 Landlords too refuse investment in sanitary facilities due to lack of monetary incentive or legal obligation. Tenants, like migrant workers, lack bargaining power vis-à-vis landlords, because of short length of stay and lack of a collective voice (Scott 2013).

These problems are more severe for over 100 million citizens living in slums or 1.7 million without “houses”, as measured by 2011 census (Kumar 2014).4,5 This number is much larger if the narrow definition of homelessness is expanded, for instance, to include people who live in their places of work.6

Sixth, sanitation is a part of a larger physio-economic context – such as water, rural development, city planning, urban slums, etc. (Lenton 2005, 84) – which in India is unsupportive.7 For instance, even the pour-flush twin-pit latrines recommended by the government need 1–4 l of water per use (Reed 2014). But 84% of Indians do not have
piped water supply (Niti 2018) and many struggles daily to meet their water needs (Abraham et al. 2018).8

Once the target population has been identified and the policy context understood, policymakers need to specify the sanitation needs they will meet and support. Sanitation may be divided into “public” and “private” components. The public component is the sanitation infrastructure (sewerage lines, public toilets, solid and liquid waste management, etc.), whereas the private component is the in-house facilities used by the residents.

It is a strong though controversial argument that the government’s commitment should be primarily to the public component, with the private component left largely to households. The Indian context discussed above suggests that for SBM to be effective, low income, low caste, landless, and migrant workers, especially women, must be government’s priority, which is not possible by subsidizing private latrines.

The government only prioritizes early fund disbursement for above-mentioned groups (Ministry of Drinking Water and Sanitation 2017a, 2017b, 2017c, 17) and even these espoused guidelines are reportedly not adhered to, with low-income, low-caste individuals regularly unserved (Abraham et al. 2018). Moreover, it does not tackle their substantive problems (e.g. land unavailability, lack of access and unaffordability of water, gender inequality, migration, community marginalization, caste system, etc.).

Lenton (2005, 86) recommends that governments should subsidize elements of sanitation systems – such as trunk infrastructure, public toilets, environmental infrastructure, etc. – because it provides greater public than private benefit. They warn that countries (e.g. Indonesia) investing in household-level sanitation service (e.g. pour-flush latrines, septic tanks, etc.), found it difficult to move to the next level of public sanitation infrastructure (Annexure 2, Supplementary file) and waste in such countries is disposed unsafely.

Hence, from a public policy perspective, the SBM’s approach to funding individual household toilets is misplaced. While sanitation is a public good which merits public investment, the government should maximize public value, rather than funding one-time construction of private sanitation facilities which largely increase the private benefit for those who can build and maintain it.

4.2. SBM: policy tools

Apart from selecting context-based program goals, policies also require appropriate tool choice. This section analyzes how tools by themselves, and in coordination with others, facilitate or hinder the success of SBM (refer to Table 1).

4.2.1. Information tools

SBM acknowledges the importance of behavior change and recommends use of suasion or exhortation (Howlett, Ramesh, and Perl 2020, 145–146). Since the beginning of the campaign, the government has emphasized the need for demand creation through communication. Nationally, the union government-contracted public figures (e.g. Bollywood actors) to persuade citizens to construct toilets. It also mobilized religious
leaders through the Global Interfaith WASH Alliance (GIWA) to support SBM. Overall, 8% of the total program costs are dedicated to IEC.

In the middle of the campaign, the union government also noted that “In general, it has been observed that despite the centrality of IEC in Swachh Bharat Mission, states have not given adequate attention to the behaviour change through IEC”. And hence, it imposed a condition that states need to spend a certain proportion of the budget allocated for IEC within a given time period, to be eligible for further funding (Ministry of Drinking Water and Sanitation 2017a, 2017b, 2017c, 2). It also introduced initiatives such as NARSS and Village Swachhta Index to assess outcomes and ‘evoke a competitive spirit’ among jurisdictions.

However, despite its centrality to SBM and the union government’s continued emphasis, the CAG reports show that states like Punjab, Haryana, Uttarakhand, Rajasthan, Telangana, and Odisha, did not utilize majority of their IEC funds (Comptroller and Auditor General [CAG 2017a, 2017b, 110–120; CAG 2017c, 51–58; CAG 2018a, 101–107; CAG 2017e, 101–102, CAG 2018b, 62–73]). One consequence of this lapse is that only a small share of households, especially in rural north India, uses the twin-pit latrines. Most program beneficiaries either use single-pit or large containment chambers (Gupta, Khalid, Desphande et al. 2019). Those that have twin-pits latrines, use the two pits at the same time, undermining safe management of fecal sludge (Gupta, Khalid, Desphande, et al. 2019; Dasgupta, Agarwal, and Mukherjee 2021).

Along with low usage of IEC funds, trust deficit in government sanitation policies due to past failures, also inhibited compliance by citizens (Abraham et al. 2018; Jain et al. 2020). This trust deficit grew larger when illegal coercive practices (e.g. withholding welfare entitlements, public shaming) were used by local governments (Gupta, Khalid, Desphande, et al. 2019; Jacob, Natrajan, and Ajay 2021), due to lack of laws on open defecation. Expecting individuals to change their behavior with regards to a private intimate activity like sanitation, without building trust and rapport is an ineffective approach.

Finally, new initiatives like the NARSS and Village Swacchta Index had overlapping objectives with the National Sample Survey (NSS) and the National Family Health Survey (NFHS), which already collect needed information (toilets built, toilets in use, etc.). Multiple evaluations can help cross-check claims, but non-standardized data add to confusion, as is the case in rural sanitation statistics (Kumar 2015).

Rather than additional ex-post surveys, SBM needed ex-ante creation of complete and updated list of beneficiaries at the local level. Reports of the CAG of India, show that Haryana, Uttarakhand, Gujarat, Jharkhand, and Odisha did not update their beneficiary list and used data from 2011 Census instead (CAG 2017b, 110–120; CAG 2017c, 51–58; CAG 2017d, 42–46; CAG 2016; CAG 2018b, 62–73). This led to denial of benefits to many and inattention to defunct toilets. Overall, we see that while the government emphasized the use of information tools, it was not effectively used.

4.2.2. Financial tools
The use of financial tools is appealing, and the Indian government is also lured by it. The government spent about 2.3 billion USD on the TSC over twelve years
(1999–2012) and about six times as much on SBM (Mehta 2018). For SBM-rural, each household, is entitled to receive 12,000 INR post latrine construction, with 60:40 sharing ratio between union and state governments. For SBM-Urban, the union government and state governments provide 4000 INR and 2500 INR per household, respectively.

The government’s emphasis on financial incentive for private latrine construction is evident in its dedication of the largest portion (60%) of SBM budget to it (Mehta 2018). To finance SBM the union government not only used its tax pool but also imposed a new service tax of 0.5%, called the Swachh Bharat Cess, levied between 2015 and 2017 (Mehta 2018). Additionally, it also roped in the World Bank to provide financing to districts that remained ODF and created the Swachh Bharat Kosh to mobilize funding from private companies and state-owned enterprises.

Despite increased funding, significant issues remain with this tool. First, as argued before, 12,000 INR is insufficient for a rural household to build a toilet, especially because the beneficiary receives the money on a reimbursement basis (Gupta, Khalid, Desphande, et al. 2019). Secondly, a lower subsidy to the urban poor (6500 INR) than the rural poor (12,000 INR) seems unusual, given that costs of toilet construction are higher in urban areas. For instance, the Odisha government in its own report estimated that an urban toilet would cost INR 30,000, but provided only between INR 5300 and 8000 (CAG 2018b, 62–73). Thirdly, the government provided the same amount to all households. Therefore, even in specific instances when public financing of private toilets is considered necessary, the financial tool falls short of expectation.

Using this financial tool, the government has shifted all the burden of infrastructure creation, operation, and management to the public. This is extremely difficult given the lack of space, time, information, skills, additional financial resources, and water, especially in rural areas.

4.2.3. Organizational tools

Behavioral change requires government agencies to understand the nuances of behavioral science and the ability to apply it to their local context (Hathi, Spears, and Coffey 2016). Agencies responsible for SBM – the public health and engineering departments – require substantial training before they can even design or execute behavior change policies (Pattanayak et al. 2009). However, the lack of such capacity has led states to resort to usual information dissemination (e.g. using wall murals), rather than effective suasion through engagement (Fourthlion 2015).

In fact, even in developed economies these departments never deal with behavior change (Doron and Jeffery 2014, 76). Their expertise is in providing universal public sanitation infrastructure to support the behavior change achieved through other channels (e.g. school education) (Lenton 2005, 83).

The union government recommends that districts should be the unit of implementation and each district should prepare a plan which should include the following:

The DSP [District Swachhta Plan] exercise should include establishing the baseline status, scope of work for making the district ODF, timelines, arrangement for implementation of behavior change initiatives and construction of toilets. Capacities
needed to undertake the task should be ascertained and reflected. Plan and arrangements for important tasks like demand generation, choice of technology, construction supervision, geotagging of toilets, conversion of insanitary to sanitary toilets, making defunct toilets functional, verification of ODF declared villages etc. are to be indicated in the District Swachhta Plan. (Ministry of Drinking Water and Sanitation 2017a, 2017b, 2017c, 5).

The critical question is whether districts have the capacity to develop and execute the above actions. Merely layering interventions by adding temporary personnel like Swachh Bharat Preraks (Clean India Motivators) and Swachhagrahis (Sanitation Volunteers), without thinking about needed organizational change, is of little use.

A study in Karnataka, India, found that lack of operations, management budget and planning, and low level of technical support hindered SBM’s success (Davis, Javernick-Will, and Cook 2019). In fact, the CAG reports show that lack of needed personnel negatively affected fund utilization rates, creation of beneficiary lists, speed of verification of beneficiary claims and fund disbursement, and creation of implementation plans in several states (CAG 2017a; CAG 2017b, 113; CAG 2017c, 51–58; CAG 2018a, 101–107; CAG 2016, 2018b, 62–73).

Public toilets have been the biggest losers of this low emphasis on organizational tools. The states of Haryana, Uttarakhand, Gujarat, Telangana, and Orissa, all report either no construction of public toilets or highly inadequate number of public toilet provision (CAG 2017b, 113; CAG 2017c, 51–58; CAG 2017d, 42–46; CAG 2017e, 101–102; CAG 2018b, 62–73).

Merely issuing orders and setting deadlines for toilet construction are insufficient. There is a need to think critically of the human resource needed to operationalize the policy, with a special focus on frontline public officers (e.g. sanitation workers) who interact directly with citizens. The policy should also spell out the operational goals like checks on toilet usage rates, water availability, type of toilets constructed, etc.

Organizational tools require legwork and high managerial capacity, and the Indian government has made limited and ineffective use of it. The SBM uses the same organizational design as was used in previous policies (Davis 2004; Hueso and Bell 2013; Hueso et al. 2018) despite its deficiencies. State governments with a history of poor performance in sanitation, have barely invested in capacity enhancement (CAG 2017c, 51–58; CAG 2018a, 101–107; CAG 2017e, 101–102). They avoid recruiting the required sanitation officers and use whatever front-line bureaucracy they have, irrespective of their ability to implement policies (Gupta, Khalid, Desphande, et al. 2019, 14). These officials then equate ODF to latrine construction (Gupta et al. 2019), vindicating the argument that narrow policy targets lead to neglect of more important but hard to measure dimensions, such as equity and sustainability (Bevan and Hood 2006; Gupta, Khalid, Desphande, et al. 2019, 15).10

It is a popular argument to suggest the use of private and nonprofit actors to fill this gap (Carrard et al. 2009; Abramovsky, Augsburg, and Bancalari 2019). And indeed, such actors have played important role in improving sanitary conditions in different pockets of the world (e.g. increasing trust in government policies).
However, these arguments must be qualified. When government transfers key responsibilities (e.g. behavior change) to civil society organizations or the private sector, they still require high policy capacity to achieve its objectives through these new agents (Kekez, Howlett, and Ramesh 2018). For instance, contracting out requires high policy capacity to design tenders, elicit interest, evaluate bids, negotiate contracts, monitor performance and enforce contracts at local levels. Therefore, a critique of government capacity and poor policy design should not be confused as an argument for outsourcing.

4.2.4. Regulatory tools

Regulations are important policy tools. First, they ensure that those who cannot access sanitation services by themselves (e.g. homeless, migrants, etc.), are catered through mandatory public provision, thus ensuring equity. Second, since sanitation has huge positive externalities and hence is undersupplied by the market, regulations correct for this market failure.

Third, poor sanitation impacts long-term health (e.g. stunting, reduced mental faculties, and earnings, etc.). Households do not realize these internalities and invest lower than optimum, even if they have the resources (Madrian 2014). Such households might also ignore the negative externalities of their unhealthy sanitation practices on others. Therefore, governments can, through regulation and its combined use with other tools, ensure adequate public, and private provision of toilets.

However, like the organizational tools, regulatory tools are not emphasized in SBM, and where present, are not effectively calibrated. First, the union government has no legislation which defines sanitation or identifies general principles applicable to sanitation. Therefore, it uses soft legal tools like administrative directives and policies, and financial management tools (e.g. line-item budgeting) to nudge implementing agencies to act in line with its objectives (Cullet and Bhullar 2015). The government policy documents also skip over the duties of the Urban Local Bodies (ULBs), the only institution legally responsible for sanitation.

Second, the union government relies on the management information system (MIS) and the reporting and evaluation requirements, suggested in SBM. However, state governments of Haryana, Uttarakhand, and Odisha did not constitute any taskforce to carry out the monitoring, evaluation, and reporting of the progress of SBM (CAG 2017b, 110–120; CAG 2017c, 51–58; CAG 2018b, 62–73) Similarly, MIS was not effectively developed or used in many states. For instance, in Odisha, the CAG found that the web portal developed by the National Informatics Center (NIC) did not have the required fields (e.g. date of approval of incentive, amount of incentive, etc.) for data entry (CAG 2018b, 62–73).

It is not surprising then, that numerous states (Punjab, Haryana, Uttarakhand, Gujarat, Rajasthan, Jharkhand, and Odisha) were found to report payments without completion of toilets, payment to those who already had toilets, multiple payments to same individual, toilets constructed in vacant plots, funds diverted to building toilets in office premises of officials, low amount of disbursement than stipulated, poor quality of toilets, and incorrect ODF declarations (CAG 2017a; CAG 2017b, 110–120;
As previous studies in other countries have shown (Overman and Loraine 1994), MISs do not necessarily lead to improvement in quality, detail, or timeliness of information and might not improve policy effectiveness, despite the insistence of line managers to seek control through them. Performance management, if done right can be useful, however, given the many avenues for performance gaming, proper design and calibration through iterations are important for it to be effective.

Regulating a network of government owned and operated public toilets and government build trunk infrastructure is easier than imposing the requirement of building private latrines and policing each and every household, without really understanding the numerous challenges they face (e.g. high up-front costs, lack of visible return in short run, lack of space, lack of running water, etc.).Sanitation is a collective action problem not a private one. If the government spent its money on building and maintaining public sanitation infrastructure and public toilets, it would not only provide sanitation to the most vulnerable (e.g. migrants and homeless) but would signal government’s commitment to the problem. In turn, people would trust the information campaigns and feel motivated to change their behavior. This would consequentially lead to lower resources needed for monitoring and enforcement of sanitation-related laws and standards.

Table 3 below summarizes the above discussion and presents the policy content of SBM based on its on-ground implementation. The table seems to vindicate Vesely’s (2021) argument that policymaker’s choice of policy tools might be guided by their own beliefs and preferences, rather than the nature of the policy problem.

### Table 3. The policy content of SBM as implemented.

| Policy focus | Policy ends or aims | High-level abstraction | Program level operationalization | Specific on-the-ground measures |
|--------------|---------------------|------------------------|-------------------------------|--------------------------------|
| Policy means or tools | Instrument logic | Preference to provide monetary support for private toilet construction and use suasion and coercion for compliance | Mechanism 1. A one-off subsidy of 12,000 INR for toilet construction 2. A public awareness campaign to persuade target population to build toilets 3. Use of non-legal coercion. |
| Goals | Cleanliness, individual responsibility, and awareness | Objectives To get rid of open defecation for whole of India in five years |
| Settings | Type of latrine technology which is cheap, easy to use, and maintain on-site | No law to restrict open defecation but use of awareness campaigns, administrative orders and verbal threats to force compliance. |
| Source: Adopted from Howlett and Rayner (2013). | | | |
5. Conclusion

The aim of this article was to analyze the policy design of SBM. While there are many studies which have evaluated sanitation policies of India, this study is first in opening the black box of the tools chosen to implement SBM. It analyzes the individual and combined efficacy of these tools to achieve the desired goal of open defecation-free India.

The study reveals a critical deficiency in SBM’s policy goals. From a public policy perspective, the SBM’s approach to funding individual household toilets is misplaced. While sanitation is a public good which merits public investment, the government should maximize public value, rather than funding one-time construction of private sanitation facilities which largely increase the private benefit for those who can build and maintain it. This approach does not tackle the substantive problems of the citizens (e.g. land unavailability, homelessness, lack of access to water, gender inequality, poverty, migration, etc.).

On the tools level, the SBM has emphasized financial and informational tools more than organizational and regulatory tools. It has skewed the policy’s focus toward demand creation using financial incentives and suasion. In this model, citizens do the heavy lifting (e.g. acquiring land, building toilets, procuring water, maintaining toilets, etc.). Alternatively, if it had funded public toilets and trunk infrastructure, mandated sanitation standards by law, strengthened capacity of water and sanitation departments, taken ULBs to task for mismanagement, and nudged those who can afford private toilets to connect to trunk infrastructure, it would have made it much easier for citizens, especially women, to adopt safe sanitation practices.

The study also shows that tools which have been emphasized are ineffectively used. Without solving these problems associated with policy goals and tools, the SBM is merely a poorly designed conditional cash transfer scheme. Sanitation is a collective action problem. Individuals might not internalize the positive externalities and internalities of proper sanitation. More importantly, even if they do internalize them, they lack the range of necessary resources needed to construct and maintain toilets. Therefore, it is important for governments to intervene and choose context based and achievable policy goals. Once chosen, they should use the public policy frameworks to evaluate the range of tools at their disposal to achieve the chosen goals.

Notes

1. Refer to Annexure 1 (Supplementary file) to understand the taxonomy of sanitation used internationally. This taxonomy combined with the sanitation ladder described in Annexure 2 (Supplementary file), is intended to provide the reader with a good grasp of the terminologies used in sanitation sector.

2. Elimination of open defecation is defined as “... termination of fecal-oral transmission, defined by, a) no visible feces found in the environment/village and, b) every household as well as public/community institution(s) using safe technology option for disposal of feces”. “Safe technology option” is defined as “no contamination of surface soil, groundwater or surface water; excreta inaccessible to flies or animals; no handling of fresh excreta; and freedom from odour and unsightly condition” (Ministry of Drinking Water and Sanitation 2017a, 22).
3. The Census of India defines a house as follows: “a building or part of a building having a separate main entrance from the road or common courtyard or stair case etc., used or recognized as a separate unit. It may be inhabited or vacant. It may be used for a residential or non-residential purpose or both”. Source: http://censusindia.gov.in/Data_Products/Library/Indian_perceptive_link/Census_Terms_link/censusterms.html [Accessed: 20 October, 2019]

4. See UN Habitat data at: http://urbandata.unhabitat.org/ [Accessed: 15 February, 2019]

5. https://www.reuters.com/article/us-india-housing-women/too-afraid-to-sleep-indias-homeless-women-suffer-as-cities-expand-idUSKBN1KZ00S [Accessed: 1 March, 2019]

6. For a discussion see: http://www.ihrn.org.in/blog/Why-Re-defining-Homelessness-and-Responding-to-Census-Data-Should-Inform-Homeless-Policy-in-India [Accessed: 20 October, 2019]

7. The large urban slums of India symbolize the height of this uncoordinated development.

8. Women, who would ideally support household toilets, also resist building toilets in the absence of convenient sources of water, because they would have to do extra labor to fetch water for their newly built toilets (Mohan 2017).

9. For detailed exposition of the current institutional setup see: https://caravanmagazine.in/reportage/swachh-bharat-mission-heading-failure; for a comparison with the older organizational set-up under the TSC, see Table 2 in Hueso and Bell (2013).

10. Many newspapers and magazines have reported similar findings, for instance see: https://caravanmagazine.in/reportage/swachh-bharat-mission-heading-failure; https://www.ndtv.com/opinion/swachh-bharat-after-pms-big-push-where-it-has-faltered-1469495; https://www.scoopwhoop.com/un-dismisses-swachh-bharat/#.zjtp5h0qc [All accessed: 30 January, 2019]

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