

The different shades of water woes

THREAT TO HEALTH High levels of magnesium, calcium in water causing hair loss, skin diseases

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GHAZIABAD: Life is not a cakewalk for the residents of Ghaziabad. People have to toil to make arrangements for their daily necessities, which in an ideal place should not have bothered them. Water, which is a basic necessity, comes at cost. The city residents are already battling with 124MLD shortage of daily water supply. To make arrangements for the required amount of water, they have to shell out extra on alternative options. But the most dangerous fact is that the water being supplied is a risk to people's health as it is contaminated and can lead to several health complications.

As per the Uttar Pradesh Pollution Control Board (UPPCB), TDS (total dissolved solid) level of around 500 mg/litre is recommended while TDS of around 2,000 mg/litre is a benchmark in areas which have no alternative source of water. But most of the areas in Ghaziabad have TDS level between 1,000 and 2,000. Hard water has forced authorities to bank on Ganga water supplies. But this does not suffice and falls short by around 35MLD.

A majority of households and high-rise residential societies use submersibles and motor pumps to draw groundwater to meet their demands. They have installed RO systems, water softening plants, water filters and some of them rely on packaged water. "Water quality is a



Orange-coloured water flows through submersibles at one of the pockets at Site IV industrial area (extreme left) while residents of Lohiya Nagar are treated to yellow water.



Residents of Brij Vihar locality in Ghaziabad display the muddy water they get in their area.

SAKIB ALI/HT PHOTOS

AT A GLANCE

150 High-rises in Ghaziabad

Areas where Ganga-water is supplied: Indirapuram, Vaishali, Vasundhara, Kaushambi, Delta-colonies such Ramprastha, Brij Vihar, Ram Puri, Surya Nagar etc.

72MLD Present Ganga water supply

35MLD Shortfall of Ganga water supply

2 paise/litre

Ganga water cost to UP Jal Nigam

Most households and high-rises extract groundwater through submersibles and motor-pumps

52.56 hectares

Water bodies occupy 52.56 hectares of land in municipal areas

11 hectares of water bodies have been encroached upon

December 2013 Deadline for supply of 100% Ganga water for drinking purposes

TDS LEVEL

TDS levels measured at Site IV industrial area in trans-Hindon

1,150 mg/litre April, 2012

2,000 mg/litre April, 2013

500 mg/litre Recommended TDS level

In case of no alternate source of water 2,000 mg/litre

SOURCE: UP POLLUTION CONTROL BOARD

big issue. We have to get the TDS levels checked every two-three months from private laboratories which ranges from 2,800-3,200. We have spent a lot on RO systems. Still, health issues continue to plague us," said Alok Kumar of federation of association of apartment owners.

Even UPPCB scientists admit that presence of high levels of magnesium and calcium in water leads to hair loss, skin diseases and upset the digestive system. "Residents use RO systems and other devices which mostly separate essential minerals from water. RO also leads to wastage of water," a scientist from UPPCB said.

People also complain of sewage and muddy water getting mixed with the

regular water supply. In April, several people died in Loni after consuming contaminated water from overhead tanks. But the incident was downplayed by officials.

Reverse boring of industrial waste and chemicals into underground water has taken a toll in the posh Lohiya Nagar. The site-IV industrial area is worse as the groundwater is highly contaminated. There have been instances where orange and yellow coloured water has been found. "There was a massive protest by residents in 2010 when the administration had failed to check the industries involved in reverse boring of contaminated water into the groundwater. Although the treatment procedure has started, we still battle dirty water which has high-level of chromium

used by electro plating industries," said Pawan Goel, a former municipal councillor from Lohiya Nagar.

Even the Hindon river has become unsafe for aquatic life where high levels of bio-chemical oxygen demand (BOD) in upstream areas and downstream areas was found. Negligible presence of dissolved oxygen (DO) has led to disappearance of aquatic life. The scenario worsened as major drains flow directly into the river.

"The aquatic life has almost vanished from river Hindon due to its contamination. Groundwater quality is getting affected as industries discharge their waste without its treatment. In states like Goa, a number of industries have come up with a collective ETP," said Vikrant Tongad, an environment activist.

QUALITY OF HINDON RIVER WATER IN 2013

For aquatic life to survive, there is a need for 4mg/litre of DO in water. BOD levels should not exceed 5mg/litre

Month	Upstream at Karhera		Downstream at Chijarsi	
	DO*	BOD**	DO	BOD
January	0	135	0	125
February	0	150	0	180
March	0	155	0	185
April	0	52	0	70
May	0	30	0	35

(* Dissolved Oxygen, **Biochemical Oxygen Demand, Figures in mg/litre)

SOURCE: UP POLLUTION CONTROL BOARD

NEXT

We take a look at how Noida plans to become a zero-discharge city through recycling.