

What we have done on arsenic issue in last 15 years in Bangladesh (The Millennium Development Goal period 2000-2015)?

Arsenic is well known poisonous chemical component which naturally found in underground from soil, and water. Bangladesh is one of the country where certain area of its ground water has been contaminated with arsenic. Majority of its population drink deep tubewell water that being said that they are drinking arsenic contaminated water. The problem with the arsenic contaminated water is that it cannot be wipe out by boiling the water. Drinking arsenic contaminated water for a long period could cause many deadly disease including cancer. It causes many diseases including vascular disease, liver disease, weaken nervous system, diabetes, and chronic cough. It also adversely affects pregnancy causing still birth and impair child development. Alarmingly, it transfers from mother to child that means the baby carries arsenic at the very first day of their life and could potentially suffer from arsenic induced diseases in their later life. Early symptoms include skin darkening (diffuse or spotted melanosis) over the chest, back or other parts of the body.

It was in 1987 when an Indian scientist first identified arsenic induced skin lesion in Bangladesh however public health attention has been drawn in much later in 1998. In 2000, World Health Organization (WHO) stated that Bangladesh has been suffering the largest mass poisoning of a population in history and sets acceptable limit of arsenic for Bangladesh is 50 μ g/L. By 2001, around 57 million people were identified at risk of suffering from arsenic poisoning. It was not only because of drinking arsenic contaminated water but also because of eating arsenic contaminated rice which is contaminated by the soil where it cultivates.

We looked all the research conducted and published in the scientific journals from 2000- 2015 to understand to what extent research on ground water arsenic contamination has been conducted in Bangladesh. We also looked at the various aspect of arsenical toxic effect that has been studied on the Bangladeshi population. We found that majority of research were conducted on the health consequences and few on the extend of arsenic contamination among the Bangladeshi population and potentially could suffer from arsenic toxicity. Among the health consequence of chronic arsenic poisoning most of the study found the non-cancerous health consequence of arsenic, however, half of the study found the cancerous effect of arsenic. We noted that from 2000-2015, there were also few number of study has been conducted on the mitigation and technologies that could deal with arsenic poisoning. Very little (only two) research were conducted on the future direction of arsenic poisoning in Bangladesh.

Although there are quite a large number of research has been conducted on the arsenic issues in Bangladesh, questions that still remain include: How many people use arsenic concentration testing devices? Can they operate them? If they use them, how long do they use them for? Which family member makes the decision to use such a device? Are people aware that reducing visible arsenic lesions takes a long time? How effective are medicines or supplements in reducing arsenic

toxicity? What are their priority health consequences? What is the government policy for mitigating arsenic contamination? Are other partners pushing this issue at policy level? Are there sufficient funds to tackle this issue? Answers to these questions will offer greater insight into how to deal with the issue of arsenic contaminated water in Bangladesh.

Arsenic toxicity affects millions of people in Bangladesh but surprisingly, still remains a neglected public health concern. Although the government of Bangladesh has made it a priority agenda for the population to have access to safe drinking water, there are still population pockets that continue to suffer from arsenic toxicity due to contaminated water supplies. These areas need to be identified on an urgent basis to provide comprehensive mitigation support.

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Publication

[A Review of Groundwater Arsenic Contamination in Bangladesh: The Millennium Development Goal Era and Beyond.](#)

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