

Shaming, Bribing or Facilitating: What Would it Take to Eliminate Open Defecation in India?

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Abstract:

More than half the global population that engages in open defecation lives in India. Strong health concerns combined with dismaying visions of consequences of widespread open defecation have united the world community and Indian government into strong public policy efforts at building toilets and reducing open defecation. These efforts have included cash subsidies for simple toilet construction as well as funds for Information, Education and Communications campaigns to encourage households to invest in toilet construction. In spite of this enormous emphasis, 53% of the Indian households in 2011 did not have toilet, a relatively modest decline from 63% in 2001. While this may be due to poverty, lack of income does not seem to stop households from acquiring electricity (67%), television (47%) and mobile or landline phone (63%) – none of which are subsidized by the state.

In this paper we try to examine the reasons underlying poor performance of toilet schemes. While sanitation is important in itself as a predictor of morbidity and mortality (Sguassero et al. 2012, Clasen Thomas et al. 2010) and nutritional status (Coffey et al. 2013), better understanding of the reasons underlying household decisions to build and use toilets will provide interesting insights into household decision making processes and thereby enrich a broader literature.

In this paper we use data from India Human Development Surveys (IHDS) of 2004-5 and 2011-12 as well as ethnographic interviews and cognitive methodology to understand processes that affect household decisions to build toilets as well as to let toilets fall into disuse.

Introduction:

Simple pit toilets with septic tanks proliferate around the world and have formed the backbone of sanitation programs in much of Africa. In India, as implemented by the Nirmal Bharat Abhiyan (NBA) program, simple pit latrines may be built with a construction reimbursement of Rs. 10,000 by the Government of India for households officially recognized as being poor. The government has also implemented a Community Led Total Sanitation Campaign (CLTS) in certain parts of India to educate households regarding the importance of eliminating open defecation and building toilets.

In spite of the fanfare with which these programs have been pushed by central and local politicians, their impact remains limited. A working paper by Yaniv Stopnitzky (2012), provocatively titled “Throwing Money Down The Toilet? India’s Toilet Subsidies and Sanitation Investment” notes only limited impact of the subsidies under the sanitation campaign. Our own fieldwork shows even more invidious effect. Although households may build a toilet with the government funds, these toilets often remain unused. The attached photograph shows a squat toilet whose origin is still visible through the rim of the toilet but it is filled with concrete and is being used to wash or store things but the household continues to defecate in the open.



Government policies have noted limited enthusiasm among target beneficiaries to build and have devised IEC campaigns to shame non-users into building and using toilets. A variety of interesting media and public relations campaigns are being undertaken that involve rewarding the whole village when it becomes 100% open defecation free as well as emphasizing gender aspect of lack of toilet facilities and its burden on women (Spears 2013). The program continues to flounder and one of the first initiatives undertaken by the new government is to totally revamp it.

What is most surprising is that few studies have examined motivations underlying either building or not building toilets. In this paper, using both

Using Quantitative Data to Explore Qualitative Insights:

Our qualitative research as well as extensive fieldwork in rural India has helped shape a number of questions regarding household decision making that we expect to answer using survey data from two rounds.

India Human Development Survey was conducted in 2004-5 with a nationwide sample of 41,554 households. These households were resurveyed in 2011-12 with a re-contact rate of 90% in rural areas and of 72% in urban areas. This allows us to examine which households built new toilets and which allowed their old toilets to fall into disuse over a 7 year period. Some of the descriptive statistics are presented below.

Table 1: Household Access to Toilets, 2005 and 2012

	Rural	Urban
No toilet in either round	58.42	14.18
Has a toilet in both rounds	20.05	65.94
Built new toilet	15.31	15.33
Lost toilet	6.21	4.54

By focusing on households that built new toilets and those that stopped using a toilet between the two rounds, we can address a variety of interesting questions that have emerged from our qualitative work.

Research Questions:

We suggest that a number of factors play a role in why households may decide to build toilets. Some are associated with household's own preferences about life styles, others are related to subsidies and exposure to IEC, still others form a hurdle to other environmental conditions. Our qualitative work has pointed to a variety of considerations that go into household decision to construction or disuse of toilets:

1. *Cultured (sophisticated, westernized, educated) households do not engage in revolting habits like open defecation.* If so we expect households with the following characteristics to be more likely to build toilets than others:

- Households with educated members, particularly educated women
- Households in which at least someone speaks fluent English
- Households whose economic status has improved over time

2. Toilets increase women's safety. If so, this motivation should be greater in areas that show greater physical risk or desire for male/female segregation and we should see more toilet construction (and lower disuse) in households that have:

- Greater restrictions on women's mobility
- Live in areas where greater harassment of girls is prevalent and local crime rates are high

3. Building toilets is expensive. If cost is a constraint, access to government subsidies may increase the likelihood of toilet construction. However, it may do little to ensure use and households with access to subsidies may be more likely to let their toilets fall in disuse. Since these benefits are given to households with access to Below Poverty Line (BPL) cards but distribution of cards is subject to considerable elite capture and exclusion (Dreze and Khera 2010), holding income constant we should see greater toilet construction among BPL households. Certain categories of households with Above Poverty Line cards (e.g. those from the lowest caste) are also eligible. Thus we expect that holding income constant, household who are eligible for subsidy may be more likely to build toilets. This includes:

- Households with BPL cards
- Above poverty line households who are eligible for subsidy (e.g. scheduled caste or scheduled tribe)

4. Toilets are smelly and unhygienic. Hygienic concerns are likely to be higher among households that live in areas where water wells are located close by or households that do not have access to sufficient water to pour flush and maintain cleanliness. This will be a particularly relevant factor in allowing toilets to fall into disuse. Thus we expect to see lower uptake and greater disuse among households that:

- Live very close to water wells or hand pumps
- Do not have sufficient water, at least in summer months
- Do not have space to adequately separate the toilet from living space

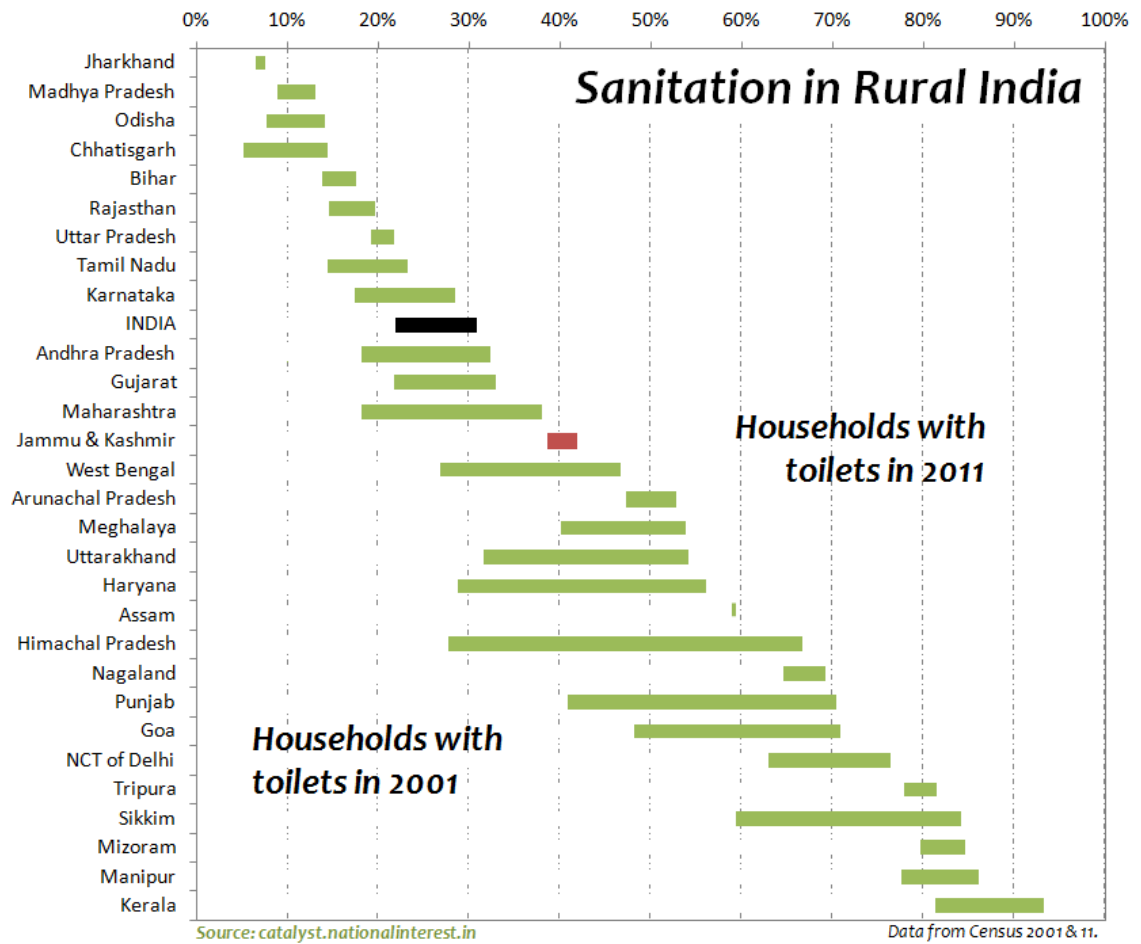
5. Open defecation has a social element where people, particularly the elderly, enjoy socialization while conducting their daily business. A number of studies have noted the social aspect of open defecation, particularly for the elderly. This was also emphasized in our interviews. Thus, we expect to see lower uptake and greater disuse among households that have:

- More elderly members and none of these members have any constraints in carrying out activities of daily living.
- Greater decision making power in the hands of the elderly

Testing these research questions is complicated by tremendous household and regional heterogeneity that is difficult to measure and control.

Geographic conditions, market conditions and government efficiency play an important role in shaping household preferences. Households that are located in

areas with low water table may worry less about grey water from the toilet contaminating their drinking water. Some villages may be on route with sanitation companies willing to empty the sewage pit as needed others may have no option but to stop using the toilet once it is full. Some states have better administrative set up for distributing toilet construction subsidies; in others households may have to wait years to receive the subsidy. Census shows tremendous geographic variation in growth of toilets between 2001 and 2011.



Moreover, household social background may be particularly important in shaping household preferences for building and using toilets. A number of studies have noted that Muslim households are far more likely to have toilets than Hindu households and have offered this as a partial explanation for lower infant mortality among Muslims (Geruso and Spears 2014). If differential preference for “cleanliness” is associated with observable characteristics like religion, we can control them in our analyses. But this preference may be associated with unobserved characteristics.

Thus, in this analysis we rely on fixed effects models to deal with this heterogeneity. Since IHDS is a panel survey with almost all of the independent variables of interest collected in both rounds of the survey, a household level fixed effects model will help disentangle these relationships.

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