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**WATER, SANITATION AND HYGIENE SERVICES BEYOND 2015:
IMPROVING ACCESS AND SUSTAINABILITY**

Bengali women's ideas about water quality

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Respecting cultural beliefs and customary practices is part of the rights- and commons-based thinking about water. The focus is on place-based practices and beliefs. Incorporating indigenous beliefs into any new, participatory approach to water management, however, is quite challenging to the scientifically oriented development professional. This paper explains to the basics of cultural views of water among Bengali-speaking people of the southern, eastern, and western parts of the Bangladesh delta. Examples are drawn from the authors' work on arsenic in drinking water and other WASH issues. Ideas such as hot/cold or pure/impure are perceived as "superstitions" by many scientists. If our thinking about water life is to change in the direction the commons-based approach suggests -- to incorporate indigenous views into place-based planning -- the main obstacle will be with those who now have the upper hand, not those who are marginalized. Planning processes should be organized in ways that respect local views and take them into consideration when introducing new technologies.

Introduction

When we speak of water as "a common resource for the sustenance of all" (Shiva 2004:15), then, we are talking about social and spiritual sustenance, not just physical survival. Water in many world regions, perhaps all, is given distinct cultural meanings. It may be perceived as a spiritual being in itself. It may be the home of spirits. It is used as a ritual purifier almost everywhere. Local traditions include myths about water bodies – ponds, rivers, and so on. These myths are part of the social reproduction process, helping to form and maintain ways of life. Social cohesion and identity are formed in "cultural landscapes." Similar feelings are expressed by many indigenous tribal groups asserting their rights to water: in Canada, Australia, New Zealand, and elsewhere. These are not trivial matters.

Respecting cultural beliefs and customary practices is part of the rights- and commons-based thinking about water. The focus is on place-based practices and beliefs. The goal is to respect "the environmental and cultural peculiarities of place." Indigenous ideas have a unique opportunity to be recognized and respected. Water-related cultural traditions of South Asia have deep historical roots. These may be considered "indigenous," although the word usually refers just to tribal groups and their traditions.

The struggle to assert the human right to water already has gained support from (and reinforced the value of) indigenous ideas. These were quite important, for example, to people challenging privatization of Delhi, India's municipal water system in 2004-2005. One activist said that water not only ensures survival, but there is a need to recognize the 'place of water in our cultures and how we look at it'. Many of the protesters argued that people view water as culturally important and imbue it with social significance. Their position was that "cultural meanings of water [were] incompatible with privatization schemes that prioritize water as a commodity." (Bywater 2012:213).

As the protesters in Delhi said, there are strong and pervasive ideas about water in the South Asian world region. They have deep roots in this old civilization. Many old traditions survive in a lively folk culture. Every part of the subcontinent has its own variations on the theme, but all share the view that water has spiritual and emotional powers.

As Bernadette Gomes (2005) has said of the western Indian state of Goa, for example, "Water has generated communities and fostered a sense of community, charted the course of history, evolved beliefs

and ritual, contributed to oral traditions of proverbs and idioms, and it remains the matrix of social life for the Goan people.” In Bangladesh a common saying is, ‘Water is life’. There is a cultural ethos of sharing at least some drinking water with anyone who needs it. Much of the countryside is dotted with large and small ponds, some of which have special stories associated with their origins or spirits thought to inhabit them. Bangladesh water culture¹

Today we want to introduce you to the basic outlines of the cultural views of water in one population, Bengali speaking people of the southern, eastern, and western parts of the Bangladesh delta. Our team has been doing research on water culture for more than five years. We hope that understanding these views in detail will help all of us to see the opportunities and challenges involved in the call to respect cultural and place-based specificity.

Most of the region experiences seasonal water shortages, even though there are several rivers, ponds and other water sources. Another problem is leasing of surface water (rivers and ponds) for fish culture, which is a profitable business. People who formerly had access to fisheries in local rivers now cannot get this food. Underground water, used for drinking in much of the area, is contaminated with arsenic at unsafe levels, but programs to solve the arsenic problem have mostly failed.

Management of domestic water supplies is almost always a female responsibility. Women and girls of all social classes do their best to manage several different kinds of water they think necessary to sustain family life. They struggle very hard to cope with water shortages in the dry season, floods in the rainy season, and the problem of arsenic contamination in many areas year-round. However, they have a limited role (if any) in planning changes to their local water regimes. Sharing drinking water is a strong cultural value.

Ideas about water “quality”

Water quality is an important issue for at least two reasons. One is that, as the concept of the “human right to water” evolves, the question comes up: “Right” to how much water and of what quality? The second matter is more complicated. Who should set the standards for water “quality” in any particular place? Those who favor moving forward to add in a “commons view” of water resources argue for increased involvement of local people in planning and management, more emphasis on collective and social life. Implementing this approach would involve a radical shift in thinking, to make space for ideas that are very different from scientific ones.

Over the years our team members have interviewed more than 100 women (and some men) about their ideas of water quality. Folk traditions are still strong. Many of these traditions can be traced back to medieval times or earlier.

One important aspect of water quality in the Bengali folk view is ‘hot’ or ‘cold’. In the case of water this is a combination of actual temperature and the perceived effects of different kinds of water on the human body. Certain foods, however, are thought to be either ‘heating’ or ‘cooling’ in their bodily effects regardless of their temperature. Such notions of ‘hot’ and ‘cold’ are based mainly in Ayurveda, an indigenous South Asian science of humoral medicine. In Ayurveda (and in folk beliefs) illness is thought to be caused by physiological imbalance. Young children and new mothers – vulnerable people – need to avoid too much ‘cold’. There is a fear that this might cause death.

Bathing water for babies, therefore should not be ‘cold’. Most women will heat their infants’ bath water in the sun for a while before giving bathing them with it. As the mother’s physiological condition is thought to affect that of her infant, she will take her pond bath at times when the water will not make her body too cold.

The prevalent fear of ‘cold’ water has come up at least twice in recent decades when new water technologies were introduced. Around 20 - 30 years ago hand-pumped tube wells were being promoted as the safe drinking alternative to surface water. Women we spoke to said they initially feared that the underground water was too ‘cold’ in its physiological effects². They eventually stopped worrying so much about this, but even now the water of various tube wells is assessed partly in terms of its ‘hot’ or ‘cold’ qualities.

In 2009, when we were studying people’s responses to arsenic-removal filters for UNICEF Bangladesh, we found a similar fear coming up. Several mothers of young children told us that the filtered water is so ‘cold’, that when their children are sick, it is better to give them tube well water (which is arsenic contaminated).

Another quality judgment is ‘pure’ or ‘impure’, which is not the same as clean or unclean. Purity is both physical and spiritual. Physical contact with impure things harms the soul. Like ‘hot’ and ‘cold’, purity ideas in this world region have a long history and are of concern to almost everyone. Pure water is needed for

religious ablutions, offerings to god(s), and other ritual purposes. Three important causes of water ‘impurity’ are women’s menstrual blood, blood associated with birth, and human feces. Menstruating women and new mothers, therefore, customarily do not bathe in common ponds. They may bathe separately, using separated vessels, or they may use dirty puddles for hygiene purposes.

Other quality features of water which are of interest to our study population include clarity, color, age (old or young), and something called ‘lightness’/ ‘heaviness’, iron content, and taste. Good tasting water is said to be ‘sweet’. Arsenic-contaminated or arsenic-free are categories that have become widespread during the past 15-20 years.

Folk healers follow a practice called ‘reading water’. Some holy words are spoken over water, which is thought to absorb them and give the water healing powers. The germ theory of disease is known, but it is not the dominant paradigm for the majority of the people we have interviewed. Awareness of the arsenic problem, which is very serious in some places, was slow to develop for various reasons – mostly weaknesses of programs and projects. But it did not help that arsenic has no special color or taste.

Respecting other people’s cultural views

Incorporating indigenous beliefs into any new, participatory approach to water management will be quite challenging. Ideas such as hot/cold or pure/impure are perceived as “superstitions” by many outsiders who visit South Asia, if they know about them at all. We have been surprised to find that some Bangladesh professionals also are reluctant to recognize that there may be any value to non-scientific beliefs. (Perhaps they feel ashamed when colleagues from outside mention them.) Such attitudes are inappropriate, and they are especially harmful to the project of building or supporting commons-based approaches to water management. The word “superstition” should be eliminated from our vocabulary.

We all need to understand that people in every world region use folk practices, myths, and so on, to cope with uncertainty and explain life’s frustrating mysteries. Regarding hot/cold in Bangladesh or India, we find that different women have different ideas, although virtually all those we have interviewed follow some version of the theory or another. There is much discussion and debate about whether some food, or some types of water, is ‘heating’ or ‘cooling’, or whether it caused a child’s illness or not, and so on. “Culture” offers only parameters, categories, or concepts. These make it possible to communicate with others, think about problems, and to take action to solve problems. Like other folk health beliefs, they often are used after-the-fact to explain illness or other human problems.

Conclusions

The value of cultural traditions is gaining acceptance among people concerned with environmental issues. In a book published recently by UNESCO, the editor said:

“A crucial step in laying the foundations for sustainability” is “...deepening individual and collective understandings of how water is understood and valued...”

(Johnston 2012)

A World Health Organization (2011) manual, *Guidelines for Drinking-water Quality*, moves in a positive direction when it recommends attention to consumers’ preferences and perceptions. This document, however, considers only people’s senses, not the cultural context:

To a large extent, consumers have no means of judging the safety of their drinking-water themselves, but their attitude towards their drinking-

water supply and their drinking-water suppliers will be affected to a considerable extent by the aspects of water quality that they are able to perceive with their own senses.(p. 219).

If any large-scale thinking about water life is to change in the direction the commons-based approach suggests -- to incorporate indigenous cultural views into place-based planning – the main obstacle will be with those who now have the upper hand, not those who are lower status, less educated, or female.

Two-way communication between elite, educated professionals and those they try to “help,” especially if there is a social class difference, is very rare in any country. The act of listening to poorer, female, mostly uneducated people in itself sometimes is considered to be demeaning to a professional’s dignity and insulting to his/her hard-earned training.

Incorporating indigenous ideas about water quality into any formal planning process will require being ready to negotiate some big differences between conceptual frameworks. This is not a simple matter, but scientifically trained water and sanitation professionals will find that it can improve results.

The process requires (a) setting aside the idea of “superstition” and respecting local cultural beliefs and their historical roots; and (b) listening to people’s concerns without judging them; and (c) modifying communication and technical approaches in ways that make sense to the people who are intended to benefit from them.

Strategies such as these are in accord with globally recognized principles of the individuals’ “right to water” and the “commons” approach affirming the importance of water supply to whole communities.

If this can be done, however, the benefits would be great. As water resources decline with global warming, there will be more and more pressure on limited waters. We will need all the good ideas we can get to cope with these inevitable changes. The sharing of resources *and* ideas would build morale, at the very least, increasing the chances for unified action to solve the problems ahead.

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Notes

1. What we mean by "culture" is the conceptual and social framework at the heart of a way of life: The production and reproduction of a way of life involves a way of knowing that is a result of a long-term systemic interaction between people and their surroundings. This knowledge is rooted in cultural practices and spiritual values and enshrined in customary laws. These biocultural experiences and relationships have over the millennia enabled human groups... to survive and thrive. (Johnston et al. 2012:xv)
2. Other researchers found the same thing in one region of Bangladesh. (Zeitlyn and Islam 1990)

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