

## Scaling Up Rural Sanitation

# Long Term Sustainability of Improved Sanitation in Rural Bangladesh

May 2011

## INTRODUCTION

When sanitation sector professionals hear the words ‘sanitation’ and ‘Bangladesh’ the first thought that may come to mind is that it is the birthplace of the Community-Led Total Sanitation (CLTS) approach. However, there is more to the sanitation story from Bangladesh that needs to be shared. Lessons extracted from the Bangladesh experience could richly inform sanitation strategies in other countries, particularly those struggling to increase access to basic sanitation in rural areas.

Some background may be helpful. From 2003 to 2006, the Government of Bangladesh (GoB) scaled up efforts to address unsanitary household practices through a national sanitation campaign that engaged multiple levels of government. The government’s goals were to achieve 100% sanitation coverage and stop open defecation in rural areas by 2010.

In a departure from previous efforts, this campaign emphasized the *confinement* of feces from the environment rather than the *construction* of a durable, sanitary latrine. It could be argued that this focus helped contribute to and accelerate latrine coverage and cessation of open defecation. Additionally, during this campaign, central, district, and sub-district governments took collective action and played a lead role in social mobilization. The central government also rewarded Union Parishads (the lowest tier of administrative government) that successfully promoted the installation of latrines in all resident households, declaring the Union Parishads “100% sanitized” or open defecation-free (ODF).

While local government took a lead role, various efforts from non-governmental organizations (NGOs) helped to bolster and support implementation in many areas before, during, and after the campaign. There were roughly four implementation approaches: 1) local government authorities received limited or no assistance from NGOs (GOB-only); (2) local governments received some support from international donor organizations (GOB-Donor); (3) local governments received strong support from NGOs using Community-Led Total Sanitation methods (NGO-CLTS); and (4) local governments received strong support from NGOs not dedicated to using Community-Led Total Sanitation (NGO-Non-CLTS).

## KEY FINDINGS

- A national focus on sanitation carried out by the Government of Bangladesh at all levels likely helped to shift social norms around open defecation and sustain latrine use at large-scale.
- Access to local, private sector providers of sanitation goods and services helps enable sustained latrine use at scale.
- Continued sanitation promotion reinforces latrine use and is positively associated with owning or sharing an improved latrine.

## PROBLEM STATEMENT

The rapid scale-up of rural sanitation in Bangladesh using the total sanitation approach is starting to be adopted by many countries. Countries in South Asia, Southeast Asia, and Africa are looking for solutions to address the issue of basic access to rural sanitation, and it is important to learn from early pioneers (such as the GoB) who have applied the total sanitation approach at scale. One area of particular interest for sector professionals and policy makers is to better understand both positive factors of sustainability and factors that might work against sustainability of rural sanitation. This knowledge could help inform future programming and policy decisions.

## ACTION

To learn about the sustainability of rural sanitation in Bangladesh, the Water and Sanitation Program (WSP) in conjunction with the GoB and NGOs felt it was important to investigate several knowledge gaps:

- 1) the degree to which sanitation behaviors and facilities are being sustained in Union Parishads declared ODF at least four and a half years ago;
- 2) the level to which sanitation programming has been sustained in these Union Parishads, and to the degree possible, whether this programming is contributing to sustained behaviors;
- 3) if

there are perceived benefits associated with maintaining ODF status and if these benefits are contributing to sustained latrine use; 4) the degree to which private sector sanitation service providers have been sustained, and whether household access to them contributes to sustained latrine use; and 5) identifying other factors that may work in favor of or against sustained sanitation behaviors and facilities.

The research team used quantitative and qualitative research methods to analyze the current status of 53 out of a universe of 481 Union Parishads declared ODF before June 2005 (Illustration 1). The study unions represented different geographic areas and the four implementation approaches mentioned above. A household survey covered 3,000 households in 50 of the Union Parishads, and qualitative research was conducted in a sub-sample of 18 Union Parishads.<sup>1</sup>

**Illustration 1: Location of Study Districts**



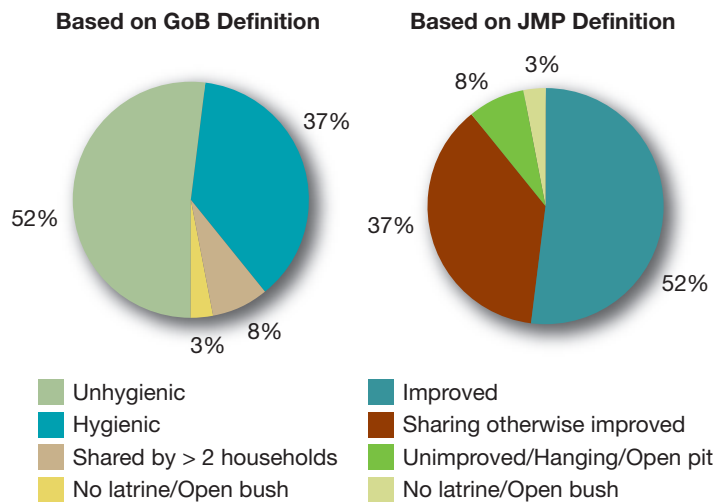
The 53 Union Parishads studied were located in 36 districts.

**CURRENT STATUS**

Four and a half years after the Union Parishads studied were declared ODF:

**89.5% of sample households own or share a latrine that safely confines feces.** Of the remaining 10.5% of households, 2.5% do not have any latrine; 5.5% have a hanging latrine or facility that drains directly into the environment; and 2.5% use an open pit without a slab. While this finding indicates some backsliding, the fact that the Union Parishads sampled in this study are not entirely ODF should not overshadow the large-scale acceptance and use of latrines that has taken place in these Union Parishads. At the same time, the 10.5% of households defecating in the open or not properly

**Figure 1: Percentage of Rural Household Latrine Coverage in ODF-Declared Unions (n=3,000)**



confining feces should not be neglected as they continue to pose a public health risk.

While access to an improved or shared latrine is high, the picture varies depending on which definition is used to classify latrine access. Based on definitions used by the GoB, only 37% of households sampled met the criteria for a “hygienic” latrine (Figure 1, left); based on definitions used by WHO and UNICEF Joint Monitoring Program, 52% met the criteria for an “improved” latrine, which excludes sharing (Figure 1, right). This implies there is more work to be done to help households improve current facilities.

**70% of sample households have owned their current latrine for at least three years,** indicating that the majority of latrines built are fairly durable.

**All four implementation approaches resulted in high rates of sustained latrine use and low rates of open defecation.**

The use of improved or shared latrines and prevalence of open defecation varied slightly across the four approaches. One possible explanation for the similarity in sustained outcomes across approaches could be the GoB’s countrywide commitment to diffuse the idea that latrine use is important for household health and development. The government’s commitment may have been the cornerstone for influencing the social norms in favor of improved sanitation behaviors and facilities, regardless of the specific approach. (Figure 2).

**KEY FINDINGS**

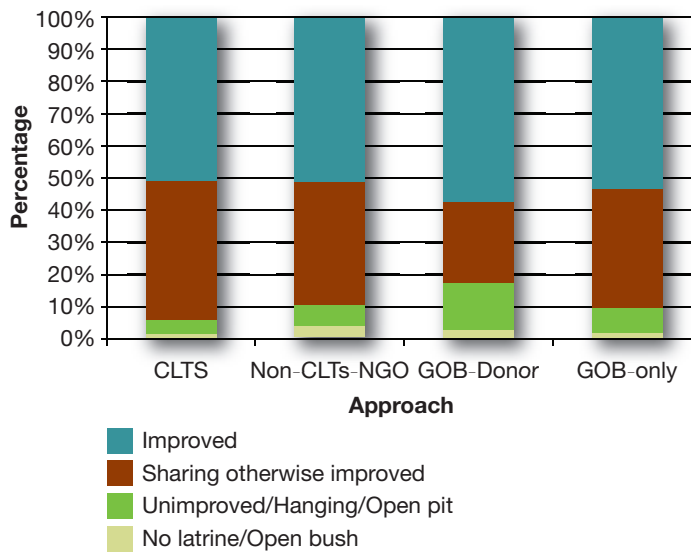
Programmatic and social factors correlated with sustained use of improved latrines:

**Households that reported having been exposed to a follow-up program were 1.8 times more likely to have an improved or shared latrine compared to those that did not receive a follow-up program.**<sup>2</sup> Additionally, households that were visited by someone who advised them on latrine use were 1.4 times more likely to have an improved or shared latrine compared to those

<sup>1</sup> Research was conducted by The Manoff Group, Planning Alternatives for Change and Pathways Consulting Services from October 2009 to April 2010.

<sup>2</sup> All odds ratios listed are significant at p<.05

**Figure 2: Percentage of Rural Household Latrine Coverage by Approach (n=3,000)<sup>3</sup>**



who did not report receiving a visit. It was found that two-thirds of Union Parishad chairmen still promote sanitation by reminding constituents of the importance of 'hygienic' latrine use, providing latrine parts to poor families, declaring local rules against open defecation, and following up on sanitation-related complaints. In-depth research in 18 Union Parishads showed that about half were still using their annual development program funds on sanitation. It was also noted that 26 out of the 53 Union Parishads studied had some form of follow-up program by an organization other than the Union Parishad. This study suggests that on-going programming and continued reinforcing messages may be a contributing factor to sustaining sanitation behaviors compared to households that did not receive such messages.

**Households with female heads were 2.5 times more likely to have an improved or shared latrine compared to households headed by males.** A possible explanation is related to the concept of *purdah* that exists in Muslim and Hindu cultures. A latrine offers women privacy for defecating, urination, and menstruation management, which allows them to adhere to *purdah* and avoid the shame of being seen by men at these times. This study suggests that the 2003–2006 campaign possibly tapped into latent demand by millions of females to have a latrine for cultural reasons.

Access to private sector providers is a factor that enables sustained use of improved latrines:

**At least 95% of households reported an ability to access to latrine materials and skilled masons in a local market.** Moreover, 74% of households knew where to find a latrine pit cleaner. The emergence of a mature private sector means that market forces have allowed most households to access affordable parts and services that can help sustain the use of improved and shared latrines. Mass production of latrine parts has made latrine ownership a possibility for households of modest means, though not for the very poorest. It is important to note that the businesses that remained operational since the end of the campaign tended to sell a variety of concrete products, and not just latrine parts.

<sup>3</sup> Based on JMP definition

Other factors that enable the sustained use of improved latrines:

**Social norms around open defecation and latrine use have positively changed, which likely was a result from sanitation and hygiene promotion.** Formerly, latrine use had been the norm mostly among upper-income groups or in areas covered by earlier campaigns. Now it is a socially accepted practice at all levels of society, including the poorest wealth quintile. Those who continue to practice open defecation are socially criticized. Marriage arrangements, village respectability, and village purity for religious events are widely assumed to require use of "hygienic/health-enhancing" latrines. One plausible contributor to this shift in social norms is that the behavior change communication campaign directed toward households was fairly pervasive: campaign messages were communicated through various channels and settings, including messaging by Union Parishad members or officers at meetings, rallies, over loudspeaker announcements, and household visits by Union Parishad members or NGO workers.

While the average prevalence of open defecation across the study unions is low, it is important to understand the factors that contribute to the continued behavior of open defecation and use of unimproved facilities among this segment of the population.

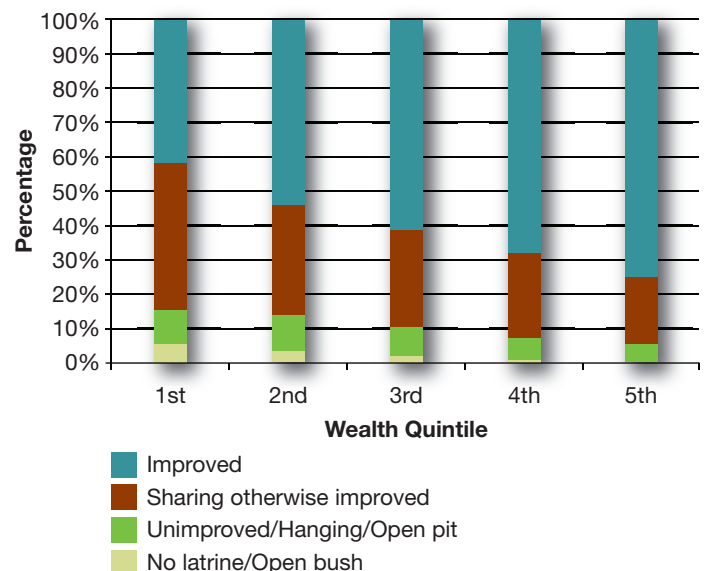
Factors correlated with unsustained use of improved latrines:

**Poverty is a factor that affects sustained use of latrines.** 89.5% of households own or share an improved latrine; however, those that continued to defecate in the open or did not use an improved or shared latrine (10.5%) were largely represented by the two lowest wealth quintiles (Figure 3).

**Severe natural disasters have an effect on sustained use of latrines.** More than 20% of households using unimproved latrines were located in Union Parishads impacted by severe natural disasters (cyclones, floods, or tornados) within the past three years.

**Lack of local leadership may affect sustained use of latrines.** In eight Union Parishads there was a higher concentration of households

**Figure 3: Percentage of Rural Household Latrine Coverage by Wealth (n=3,000)<sup>4</sup>**



<sup>4</sup> Based on JMP definition

using unimproved facilities (more than 20%). A common characteristic was that none had a Union Parishad chairman who actively worked on sanitation at the time of the study. Additionally, five of the eight Union Parishads did not have a sanitation follow-up program.

## INSIGHTS FOR FUTURE PROGRAMMING

Considerations for governments and sector professionals to sustain sanitation programming and behavior change at scale:

### **Government has to have the political will to prioritize sanitation at the central and lower tiers of government.**

Bangladesh is an excellent example of how sanitation was included in the country's poverty reduction strategy, which provided the road map for all levels of government and civil society to take and sustain action on sanitation. Advocacy from the central government down to the local governments, led by the Minister of Local Government, Rural Development and Cooperatives, was a factor in unifying the country around sanitation.

### **Sustained sanitation programs are needed to support behavior change. Local government authorities require some level of sustained financing for continued sanitation promotion for an undetermined period of time.**

This study showed that follow-up and reinforcing messages appear to help with sustained use of improved latrines. Bangladesh offers a good example of institutionalizing sanitation by 1) establishing a sanitation secretariat in the government, 2) celebrating sanitation

month each year, helping to keep it on the government's agenda, and 3) using Annual Development Program Allocations issued by the central government for sanitation.

### **Financing mechanisms are needed for households that want to replace or upgrade basic latrines, or move out of shared arrangements.**

This could be accomplished by connecting microfinance institutions with service providers so that providers have the necessary cash flow to offer services/products on credit or in installments. Moreover, some form of financing or subsidy option is needed for the poorest that still have not achieved basic sanitation. Subsidies that are targeted to the poor through community-based or self-selection methods may be more effective in reaching the poor than means-tested systems.<sup>5</sup>

### **Sanitation marketing can help sector professionals better understand consumer's constraints and aspirations.**

The barriers and benefits to using a latrine are likely to be different for those who continue to defecate in the open and those who share a latrine. Market research can help target an affordable level of service that gives consumers the most satisfaction, increasing the likelihood of sustained use of latrines.

<sup>5</sup> Tremolet, Sophie, Pete Kolsky and Eddy Perez. 2011. Financing On-Site Sanitation for the Poor—A Six Country Comparative Review and Analysis. Washington, D.C.: WSP.

WSP is a multi-donor partnership created in 1978 and administered by the World Bank to support poor people in obtaining affordable, safe, and sustainable access to water and sanitation services. WSP's donors include Australia, Austria, Canada, Denmark, Finland, France, the Bill & Melinda Gates Foundation, Ireland, Luxembourg, Netherlands, Norway, Sweden, Switzerland, United Kingdom, United States, and the World Bank.

The findings, interpretations, and conclusions expressed herein are entirely those of the author and should not be attributed to the World Bank or its affiliated organizations, or to members of the Board of Executive Directors of the World Bank or the governments they represent.

## Full report

The complete report, *Case Study on the Sustainability of Improved Sanitation in Rural Bangladesh*, is expected Spring 2011 and will be available at [www.wsp.org/scalingupsanitation](http://www.wsp.org/scalingupsanitation). This report includes qualitative and quantitative analysis on behavioral outcomes such as latrine use, sharing, disposal of children's feces, operation and maintenance, and upgrading/repair to understand the factors that can lead to—or inhibit—sustainable sanitation outcomes. Information on private sector providers, costs of latrine parts and services, institutional factors, and perceived benefits of achieving ODF status. Throughout, there is a focus on the poor and how they compare to other households with more modest means.

## Acknowledgements

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## About the program

Scaling Up Rural Sanitation is focused on learning how to combine the approaches of CLTS, behavior change communications, and social marketing of sanitation to generate sanitation demand and strengthen the supply of sanitation products and services at scale, leading to improved health for people in rural areas. It is a large-scale effort to meet the basic sanitation needs of the rural poor who do not currently have access to safe and hygienic sanitation. The initiative is being implemented by local and national governments with technical support from WSP. For more information, please visit [www.wsp.org/scalingupsanitation](http://www.wsp.org/scalingupsanitation).

## Contact us

For more information please visit [www.wsp.org](http://www.wsp.org) or email Craig Kullmann at [wsp@worldbank.org](mailto:wsp@worldbank.org).