

Community awareness on Arsenic contamination in Khagaria, Bihar

As part of the Development Alternatives initiative to provide arsenic-free drinking water in rural households, supported by the Department of Science & Technology Government of India, a series of awareness programmes and focused group discussions were held in 10 villages of Khagaria District of Bihar from 15 to 18 of March 2023.

The discussions were part of DA's efforts to make people aware and appraised of the water contamination problem in their area and provide a low-cost solution for efficient filtration of arsenic from drinking water. 10 villages across Purvi Tatha Panchayat, Paschimi Tatha Panchayat, and Banni Panchayat in the Khagaria District were surveyed for further activities. With the help of interactions & focused group discussions, villagers were made aware of why removing arsenic from drinking is essential and how it could reduce the burden of several health conditions. This will not only increase the productivity of the villagers but also enable people to lead healthy lives.



Community interaction with villagers of Kalisthan Banni village, of Banni Gram Panchayat

Arsenic-contaminated drinking water is the primary cause of skin, lung, bladder, and kidney cancer, as well as other adverse health effects such as skin manifestations, gastrointestinal disorders, and many other.

Through detailed interactions, it was found that most people depend on handpumps & borewells for drinking water. A handful of families buy RO-filtered water from private suppliers but still need to be made aware of the quality of water provided. Due to visible iron oxide stains on tiles & cloths, everyone is aware of the presence of Iron, but only a few know about Arsenic presence.

To provide clean drinking water, DA, with the help of DST, will set up arsenic removal filters in 5 villages of Khagaria District to ensure that people in the area can access safe drinking water. After installation & monitoring, the plant will be handed over to a locally formed village committee responsible for daily operations and regular maintenance of the filter. For this purpose, a nominal amount of Rs. 100 to 300 will be contributed by each family per month, the decision of which will be taken by the committee.



Community interaction with two villages combined – Chaidha and Purvi Chaidha village of Purvi Tatha Gram Panchyat

Panchayat members and villagers in the area enthusiastically participated in the group discussions. They contributed with their outputs on what help they needed from DA and any other future aspect of the filter plant. The villagers would run the filter plant by contributing a small amount, and they will manage the whole process by forming

a committee. The meeting was fruitful, as people from different villages welcomed the move and were engaged in the group discussions.

The committee will comprise 10-15 members from the village & will have participation from youth, women, and men. Teachers & doctors, if available, will be motivated to join the committee. Drinking water is a primary need and will be required by everyone, 365 days, regardless of holidays or festivals. Hence to run the filter regularly, the village is advised to recruit youth in the committee who can take ownership. The operators will be paid a salary which will be covered by the collection made by each family per month. DA has advised the village to take a call on the salary amount and choose the members of the committee. It has been made clear that DA will only provide support & guidance as and when needed and never participate in decision-making and collecting money.

For choosing the location of the filter, DA advised the villages to identify a community space that is easily approachable by all 'Mohallas' and has enough open area to accommodate 80 to 100 people at once. Once the villagers decide on- where to set up the filter, identify committee members, and how to manage its day-to-day work, an official letter will be signed by the Panchayat Pradhan approving the location & area of panchayat land on which the filter will be installed.