

A pitcherful of poison: India's water woes set to get worse

Caution! That drop could be toxic. In a list of 122 nations rated on quality of potable water, India ranks a lowly 120

Sujata Dutta Sachdeva | TNN

Even as India and the world worry about the current food shortage, it might be water that eventually leaves the nation high and dry. Here's a stat that should make you think before you plug down that next glassful. In a list of 122 countries rated on quality of potable water, India ranks a lowly 120. And although India has 4% of the world's water, studies show average availability is shrinking steadily. It's estimated that by 2020, India will become a water-stressed nation.

The Constitution makes it the State's duty to provide potable water to its citizens — a mandate that remains on paper for many folks in 21st century India. Nearly 50% of villages still do not have any source of protected drinking water, say experts. Government stats paint a different picture though. According to the 2001 census, 68.2% households have access to safe drinking water. The department of drinking water supply estimates that 94% of rural habitations and 91% urban households have access to drinking water. But experts point out that these are misleading, simply because coverage refers to installed capacity and not actual supply.

"The ground reality is that of the 1.42 million villages in India, 1,95,813 are affected by chemical contamination of water," says Depinder Singh Kapur, country representative, WaterAid. The quality of groundwater, which accounts for more than 85% of domestic supply — since none of the

140-plus gazetted rivers have water fit to drink — is a major problem in many areas.

ELIXIR OF LIFE?

No wonder 37.7 million people — over 75% of whom are children — are afflicted by waterborne diseases every year. Overdependence on groundwater has brought in contaminants, fluoride being one of them. Nearly 66 million people in 20 Indian states are at risk because of excessive fluoride in their water, say experts. "While the permissible limit of fluoride in water is 1 mg per litre, in states like Haryana it's as high as 48 mg in some places. Delhi water, too, has 32 mg. But the worst hit are Rajasthan, Gujarat and Andhra Pradesh," says Dr A K Susheela, director, Fluorosis Research and Rural Development Foundation. Nearly six million children below 14 now suffer from dental, skeletal and non-skeletal fluorosis. "In Jhabua district, for example, bone deformities are common among children," says Gayatri Parihar of Vasudha Vikas Sansthan, an NGO working in the area.

Arsenic is the other big killer lurking in ground water, putting at risk nearly 10 million people. The problem is acute in Murshidabad, Nadia, North and South 24 Parganas, Malda and Bardhaman districts of West Bengal. In fact, the deeper aquifers in the entire Gangetic plains contain arsenic. Film-maker Saurabh Singh, who has made a film on arsenic-affected people in UP's Ballia district, says, the problem is so acute that almost every family has been affected. "Most people are suffering from



skin rashes, some have lost their limbs. Many are dying a slow death due to arsenic-induced cancer." High nitrate content in water is another serious concern. Fertilisers, septic tanks, sewage tanks etc are the main sources of nitrate contamination. The groundwater in MP, UP, Punjab, Haryana, Delhi, Karnataka and Tamil Nadu has shown traces of nitrates. "In Bangalore, for example, the nitrate content in newly developed areas is very high," says Shashirekha, chief chemist, department of mines and geology, Karnataka.

However, it's bacteriological contamination — which leads to diarrhoea, cholera and hepatitis — that is most widespread in India. A WaterAid study of 950 sources of water in 300 villages revealed the presence of both fecal coliforms and fluoride in alarming proportions. "A bacteriological analysis

of the water in Bangalore revealed 75% borewells were contaminated," adds Shashirekha. Iron, hardness and salinity are also a concern. Nearly 12,500 habitats have been affected by salinity. "In Gujarat, it's a major problem in coastal districts. Often, babies die of dehydration and there are major fights in villages for freshwater. Some villages have seen 80% migration due to high salinity," says Nafisa Barot, executive director of Uthani, an NGO.

MONEY DOWN THE DRAIN

Health is not the only issue: impure water is a major burden on the state as well. Till the 10th Plan, the government had spent Rs 1,105 billion on drinking water schemes. Yet it's the poor who pay a heavier price, spending around Rs 6,700 crore annually on treatment of waterborne diseases.

COST TO NATION

Rs 2,400 cr
economic cost of waterborne diseases annually

37.7 million people
affected by waterborne diseases every year,
75% are kids under five

1.5m children die of diarrhoea

73m working days lost

Rs 6,700 cr
spent on treatment by rural poor

Source: WaterAid India

THE WAY AHEAD

Experts say there are several ways to tackle the crisis. There is an urgent need to look for alternative sources of potable water in places where water quality has deteriorated sharply. Community-based water quality monitoring guidelines should be encouraged. As Barot says, "People should be encouraged to look at traditional methods of protecting drinking water sources; at times they work better."

Also, in places where groundwater has arsenic or fluoride, surface water should be considered as an alternative. At least one or two safe drinking water sources in each village need to be protected. Simple steps like these could go a long way in saving lives.

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