

Programs and Pollution: Establishing Universal Sanitation Coverage in Rural Bangladesh

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Today I would like to share some observations on how the cultural principles of ‘purity’ and ‘pollution’ relate to programs promoting improved sanitation in Bangladesh.

The Public Health Concept & Sanitation Promotion Efforts

Modern sanitation, by definition, entails careful management of human feces. An adequate “sanitation” situation, as defined by public health science, means that everyone living in a specific place must avoid open defecation, confining feces in some way, while also taking other measures to prevent fecal-oral disease transmission. For more than 100 years now this strategy has been used in Europe, North America, and other places to prevent cholera epidemics and other diarrheal diseases. Universal latrine usage and frequent hand washing are the cornerstones of the strategy.

Widespread sanitation (usually meaning just latrine use) is a rather new idea in Bangladesh. Until the 1980s household latrine use was limited to relatively educated and affluent social groups. By now, however, a large percentage of Bangladesh households, even in rural areas, have the habit of using some kind of ‘improved’ latrine. The most common type is a single-pit model: a two- to ten-foot deep lined pit covered with a concrete squat slab. Covering the top is important, as it prevents insects from flying in and out of the pit and spreading disease.

The presently high level of latrine use in rural Bangladesh needs a brief explanation at this point. It is the result of intensive effort at many levels of society. Sanitation programs responsible for this achievement have been numerous and varied. They have been implemented by many types of organizations and public agencies – small, local NGO’s, national or international NGOs such as WaterAid, CARE, or Concern; bilateral donors; UN agencies such as UNICEF and WHO, and/or by government agencies – national, regional, and local. Leaders aspiring to reach Millennium Development Goals¹ have made great strides in persuading many to protect themselves (and their neighbors) from disease by giving up open defecation. Promotion techniques are of three general types, found in assorted combinations:

- Some have emphasized participatory, “persuasion” approaches that activate local social processes in order to produce meaningful and sustained changes. (Example: Community Led Total Sanitation)
- Others have sent in teams of experts to educate people and monitor their behavior, often over a period of years. This approach may be called the “badgering” or “pestering” approach. (Example: CARE-SAFER)
- A third approach is “coercion” – the use of authority to require installation of latrines, violence such as setting fire to screens around open defecation spots, and/or playing upon people’s fear of punishment, possibly fines or even jail. (Example: Most campaigns led by locally elected officials)

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MDG 4 (Reduction of child mortality) and MDG 7 (Environment, including access to safe water) both relate to sanitation.

From 2003 to 2006 the Bangladesh government initiated a National Sanitation Campaign which rewarded locally elected leaders – Union Chairmen-- for getting 100% of their constituents to install latrines. Our most recent study (our ninth of this type), done last year for the World Bank’s Water and Sanitation Program, was an assessment of the “sustainability” of the results of the National Sanitation Campaign². Our findings were mostly positive. Open defecation declined to a mere eight percent by 2008. (JMP 2010) Our 2010 survey found almost 90 percent of 3000 rural households in 50 rural unions still to have ‘improved’ latrines four to five years after the National Campaign ended.

‘Pollution’ As a Cultural Concern in South Asia

Pressing for universal sanitation coverage in South Asia, public health experts will encounter a widespread, perhaps universal concern with ‘purity’ and ‘pollution’, which in this region assigns to feces an especially polluting status, probably surpassed only by menstrual blood.

The ideas of purity and pollution are fundamentally different from those of cleanliness and dirt. One is a combined physical and spiritual condition, and the other is just physical. The public health notions of cleanliness, dirt, and hygiene are based on relatively recent, scientific information about germs and physical processes related to the spread of disease. Purity and pollution are older, magical and religious ideas. Purity is associated with safety, wholeness, and spiritual

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This recent study was conceptualized by the World Bank Water and Sanitation Program and funded by the Gates Foundation in 2009-2010. The study was conducted by three companies: The Manoff Group, Planning Alternatives for Change LLC, and Pathways Consulting Services Ltd. Suzanne Hanchett was the Team Leader. Previous studies were funded by the Royal Netherlands Embassy, Danida, CARE Bangladesh, DFID, and UNICEF. Some were done on behalf of other consulting firms and organizations, primarily DHV Consultants and Water and Environment at London and Loughborough (London School of Hygiene and Tropical Medicine).

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integrity. Pollution is a dangerous condition, related to social ambiguity and transition (times of birth and death), personal sin, and social exclusion of polluted groups. Purity and pollution ideas do not distinguish between sacred and secular domains. We have frequently heard people (both Muslims and Hindus) say, for example, that if they do not bathe after contacting human feces, God will not accept their prayers.

People immersed in scientific work often conflate the two ways of thinking and may refuse to recognize (or admit to following) purity-related ideas and practices. Use of some common words ('contamination', 'clean', 'unclean') supports confusion. The emotional power of pollution ideas is difficult to measure and often misunderstood. One example of such misunderstanding is the idea that old food taboos and other ritual practices somehow indicate that the ancients understood the germ theory of disease. This point of view disregards the well-documented cultural and social principles underlying such practices. The field of sanitation comes as close to pollution sensitivities as any scientific endeavor can. Some have argued that the sanitation subject itself is denied the attention it deserves because people have such an aversion to thinking about feces. (Black - two publications) Feces are considered disgusting and polluting in some sense by almost all human groups (Ortner 2010). In one of her reports Maggie Black complained during the 2008 International Year of Sanitation that:

At present, programmes dedicated to 'water and sanitation' in the developing world typically spend 95 per cent of their resources on water. The word 'sanitation' is purely decorative. (Black 2008) One book on sanitation describes all of South Asia as "faeco-phobic." (Black and Fawcett 2008) All of this makes the Bangladesh sanitation achievement even more remarkable than they otherwise would be. Some of the more effective programs have succeeded in persuading

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people that latrine use reduces pollution – pollution of the earth and of common water bodies.

These messages build on ideas from the environmental movement to achieve the desired effect, at least in part.

Purity and pollution beliefs and feelings, however, are so pervasive and important in this region, that they are likely to continue influencing people's sanitation-related practices in various ways. Unless they are recognized for what they are, they may impede progress toward public health goals.

Early Defecation Practices and Their Social Consequences

Old fashioned approaches to defecation in most of Bangladesh were consistent with long-standing ideas of maintaining personal purity and avoiding pollution. In earlier times feces were left outdoors, perhaps in or near ponds or canals. People of some areas sat on tree roots or even low-lying branches while defecating. Another popular type of defecation place was the edge of a village path or road. These practices kept feces in boundary areas and away from the home environment.

If people had defecation spaces near their homes, they usually did not confine feces in the presently standard manner. It was common to have them removed by people whose traditional family occupation involved various pollution-removal functions (related to dead animals or human corpses, for example, as well as excreta). Known as "Sweepers," these are people of the so-called untouchable castes, now known as Dalits. Their lowly status and social isolation is justified in common parlance by the fact that their customary work pollutes multiple generations, not just the

individuals who do the work. 'Purity' or 'pollution' thus is a group characteristic, as any student of South Asian caste (*jâti*³) systems knows.

Dealing with Pollution after Adopting the Latrine Use Habit

A consequence of widespread rural latrine use is that feces, though confined, are actually found inside the boundaries of residential areas to a far greater extent than they formerly were. The new situation has clear public health benefits, but it can challenge personal standards of purity. To some extent it can be said that people have made their peace with life closer to other people's feces; but it is an uncomfortable peace. Fights about neighbors' stinky toilets do occur. Every so often a vengeful neighbor will place a poorly cleaned latrine very close to his enemy's bedroom window.

Pollution concerns continue to surface in various ways. (1) They influence the placement of pit latrines. In the rural areas we studied last year they tend to be located rather far from living rooms, bedrooms and kitchens. The average distance between a home and a latrine in our 3000 survey households was 16 meters. Some affluent families are installing attached modern bathrooms with porcelain squat-plates, bathroom sinks, and so on, similar to those found in urban apartments and houses. These facilities, however, are often quite hygienic, connected to expensive septic tanks; and they are likely to be cleaned by servants.

³The locally ranked groups are known as *jaatis* are known by various names from one place to another, but the pattern always includes some Dalit categories. These groups are quite different from *vaarNas* (Brahman, Kshatriya, Vaisya, and Sudra), four broad classes identified in Vedic literature.

(2) Simply having feces buried in village latrine pits seems to be perceived as a polluting influence on the home or community. One woman we met in 2000, for example, said she would not consider having a pit latrine on her property, as it would defile the whole place. In one [Chittagong District] village we visited in 2010, where two sanitation programs had been working for 20 years (CARE-SAFER & VERC), a massive effort is made to empty all latrine pits before an important annual Hindu festival which attracts many visitors. This village-wide effort is said to ‘purify’ the village for the occasion.

(3) Pollution fears come into play also in connection with latrine cleaning. Daily cleaning is usually done before the daily bath by both Hindu and Muslim housewives. People who share latrines with other households quickly tire of cleaning up each other’s messes and may neglect the clean-up job entirely. A negative finding of our most recent study is that almost 60 percent of otherwise satisfactory household latrines were found to be not clean – having feces visible or profuse leakage of pit contents. The most intensively and long-term covered areas were no better on this score than others, indicating that reluctance to clean latrines – most likely related to pollution concerns – is a persistent problem even after people become fully committed to using them.

(4) Cleaning out a latrine pit is regarded as a far more dangerous activity, viewed in terms of pollution risk, than wiping off bathroom surfaces. Some people here and there do clean out their own latrine pits rather than hiring Sweepers to do the job. They have various ways of protecting themselves from the polluting effect of the act. For example, they arrange pulleys and ropes to help them avoid the need to touch buckets used to remove sludge. Social risks exist

however, as one case shows:

Khadija said that, since installation six years ago, they have cleaned the pit three times. The first time she cleaned the pit, and the next two times her husband cleaned it. While she was cleaning the latrine, her nephew was staying in her house as a guest. He lives in another village very far away. He reacted angrily seeing his aunt cleaning the pit. He rebuked her and asked, 'Are you a Methor [Sweeper]? Why do you clean the pit?' Ever since that incident, she has not cleaned the pit. Her husband has been doing it. (2010, Naogaon District case. Manoff et al. 2010:199)

A New Generation of Sweepers

One side-effect of expanded latrine use has been increased employment opportunities for Sweepers. The commonly used a single pit latrine needs to be emptied periodically. The job is done mainly by people of the Hindu Sweeper caste named Methor. But in high-demand areas poor Muslim men are coming forward to take advantage of the new opportunities to earn better pay than they can as cycle rickshaw pullers or day laborers. We found some people cleaning their own latrine pits, but this is a socially risky activity and may be done secretly.

The social position of people in the Hindu Sweeper caste seems to have improved a little, at least if they do not actually do polluting work. But those who do the feces-clean-up jobs are not at all accepted by the rest of the society. A Hindu pit cleaner in a northwestern district expressed some mild resentment about social exclusion he has faced as a result of his occupation and his low caste status:

Gopal and his family members who are working as pit cleaners are mostly reviled by the community people. Researchers easily observed this. The researcher ordered two cups of tea from the tea shop and offered him a cup, but he said he is not allowed to touch the cup and drink tea from it. He learned this from his childhood that sweepers are not socially accepted as a normal people. No one says anything to him, but it is his family training that he should never eat, sit, and touch anything where other people go. He is not invited to any social occasions/ festivals etc. He never feels bad for that as because he was informed by his family that being in their caste (*jaat*)

does not allow a normal social life. Their profession means people do not accept them as human... (Location: Chapai Nawabganj District, Shireen Akhter report, Case Study No. 82 in Manoff, PAC, & PCSL 2010:246)

Muslim pit cleaners, whose extended families do not know how they earn their money, report that they are less likely than Hindu Sweepers to be socially excluded. One group interviewed in Chittagong District had all moved there from other districts. They said that they do not suffer as much social discrimination in their working areas as Hindu Sweepers do, but they know that their occupation will make it impossible for their children to marry into 'good' families. They said that Muslim Sweepers have created their own society. Half-joking, they said they now were "Muslim Methors" and would be forming their own clan (goshti) and arranging marriages for their children within the group:

They have become more dependent on their own sweeper community. They have become one "sweeper goshti" [the word usually refers to a patrilineal family line]. They said, "We cannot arrange marriages for our sons or daughters with other professionals and families of different [occupational] groups. Even if we do it secretly, may be one day they will know our profession and bring back our daughter to us. Now we are thinking to make relations for marriage within the Muslim Methor [Sweeper] community." (Shireen Akhter report, excerpts from Case Study No. 83 in Manoff, PAC, & PCSL 2010:246)

A Muslim pit cleaner in another high demand area [Banaripara town, Barisal District] was working secretly in his new occupation when he married a girl from his distant home district. When she found out how he made his living, she left him for a while. He eventually persuaded her to come back and help him keep the secret. But she demanded that he never bring his pit cleaning tools anywhere near the house. He bathes twice after cleaning a latrine pit, once at the site and once before entering his home⁴.

⁴ Field report by Kazi Rozana Akhter

Conclusions

Sanitation programs in South Asia utilize various types of approaches. Although this paper has not discussed them in any detail, each approach has been found to produce positive results in the long run. Focus group participants said that even the “coercive” approaches had been necessary; and since they were acting in the common good rather than for personal gain, leaders’ rough behavior had been mostly justified.

Social norms in support of latrine use seem to be gaining strength year-by-year. Having a latrine has become an indicator of family dignity. And whole villages pride themselves on having good, feces-free environments that make guests feel welcome.

Sanitation promotion programs in Bangladesh have succeeded to a remarkable extent in spite of the population’s strong sense of revulsion, indeed “danger,” associated with proximity to or contact with human feces. Some sanitation programs have made creative use of the pollution cultural principle to persuade people that latrine use is *less* polluting than open defecation.

But purity and pollution ideas are an enduring part of South Asian life – ones that do affect sanitation practice. Our studies show that many people are still nervous about the new need to *manage* feces rather than just *avoiding* them. The examples presented today demonstrate that pollution concerns can limit the efficiency and effectiveness of sanitation arrangements even in places where people are thoroughly convinced that universal latrine use has important health benefits. They do so by (1) compelling placement of latrines at inconvenient distances from living spaces. (2) In some areas the presence of feces inside the ground of residential areas is considered

to create an impure condition requiring periodic correction. (3) Pollution fears also seem to weaken or even defeat motivation to maintain levels of cleanliness needed to prevent disease spread.

(4) Pollution concerns emerge most clearly in relation to cleaning of latrine pits. Because the social stigma associated with touching feces has been used to justify the low social status of Hindu Sweeper castes for hundreds, perhaps thousands of years in this world region, people rarely try to clean their own latrine pits. It is remarkable in itself that *any* people do so. The efforts of poor Muslim men to take on the socially stigmatized pit-emptying job represent an important and interesting twist in the story. Their secretive approach, however, further demonstrates the continued importance of pollution ideas in the population.

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