No toilet, no bride: The unlikely link between private toilets and marriage market outcomes in India

In the latest post of our SDGs series (with Africa at LSE and the IGC), Britta Augsburg and Paul Rodríguez Lesmes examine the sanitation crisis in India, with a study on the determinants of toilet acquisition. Toilets represent an unlikely status symbol for households, and new findings suggest that households may see toilets acquisition as a means of improving the marriage prospects of their sons.

Ensuring access and availability of clean water and sanitation for all has been marked as the 6th Goal in the new UN Sustainable Development agenda. Within this goal, bringing an end to open-defecation is a significant target, not only for its expected wide-ranging implications on community health, but because of its potential knock-on effects on education and welfare of women and girls in vulnerable. In India, open-defecation remains one of the biggest sanitation challenges today. While ‘moderate’ progress has been achieved figures show that over the last 20 years, there has been very little reduction in open defecation amongst the poor (ibid.). Assuming that the characteristic profile of the households that currently build toilets remains unchanged, back-of-the-envelope calculations suggest that the Government of India, would “have to construct 81 toilets per minute – day and night – starting 1 January 2015 to meet its goal of eliminating open defecation by the end of 2019, or 41 toilets per minute to meet the United Nation’s goal of eliminating open defecation by 2025”.

Given the enormity of this task, we ask first what drives the uptake of sanitation; and second, how policies be designed to accelerate this process?

In a recent Ideas for India column by Guiteras, Levinsohn and Mobarak the authors discussed the results of a field experiment in Bangladesh. The study examines a range of sanitation marketing strategies, and finds that amongst others, costs are the primary barrier to investments in toilets.

In this blog, we complement and expand on earlier findings with summary results from an ongoing study of the determinants of toilet uptake and acquisition in India. The study is based on the urban slum population of a major Indian city (Gwalior, in the northern state of Madhya Pradesh), peripheral villages from the same city and a rural village population from the Thiruvarur district in the southern state of Tamil Nadu. Using data collected at two separate intervals (2009/10 and 20014/15), household characteristics are used to understand which factors predict uptake and investment decisions for private latrines, over time.
Relaxing financial constraints increases the likelihood of toilet ownership

The determinants of toilet ownership and acquisition that our findings reveal are for the most part, in line with expectations. We find for example that richer households, households with higher education, and households from higher castes are more likely to own a toilet. Similarly, households with savings and greater credit access are also more likely to make sanitation investments. Interestingly however, a further finding reflects a shift towards greater inclusion over time along these margins.

Figure 1 for example displays the percentage of households owning a toilet in the two survey rounds by income quartile. While in the first round of data collection (light grey bars) we observe a very clear gradient in ownership, the second round, shows a shift happening over time with poorer households increasing their relative likelihood of owning a toilet (dark grey bars).

*Figure 1 Toilet ownership and income*
Increased access by households with lesser means is likely to be, at least partly, driven by improved credit access. However, constraints in observational study design do not allow us to establish a clear link. Our data suggest that – although most toilets are reportedly financed through savings – access to credit does play an important role in households’ investment decisions in sanitation.

**Non-financial constraints matter: How marriage market outcomes can influence toilet acquisition**

Although significant, financial constraints are not the only barrier to toilet ownership. Several studies support this finding including: the low uptake of vouchers in the above-mentioned study by Guiteras et al (2015), the low achievements of government subsidies, and initial results from sanitation loan programs (Augsburg & Rodriguez-Lesmes, 2015b).

The traditional approach of raising awareness and demand creation through health messaging, does not seem to be enough to motivate households and communities to fully eradicate the practice of open defecation. Our analysis suggests instead that messaging around status and social mobility might resonate better with poor populations in India.

Campaigns such as ‘no toilet, no bride’, launched by the government of Haryana in 2005 are a worthwhile marketing strategy to explore. An analysis of this campaign finds that greater male investments in toilets may be the result of higher numbers of females with strong sanitation preferences. In line with this, our study provides evidence that anticipated marriage and the practice of brides moving into the house of their husband’s family are important motivating factors for the acquisition of toilets. We show that households with male children close in age to entering the marriage market are more likely to acquire toilets.

Figure 2 plots the rate of toilet adoption over time and conditional on other household characteristics that we previously showed to be important determinants of toilet adoption, such as savings, income and caste. Looking just
at households that have children in the age range 12-24 years. The left panel of figure 2 shows adoption rates of households with boys in this age range and the right panel that of households with girls. While the adoption rate remains relatively constant for households with girls of marriageable age, we see a significant increase in households with boys of a marriageable age.

Our analysis reveals that these households are on average ten percentage points more likely to invest in a toilet than households with girls of marriageable age – which can be interpreted as a clear signal that toilet investment are seen to improve outcomes in the marriage market.

**Figure 2 Child age and household sanitation adoption**

Additional evidence points to importance of the marriage market as a driving factor in household sanitation adoption. Data shows that 80% of toilet owners across our different study settings report that their status in the community has increased since they constructed a toilet. And, more importantly, women reported that sanitation did indeed play an important role in their marriage decision – supporting our claim that toilet investment can improve the marriage prospects of boys.

**Unlikely status symbol: Emphasising gains to social status may accelerate towards achieving Goal 6 and eliminating open defecation**

Overall, our findings are consistent with a growing body of research that shows that liquidity constraints are binding and substantial for private latrines. Hence any intervention that aims to increase household sanitation coverage must address financial barriers.

However, even when financial barriers are lifted, households face competing investment possibilities and need to weigh the benefits of one investment against another. Our evidence suggests that sanitation adoption decisions in the Indian context are not only driven by health considerations, the typical departure point for sanitation promotion programs, but also by potential economic benefits. These include self-reported increases in social status, dwelling value, and as we discussed in detail for this blog, the prospects of better marriage matches for their sons.

In societies where large financial investment decisions are typically made by men, advocating for the benefits of sanitation that appeal more to men maybe a worthwhile strategy to pursue in order to reach the goal of eliminating
open defecation.

This post forms part of a cross-blog series on the 2030 Agenda for Sustainable Development run by the IGC, Africa at LSE, and South Asia at LSE blogs. View more posts in this series.

About the Authors

**Britta Augsburg** is a Senior Research Economist in the development sector of the Institute for Fiscal Studies, the Centre for the Evaluation of Development Policies (EDePo) and an affiliated researcher at the United Nations University-Merit in Maastricht, the Netherlands.

**Paul Rodríguez Lesmes** is a PhD candidate from the Economics Department at University College London. Paul is a graduate from Universidad del Rosario (Colombia) and since then has worked as a researcher on projects from the Universidad del Rosario, the World Bank, and the Institute of Fiscal Studies among others.

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