



## Addressing behaviour for arsenic mitigation

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BANGLADESH IS PASSING through a dangerous disaster caused by arsenic problem. Some studies have shown that the problem is so acute that one of every ten persons is under the threat of arsenicosis [Alam, 2000]. For arsenic mitigation three types of means are being introduced in Bangladesh that are - i) avoiding the arsenic contaminated water (ACW); ii) using the technology to purify ACW; iii) curing the arsenic afflicted persons. With imperial evidence and field data this paper aims to demonstrate firstly, human behaviour and its ingredients; secondly, why and how human behaviour should be addressed for arsenic mitigation through the means of no i and ii.

### Behaviour and ingredients

Behaviour is the way through which human being acts or functions in particular situations. It refers all perceptible activities of individuals [Fadem, 1994]. Its ingredients are of two types.

- Covert - thoughts, sensations, feelings, attitudes, views, perceptions, moods, intelligence, rationality etc.
- Overt - movement, all expressions, talking, practices, aggression and activities, etc.

### Avoiding arsenic contaminated water and behaviour

Collecting water from the tube-well is habituated practice from 1960s or 1970s in Bangladesh society. This technology is not originated in Bangladesh. For ensuring safe water UNICEF introduced this technology in Bangladesh [Hasan, 2000]. In fact tube well is a penetrated technology in Bangladesh context. During the period of 1940s to 1970s there were 5-10 'kancha kup' in every village of Bangladesh [Adel, 2000]. Since 1970s simultaneously tube well is a part of cultural system and a generator of some cultural components. Basically tube well is a widely used and deep-rooted tool in Bangladesh. As per our empirical knowledge tube well is an essential part of a family. 97.1 per cent of total population uses tube well water for drinking [NGO Forum, 1998]. After detection of the arsenic contamination concern sectors (Government, NGOs, United Nations system) took initiatives to identify arsenic contaminated tube well. But in this context we have a vital question -

Are just identifying and marking arsenic contaminated tube-well enough to motivate people for avoiding existing use of tube-well?

On the basis of the tube well community people have developed their own using system which consists of fixed

responsibilities (for collecting water, care taking tube well, etc), taste, habit, social status (in Bangladesh tube well is a symbol of social status), etc. Some users of tube well have viewed that they do not want to know the problems only, they expect solutions. Some villagers have ignored the threats of arsenic. Some people have frustrated that they have nothing to do now. These opinions indicate their response to the existing mitigation programme that can affect their behaviour towards avoiding ACW. Concerned organizations should take those initiatives along with survey through which core of human behaviour could be addressed. Behaviour directs the conception of individual in taking decision. We have several types of cases in Asian countries that show failure of such initiatives due to ignoring cultural and behavioural aspects [Stone, 1989].

### Adopting new technology

Meanwhile various types of technologies have been introduced in Bangladesh to purify arsenic contaminated water (ACW). These are- arsenic removal plant, chemical oxidation, reverse osmosis, nano-filtration, etc. [Hasan, 2000]. Success of these technologies depends upon adopting by the users. Introducing technology in a community is not isolated function, it links individuals and social units to the physical environment, technology-the way in which tools are used to teach goals of existence-is the realm of culture that most importantly defines the conditions to which individuals and social units adapt [Handwerker, 1981]. So it is not only some mechanical rules or tools. In one sense it is a culture, which is being a part of existing culture, and in another sense it is an input which promote the individual capability through adopting in behaviour. If technology contradicts with existing behaviour of users it is not easily adopted and penetrated in the user society. We got lessons that due to ignoring cultural and behavioural aspects some renowned projects were failed in developing countries. Some examples of these projects are Punjab's Agricultural Project [Kurin], Nutrition Programme of Gambia and Child Development Project of Ghana [Foster, 1973].

Some qualitative data have been collected from Harishava of Srinagar thana under Munsigonj district of Bangladesh in which a private firm installed a arsenic removal plant. As per collected data following behavioral issues have been identified about the plant -

- Only 50 households (where as there are 200 households in the villages) use plant's water only for drinking, but for bathing, cooking, private cleansing, child caring, domestic purposes they do not use this water;

- Villagers do not use plant's water for cooking because rice cooked with this water turned rust colour;
- Villagers have to use water of other tube wells along with the plant;
- They do not know who installed this plant. They know arsenic but they do not know why it is threatened for health;
- Some times they have to maintain serial/queue for collecting water from plant, but with this practice they are not habituated;
- Plant was installed in that place which is not connected with *sorkari rasta* (governmental paths), so some people can not have the benefit of the plant;
- Site selected for installation is not well justified some people thought it tough to access there;
- Water of this plant contain foul smell *báhá báhá Gondho*, they opine it not suitable for drinking;
- They are not interested to pay for using plant water. Above issues indicate that, this plant for arsenic removal can not create appeal in behaviour of users. A gap between plant and behaviour is existing in society and culture of villagers. As a result local people can not adopt this technology and plant is not being used optimally.

## Conclusion

Behaviour directs the individual mind. Accepting and rejecting any thing depend up on individual behaviour we have learnt it from the above discussion. Development sector should take initiative for shaping behaviour in favour of adopting technology and new ideas before taking programme for arsenic mitigation.

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