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Chapter 3.2
Water, Culture, and Gender: An Analysis from Bangladesh

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3.2.1 Introduction

In most of rural Bangladesh, the proliferation of tubewells that pump up groundwater has increased people's access to drinking water over the last couple of decades. Most of the tubewells found in households, markets, schools, mosques, and other locations are privately owned, although the government has also installed some public tubewells. The government and development agencies heavily promoted these devices as 'safe' water sources compared to surface water (e.g., ponds and rivers), which is often chemically and pathogenically contaminated (and frequently led to high morbidity and mortality rates from water-borne diseases). However, the tubewell water that was deemed a public health success story only a few years ago is now poisoning millions of people, as naturally occurring, tasteless, odourless, colourless, carcinogenic arsenic is showing up in drinking water drawn from these wells.[1]

The discovery of arsenic has reduced water security and increased pressure on the tubewells that are still providing safe water. These are often the more expensive deep ones, which access deep aquifers that do not have high concentrations of arsenic. Deep tubewells are generally owned by those who can afford to purchase them and drill that deep. The majority of rural households use shallow tubewells that tap shallow aquifers, where arsenic is present in high concentrations as a naturally-occurring carcinogenic metalloid. Recent government initiatives to alert people to the arsenic in water sources have included painting red the tubewells that are producing water with unsafe levels of arsenic. Those wells deemed safe are

[1] Details of the arsenic situation in Bangladesh can be found in Ahmed and Ahmed (2002), Ahmed (2003) and Sultana (2006, 2007a, b, c, 2009).

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painted green.[2] As a result of the considerable heterogeneity in the geologic distribution of arsenic in the aquifer, the rural landscape is dotted with red and green tubewells, sometimes clustered, sometimes scattered, with tubewells in close proximity to each other producing water with different concentrations of arsenic. Households with green tubewells have secure access to safe water, while those with red tubewells have to decide how to obtain their daily water. They have to choose between fetching safe water (calculating the social, personal, and familial costs that may ensue) or consuming contaminated water (risking falling ill from chronic arsenic poisoning, or arsenicosis, which can lead to various health complications over time and eventually to death). In this chapter, I analyze the social and cultural issues that have a direct bearing on people's water consumption habits and the ways that arsenic and water affect men and women in the villages of rural Bangladesh. Analysis of the gender relations of water management sheds light on the multifaceted and profound implications of finding arsenic in drinking water, with people continuing to consume contaminated water amid an escalating public health crisis.

This chapter describes ethnographic research conducted between 2003 and 2005 in 18 villages in four districts of Bangladesh acutely affected by arsenic. The research involved participant observation, 232 semi-structured interviews with men and women of different ages and socio-economic, religious, and educational backgrounds, 15 focus group discussions with men and women, and case studies of individuals and households facing water crises or water poisoning.[3] All the villages in the study were predominantly agricultural, with high percentages of landless subsistence farmers involved in sharecropping arrangements through patron-client relations with a few wealthier farmers. The villages had significant levels of inequality and poverty and did not enjoy infrastructure such as piped water systems. People overwhelmingly obtained water via tubewells that tapped the groundwater in the deltaic landscape, and it was predominantly women and girls who fetched water for their families on a daily basis.

In my study, the villages had clusters of red tubewells at a variety of scales – sometimes a few adjacent households in a neighbourhood had contaminated wells, sometimes entire neighbourhoods, or sometimes an entire village. In all of these instances, households faced the challenge of securing safe water. Some lost access to their own tubewells when the tubewells were identified to be unsafe. Others whose tubewells were labelled safe (with no or low concentrations of arsenic) struggled with the stresses of sharing their water with a greater number of people. The

[2] While the concentration of arsenic in water may vary considerably within short distances, the policy that is being followed by the Bangladesh government is to paint red tubewells that are producing arsenic at concentrations greater than 50 μg/l and paint green those that are at concentrations below 50 μg/l. It is worth mentioning that the WHO (World Health Organization) standard of permissible arsenic in drinking water is stricter at 10 μg/l. A discussion on the politics of such development endeavors is beyond the scope of this article. For more details see Sultana (2006, 2007a, 2009).

[3] For greater detail on the methodologies used and the study sites and research participants, see Sultana (2007a, b).

majority of households reported increases in the time, distance, and energy needed to fetch safe water after arsenic was identified in water sources in their village. It is in such landscapes, where women and girls labour several times every day over various distances to fetch pitchers of water for their families, that access to safe drinking water becomes increasingly contentious (see also Sultana 2006, 2007a, b, 2009).

3.2.2 Gender, Class, and Water in Rural Bangladesh

Although scholars have argued that the role of gender in water management deserves more attention, few have as yet focused on the role that broader societal and ecological factors play in the implication of gender in water management – and the ways by which gendered waterscapes are produced, reproduced, and challenged. In studying gender-water relations, it is important to look at who does what with which type or source of water and why, where, and how these practices relate to gender identities and social relationships in general.

Household structures are quite hierarchical in rural Bangladesh, with a clearly demarcated gendered division of labour and rights. Typically, the patriarch (the oldest brother or father) has greatest say in household decision-making and controls the labour and behaviour of other household members. Men do not participate in fetching domestic water for drinking and cooking as that is deemed a feminine task, one especially suited to younger women and girls (Crow and Sultana 2002). The senior woman (matriarch), who may be the mother, grandmother, or eldest daughter-in-law (*boro bou*), can allocate the arduous task of fetching drinking water to younger daughters-in-law. The weak social power of daughters-in-law often results in their greater subjugation and weakens their bargaining power in the household and community; other people being able to command their labour generally perpetuates their lack of power. Young women, especially new brides, almost never challenge their mothers-in-law's oppressive actions, such as verbal and physical abuse, if the daughter-in-law did not fetch the water on time or in sufficient quantities.[4]

Class and gender relations are intricately intertwined in rural Bangladesh, and one cannot be studied without looking at the other (White 1992). In a hierarchical family structure, differently positioned members command differential access to cash, food, decision-making powers, education, and other resources.[5] Although women within a household generally have less power than men, women are able to

[4] See Kandiyoti (1988) for greater discussion of gender and patriarchy.

[5] I do not have the space in this article to go into detail on the measurements of class or the politics involved in such measurements, but do want to highlight that I recognise it is a contentious, multifaceted and complex issue. In this chapter, I use three broad categories of class (wealthy, middle, poor) based on overall landholding, income, remunerations and assets. In rural Bangladesh, ownership of land is the largest source of wealth and power and class is closely linked to education and non-agricultural earnings (for further discussion, see Sultana 2007a).

command different powers and resources based on their membership in a particular household depending on the socio-economic bracket it occupies. Although women in wealthier households may be powerless within their own families, they may have access to the family's tubewell and thus easier access to water, which places them at an enormous advantage compared to poorer women of households that do not own tubewells. When women belong to a landowning or powerful family, they are generally able to exercise some control over the women in share-cropping, agricultural labouring, and poorer or dependent kin families, who may be tasked with helping more powerful women to fetch safe water. Thus, class positions are important in the ways that gender relations play out socially with respect to water.

3.2.3 Space, Place, and Gender in Water Management

Generally, public spaces have been historically construed as masculine and private or domestic spaces as feminine. Men or women who intrude in the domain of the other gender are often seen as 'out of place' (Massey 1994; McDowell 1999; Creswell 1996). Females, especially, when found 'out of place' are often thought to be in need of greater control (Domosh and Seager 2001). Notions of *ijjat* (honour) and *lajja or sharam* (shame) are social sanctions used in rural Bangladesh to regulate women's presence in public spaces by limiting their mobility and dictating dress code and behaviour. Similarly, notions of *purdah* (veiling or seclusion) also operate in defining appropriate feminine behaviour (Rozario 2001). Although public-private boundaries may be blurred and often are for various reasons, cultural and material practices with regard to water (e.g., men irrigate farm land; women manage domestic water needs) also help to maintain them. What these concepts and practices mean is that broad sociocultural norms, that are also affected by age, class, education and position in the household, may constrain the mobility of women and girls. Thus, local customs, norms, and endowments of women, as well as class, marital status, and age are all important factors in determining which women will be burdened with the menial and laborious task of water fetching.

Moreover, the mobility involved in fetching water is often circumscribed within specific spaces and places, e.g., within one's own *bari* (a homestead consisting of a kin-based cluster of households around a common courtyard), or a neighbouring *bari*. As a result, it is more difficult for women, especially younger women and unmarried or teenage girls, to fetch water from sources in overtly public and masculine places such as bazaars, mosques, and roadsides. The public-private and home-outside divides become problematic when safe water sources are increasingly located in distinctly public spaces. These gendered constructions of public-masculine and private-feminine space come into conflict with each other when women, in pursuit of a domestic, feminine task, attempt to fetch water from public spaces. To fulfil their domestic duties, they venture out into roads, bazaars, mosques, and schools where the only safe water source may be. The private and public gendered spaces collide as a result of the need for safe water.

Box 3.2a Managing domestic water in Bangladesh after the arsenic crisis: A case study

—Kazi Rozana Akhter and Suzanne Hanchett

Box Map 3.2a.1 Bangladesh

The day-to-day picture of domestic water use is very complicated in Bengali-speaking rural communities of Bangladesh and West Bengal, India. Especially in well-watered rural areas, several different sources of water are used for various domestic purposes. Although they may not always have access to their ideal sources of water, people have strong preferences. It is typically the responsibility of women to collect and preserve water for domestic purposes, such as cooking, drinking, washing, cleaning, and personal hygiene.

Women tend to be very careful about their in-house methods of preserving water for different purposes. After bringing water to the house, for example, women of southeastern Bangladesh store it in separate pots: one for cooking, one for drinking, and one for washing after latrine use. They never use one pot's water for the other pot's intended purpose. This is a strict observance. Women of many regions generally are careful to maintain this separation. If women do not keep their household waters separated, they will be socially criticised. People say that violation of this norm is 'hateful', making food 'unpleasant to eat' and 'distasteful, causing an unpleasant feeling' (DHV 1998).

Since the 1970s and 1980s, increasingly large numbers of households in the Bengali-speaking region have come to depend on tubewells – easily installed, hand-pumped wells drawing water up from aquifers that are 12–60 m below ground, some even deeper. This technology was widely promoted by virtually all development agencies because the water is free of pathogens; but at the end of the twentieth century, it was found belatedly that in certain regions the water of aquifers less than 60 m deep had dangerously high concentrations of presumably naturally occurring arsenic.

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Box 3.2a (continued)

Box Fig. 3.2a.1 Girl carrying household water from a neighbor's tube well, Brahmanbana District, 2009 (Photo credit: Kazi Rozana)

Box Fig. 3.2a.2 Tubewell with red painted spout indicating high arsenic content in the water, Chittagong District, Bangladesh, 2000 (Photo credit: S. Hanchett)

The extent of the arsenic problem in Bangladesh was well understood by 2002–2003, by which time the water of many of the nation's tube-wells had been tested. Numerous agencies, governmental, non-profit, and international, set out to educate the public about the arsenic problem and help identify safe water sources. Technical challenges have been daunting. Arsenic dissolves thoroughly in water, and only chemical treatment can remove it. Some promising early arsenic removal methods turned out to be either less effective than hoped or too difficult for most village people to manage properly. A small number of community - and household-level filtration technologies have proved technically viable and have been provisionally approved for experimental distribution in Bangladesh. In West Bengal some organizations, such as the Bengal College of Engineering in Kolkata, have carefully installed community-level arsenic removal plants and monitored them.

Alternative arsenic-free water sources exist, as large and small rivers criss-cross much of the Bengali-speaking region and rain-fed ponds dot it. Several projects have supported a return to obtaining drinking water from ponds or dug wells; but these efforts have faced serious problems with social coordination among multiple users and owners. And these sources tend to have excessive levels of bacterial contamination unless they are carefully managed. The most popular alternative sources are 'deep tubewells', probing old aquifers 90–275 m down, which are mostly (though not all) free of arsenic.

(continued)

Box 3.2a (continued)

Box Fig. 3.2a.3 Narghiz, a housewife, carefully manages multiple domestic water sources and avoids cooking or drinking with arsenic contaminated water, Komilla District, 2009 (Photo credit: Kazi Rozana Akhter)

Box Fig. 3.2a.4 Narghiz's house, 2009 (Photo credit: Kazi Rozana Akhter)

The arsenic situation has increased women's workload as they try to avoid the hazards of arsenic-affected water. Many women, now accustomed to the convenience of their own tubewells, have started making long trips to collect drinking and cooking water from arsenic-free sources. Some have tried out new household water filters, all of which require regular cleaning.

Narghiz, a 38-year-old mother of five living in Comilla District, Bangladesh, is one woman who tries to provide her family with safe water by making long trips each day to collect water from a distant deep tubewell. The trip not only takes time, it also forces her to cross boundaries that are socially uncomfortable for a married Muslim woman who would like to observe some degree of honourable, purdah-type of restriction on her movements around the village.

Narghiz gets up very early every morning, cleans all the rooms of her house, and sweeps her courtyard. She goes out to collect drinking water before daybreak in order to avoid the crowd and also to avoid being seen by men. She says, 'I must strongly maintain purdah as I move around the village. This is my father-in-law's place, and as a wife from a respectable family I have to maintain purdah until I die'. She brings two pitchers of drinking water from a far-away deep tubewell and keeps them in her dining room. Sometimes she also collects drinking water for her neighbour. When her neighbour feels sick, Narghiz helps her, and vice versa.

The household does not have their own pond and their tubewell is contaminated with arsenic, thus every evening Narghiz goes out again to collect water from a distant pond. This she will use for cooking. After returning to her house, she pours the collected pond water into a large clay pot kept in her kitchen. Her family of nine needs much cooking water. She keeps the stored pond

(continued)

Box 3.2a (continued)

water for at least 24 hours without disturbing it, to allow the silt to settle out. The cleared water gives her curries a very nice colour. After it is clear, the water is transferred to a smaller clay pitcher, from which she draws out water as needed. Some of this water is kept in a white plastic bucket in her dining room, where it is used to rinse plates and spoons before each meal. Drinking water from a distant deep well is also stored in the dining room, in aluminium vessels.

She explains, 'I use my own tubewell water to wash my dishes and pans after we eat. But I do not use tubewell water to rinse the dishes before a meal, because the water has a high level of arsenic'.

Box Fig. 3.2a.5 Women enjoying a pond bath on a hot afternoon. Brahmanbaria District, 2009 (Photo credit: Suzanne Hanchett)

Narghiz also keeps some of her own tubewell water stored for toilet use. Before her daily bath she collects some tubewell water and pours it into a large clay pot kept in a small room next to the latrine, which is detached from the rest of the house. When they go to the toilet, household members carry a small, plastic kettle-like water pot called *bodna*, which is filled with water from that clay pot. 'This type of water is never brought inside the living [or] bed rooms, dining room, or kitchen', she says. Water from her own tubewell water is used for cleaning the latrine.

Narghiz takes a bath every day in a distant pond. After returning home from her bath, she washes her arms according to the prescribed Muslim ablution practice (*ozu*) and performs her mid-day prayer. The ablution is done with water from her own tubewell water. She washes her clothes with pond water.

Narghiz confidently declares, 'I like cleanliness, and I maintain it'.

Authors' Note: We called Narghiz and asked her permission to publish photos and information from the interview for this volume. We asked if Narghiz wanted her own name or a pseudonym used. After enquiring about the details and purpose of the volume, she agreed and said she would like her own name used. We explained to her that she was selected to represent the many women who try to manage their household water sources carefully. She was enthusiastic about the idea of having women's story told through her experience.

Most people in my study stated that the problems of collecting water from outside the *bari* or from farther away stemmed from not only to physical distance and time required to travel it, but also the social significance of extended travel. For many of the men interviewed, having a red tubewell in their homestead means that women and girls from their household have to venture out into public spaces to get water, a social transgression of major concern for the men, whose responsibility it is to maintain a proper household. Most women said that the biggest problem caused by having a red tubewell was the necessity of travelling further to get water or needing to use someone else's source. The second most frequently mentioned difficulty was that they must go into public spaces to access water. Both men and women expressed concerns about collecting water in the early morning or evening when it is dark, when the water source is far from the *bari*, and the social insecurity of travelling longer distances.

In some instances, women are restricted by their own family members from venturing too far to get safe water, and the women may be forced to fetch unsafe water for their family from a closer source. As one teenage girl said, 'My father said we'll have to drink this water [from the red tubewell] and that we shouldn't go to the bazaar to get water from the green tubewell. It is not allowed'. Such sensitivities often result in entire families continuing to consume contaminated water in a trade-off between safeguarding family honour and risking family health (which can seem less important because the health impacts of arsenic poisoning are not immediately felt but develop over time). The fear of loss of honour and shame when younger women from a *bari* are seen fetching water in distinctly public spaces or traversing public spaces to access someone else's tubewell, discourage families from accessing safe water. As one older women said, '*Oi barir boura bahir theke pani aney, amader barir bouderke ta korte deina ami*' ('The daughters-in-law of that other household get water from outside, I don't allow our daughters-in-law to do that', implying that it is disgraceful that the womenfolk from the other family go to public places to get water, whereas she does not expose her daughters-in-law to such socially risky practices). It is a sign of family honour to be able to keep daughters-in-law within the *bari* and not subject them to public visibility. This view is more prevalent in wealthier households. Women in poorer households observed that they do not have the luxury for such sentiments: '*Bahir theke pani na anle amaderke ke pani ene dibe?*' ('If we don't get our own water from outside, who will bring water for us?') This woman further noted that her mother-in-law does not have any choice but to let her get on with providing for their livelihood, as the only other option would be for her mother-in-law to do the work herself.

Although opportunities for women to be in public places have dramatically increased in recent years (e.g., women enjoy greater engagement with markets, schools, and jobs), these transgressions into formally male-dominated space are explicitly regulated through proper attire and behaviour. Thus, women in public spaces are required to cover their bodies more carefully than when they are within their homesteads. Usually the custom is for women to put their sari over their heads in public places as a form of proper decorum. Draping the end of the sari over the head is referred to as 'putting on a *ghumta*'. A woman in public without the *ghumta* is often seen in a negative light, as wanton and inappropriately behaving. Whereas

ghumtas often slip off and people do not give much attention to them when women are working in agricultural fields, people consider the *ghumtas* to be more important when a woman is walking about, going places, or doing less physically demanding work, as fetching water is understood to be, in comparison to field labour. The constant need to pull the *ghumta* back on means that a woman has to keep at least one hand free, which is possible if she is carrying one pitcher of water. If women are carrying more than one, then they will put the pitchers down to fix their *ghumta* before proceeding, especially if men are nearby.[6] Although there is flexibility in such veiling practices, the women of wealthier and middle-class households adhere to the norms of proper attire more readily than poorer women, who often have to engage in physical labour in public places and are less subject to social regulation of their attire.

In short, fetching water is a particularised burden for women, as notions of honour, shame, and decorum affect quite literally their access to water. The decisions that men and women make about where to obtain water reflect a struggle between the purity of women and the purity of water. These daily transgressions represent pollution in both symbolic and material terms.

Box 3.2b The purity problem and access to water in Bangladesh

—Shireen Akhter

Bangladeshi women are restricted from using safe water at critical points in the life cycle. For example, 'Selina', a 19-year-old who had given birth in the previous week, was found secretly cleaning her birth-stained cloths in a very dirty ditch behind her house. She said, 'I am not allowed to use our pond for my unclean cloths. If I do', she explained that according to Muslim birth customs, 'the pond will become as impure as I am. I need 40 days to become pure'. It is also said that a woman who is menstruating or who has just given birth is vulnerable to the threat of evil eye. She is in danger of 'bad wind' (*khaaraap baataash*), and it is assumed that supernatural elements will try to enter into her body, possibly causing her to become mad.

(continued)

[6] Such sentiments are stronger in more remote and conservative areas and less so in areas closer to urban centers, where more women have begun to go about without the *ghumta* and have normalised such attire in line with more urbanite women. A few of the highly educated women or job-holding women in villages may be seen without a *ghumta*, but they are often seen as exceptions to the norm due to their education/earning status. While religion does play a role in this irrespective of social location, as more conservative Muslim families will practice covering than less conservative Muslim or Hindu families, *ghumta* is practiced among Hindus too, but less stringently.

Box 3.2b (continued)

Box Fig. 3.2b.1 Women approaching a small, dirty puddle behind their home to clean menstrual cloths in secret (Noakhali District, 2007) (Photo credit: Shireen Akhter)

Menstruating women are not allowed to use common water bodies such as ponds and tubewells. They cannot even approach the boundaries, platforms, or steps around such water sources. They are even supposed to avoid rivers. According to one study, it is believed that a boat carrying passengers may capsize if a menstruating woman is on it. Women clean their bloody cloths outside of the house or compound in very secret, dirty places with unclean water from sources such as ditches or drains, risking skin and genital diseases. A menstruating woman is called sick (*sarir khaaraap,* literally 'bad body'), or 'impure' (*naapaak*). In every ethnic group we have encountered, women at these times in Bangladesh are restricted from using safe water sources. Because of the shame associated with their polluted condition, women hide their physical condition. Some women said, 'When a woman has menstruation and she goes under a tree with uncovered hair, she will attract illness-producing "bad wind" and djinns.'

Although water is universally agreed to remove pollution, those most in need of its purifying benefits are ironically forced by custom to use hidden and unclean sources.

In this respect, critical resource scarcity challenges social norms and the search for viable solutions affects household gender dynamics. Some women were able to argue successfully that having to fetch water from farther away meant that they must travel through and into public spaces. Such social breaches, which challenge social status and family honour, could be avoided only if their husbands installed a tubewell in their own homestead. Such arguments, of course, rest on the hope that a new tubewell would tap into an arsenic-free part of the aquifer.

Some younger women used the daily necessity to fetch safe water from farther places as a way to get out of the confines of the *bari* and to socialise with others. One development project worker called this '*Pani ante prem korte jay*' (roughly translated, 'Having an affair while fetching water'). Although such a comment may be prejudicial to women's mobility in public spaces and their honour (especially young unmarried women's honour), in this instance, arsenic and water become useful allies in manipulating power relations to increase mobility. However, some families circumvented such situations by continuing to use their contaminated sources or

making alternative arrangements (e.g., paying hired labour if they can afford it, sending sons if possible, or sending younger women with other women who will act as chaperones). One mother said 'It is not good to send our unmarried daughters to get water from so far away, people will talk and it is bad for their prospect of marriage'.

In securing access to safe water and its use, women also invoke other identities, depending on the context. They may invoke affiliation with certain powerful or wealthy households when trying to gain privileged access to a safe water source. Similarly, women may invoke their advanced age or status as a widow to claim certain rights to safe water sources. Women also use notions of femininity associated with motherhood to claim safe water, arguing that their children need safe water to survive. Some women also use kin and fictive kin status with other women (*shoi* or 'sisterly friend') to get help in fetching water if they themselves are unable to. Such informal networks and relations help in securing access to water but are increasingly challenged as safe water sources are fewer and further apart.

Beyond these social relations and strategic (albeit limited) manoeuvres by some women and girls, both men and women noted that the prevalent gendered division of labour in water management had a significant bearing on the ways they relate to water. In many instances, irrespective of their social standing within the household, women felt that all family members of their household should fetch water if they were capable of doing it. Fetching water was not as laborious once tubewells were dug inside their own *bari* as it had been in the past when pond water had to be hauled from greater distances. Some women said that with the convenience of tubewells, they would ask whoever was able and available to get a pitcher of water quickly, within reason (i.e., not matriarchs or adult men). Among sisters-in-law, there may be clear-cut delineation of who can fetch water for whom and in exchange for what, but often children and younger men fetched water as needed for whichever hearth within the *bari* needed it. However, with people having to travel greater distances outside of the *bari* to get safe water now, older patterns of gendered divisions of labour are resurfacing, thereby increasing women's burdens in providing water for their families.

Although gender makes most women less powerful than men in households and societies, the differences among women of different households are also noticeable, especially in relation to access to safe water. In a few instances where a safe tubewell was in the homestead of a poor family, they gained an unusual new power through the ownership of a safe water source in a landscape of poisoned tubewells. Although some wealthier women were reluctant to get water from such a well, many were forced to overlook the social status infractions occasioned by depending on the poor. Although some exerted existing power relations in securing access to the tubewell, using a poor household's facility went against the sensitivities of most of the wealthier households. Fetching water from specific places thus holds meaning, especially when from a well in a poorer *bari*. The heterogeneous distribution of arsenic and safe water came to play a role in the overall status that households had, especially for the women of the poorer household. Although a poor family's having the safe water source did not destabilise trenchant

patron-client relations and hierarchical class structures, it did provide the poor with some leverage, however small. As such, gender, class, and geographical location intersected in reducing the water insecurity of a few households in unexpected ways.

Box 3.2c A new type of 'social problem' – Comments of some male and female union council members in Ramganj Sub-district, Laksmipur District, Bangladesh

—From Suzanne Hanchett's field notes, 2006

Danida (the Ministry of Foreign Affairs of Denmark) and the Dhaka Ahsania Mission (DAM), an NGO, gave deep tubewells to poor people after doing screening for arsenic content of shallow tubewell water and finding high arsenic levels in the water....

One deep tubewell was given to a group of ten households. 'Social problems' resulted. Some rich people are living in nearby multifamily, residential compounds called *baris*. Their 'egos' absolutely will not allow them to ask for water from the *baris* of poor people. So now the solvent and middle-class people are forced to drink unsafe water. This is not fair. Danida and DAM gave help only to the very poorest people's *baris*, but everyone needs safe water.…

More middle-class people are perceiving the need for arsenic-free water nowadays…

3.2.4 Masculinities and Femininities in Water Management

Water and arsenic in rural Bangladesh have come to be key elements in the production of gendered norms, in how people's time and labour are valued, and how different groups of people feel powerless or empowered to change their access to safe water. Certain identities are created vis-à-vis water (safe and unsafe), whether in decision-making about water management, water collection activities, or suffering from water's effects. The constellation of ways that water plays a role in the production of identities and norms can vary by community and context, but overall gendered norms appear to respond to changing water conditions in the following ways: in the ways that gendered labour and gendered spaces in the landscape change with the manifestation of arsenic in water; in the ways that gender is negotiated in terms of water access and use; and in the ways that individuals negotiate a sense of self in relation to the complexities of unsafe waterscapes. Since teenage boys and adult men still resist helping fetch water, entrenched gender ideologies are generally maintained; but for those men who are more open to fetching water and for women who are also supportive of this change, water poisoning is bringing changes in gender roles and norms.

Water and arsenic bring into sharper relief the negotiations of masculinity and femininity in relation to the acquisition of safe water, but they can also blur the boundaries in instances where resistance to such norms is manifest. As one woman argued: 'Even if we are ill, our men will not fetch water for us. It is not a man's job to fetch water. It would be nice if they did sometimes, but we do not ask'. Yet another argued in favour of the gendered control of labour relations in water management: 'Why should men fetch the water? That is a woman's job'. Similarly, a man justified the social norms that regulate embodied relations to water: 'I would die before I fetched water for a woman. If I did, people would think I am mad'. Such socialised norms are common in maintaining the gendered division of labour in relation to water. And yet another man confided: 'Sometimes I help my wife get water, or my son does. This arsenic problem is for all of us'. These sentiments, however, are not commonly expressed.

It is important not only to pay attention to the different gender roles and meanings attached to activities that reinscribe gender in water, but also to the way water struggles themselves come to reconstitute and reinforce different subjectivities (Jackson 1998). Environmental struggles can end up reinforcing gender and power relations and highlighting the inequalities that exist, which are not substantially reconfigured even if some people contest them, as people can both internalise and challenge gender notions. Arsenic has largely tended to worsen patterns of inequality in the division of labour and people's sense of themselves in relation to water. The discovery of arsenic in the water seems to have intensified traditional gender roles, as more women bear the burden of fetching water, which had decreased as tubewells had become available in many homesteads. When tubewells are located in the *bari* or near the kitchen area (i.e., more private spaces), sometimes men get their own water without too much fuss, but now that there is greater dispersal of safe water sources, men are more reluctant to be seen participating in such a gendered task. Thus, notions of 'traditional' femininity are reinforced as a result of tubewell contamination and the spatialised nature of this water crisis.

In responding to a question about whether men should help more because of the arsenic situation, men and women's responses are strikingly similar: 80% of both groups said men should help more, and 20% said that men should not. The reasons given in the affirmative were often qualified by statements such as, 'Men should help only when women are ill, unable, too busy, or it is too difficult for them'. Those opposed argued that fetching water is a woman's job and that society looks down on men for doing a woman's task. In general, older women expressed less eagerness than younger women to have men participate in collecting drinking water; and younger men appeared to be more supportive of helping women than older men. Poorer households were more supportive of gender equality in this respect than the slightly better off; this discrepancy could perhaps be related to perceived social status concerns for the wealthier households if men in their household participated in drinking water collection. In households with people who have fallen ill from arsenic poisoning, men were more open-minded in challenging traditional norms in accessing safe water for their families. Some of the younger, educated men who were more aware of arsenic's impacts were also more willing to help get water once

in a while from farther afield if needed, especially if they had bicycles to transport the water (this was not very common, though, as bicycles are less available among poorer households).

Approximately a third of the 232 people interviewed, both male and female, claimed that men do occasionally or sometimes help in getting drinking water for their households in light of increased hardship in procuring water. The majority, however, agreed that men did not help at all. In instances when men got water 'sometimes', it was usually when the water source was within the *bari* and the water was for himself (to drink or to make tea). What was also interesting to note was that although poorer men were more open to the idea that they should help fetch water given the arsenic crisis irrespective of proximity, wealthier men only agreed when the water source was close by and within the *bari*, not in public places. Fetching water in public would threaten their masculinity; within one's own *bari* the threat was less of a problem.

What explains the trend in opinions across classes is that poorer households largely do not have their own tubewell, and so the men are more willing to go outside to fetch water; conversely, richer households tend to have tubewells within their *baris,* and thus more men are willing to get water from such sources, as this does not transgress social norms drastically. The middle-class households that often do not own their own source and worry about social repercussions and gendered identities in fetching domestic water are less willing to have their men get water from other places. Men's visibility and the distances and spaces involved appear to be deterrents, as both the middle-class and wealthier households are generally more concerned about social norms than the poorer households, including the implications of fetching water for masculine identities and thereby family honour and social standing. Thus, the spatial distribution of arsenic and tubewells and the spatialised nature of water collection influence the relationships that men and women have with water, challenging gendered roles and identities and the construction of masculine norms vis-à-vis water. This entrenched gender division of labour and gendered identities in relation to water management may be increasingly challenged in the future as water scarcity forces all household members to participate more actively in procuring safe water, but at the moment only a minority of men are willing to engage in this activity.

3.2.5 Conclusion

Attention to gender relations and norms that are produced through and responsive to complex environmental change demonstrates that struggles over water are not only over access, control, or use, but also about gendered power relations. Such a conceptualization of gender-water relations, in which the spatial distributions of arsenic and contaminated tubewells influence the ecological and spatialised identities negotiated in water management and gendered norms are produced simultaneously socially, spatially, and ecologically, is also useful for practitioners and policymakers in gauging the ways that individuals and households access safe and unsafe water,

respond to water contamination, and participate (or not) in water management projects in their locales (see also Sultana 2009). Understanding the social and cultural norms that influence gender relations to water can help explain why so many Bangladeshi households continue to consume poisoned water despite official efforts to increase awareness about arsenic.

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