



### DA team visits village in Bihar to test the Arsenic level in Ground Water

**W**ater is one of our most basic needs, but what if we don't have a single potable drop?

Even though groundwater is the primary source of drinking water in rural Bihar, accounting for more than 80% of all drinking water, the population exposed to arsenic's harmful effects is very large. 18 districts in the state of Bihar have been reported to have high arsenic contamination in groundwater. According to the Ministry of Water Resources of the Government of India, arsenic poisoning has severely affected 1600 households in 67 blocks of 18 districts across 18 states.

Development Alternatives team visited one of the villages in Khagaria District in the middle of February, in Bihar. The team tested the quality of water from one of the hand pumps (using an Arsenic testing kit) to see if it was potable or not. The results were obvious, as it had arsenic contamination above the WHO/BIS permissible limit-10 µg/L. The village's concern about the arsenic contamination in the groundwater sources is quite disturbing.

In the world of developing new technologies, the very basic need for potable water remains unsatisfactory for the people of Khagaria as well as other districts of Bihar. Development Alternatives has planned to design a technology-based community and household-based water filter to remove arsenic contamination from drinking water and to provide safe potable water to the inhabitants of the aspirational district, Khagaria. The water samples from various locations from the Khagaria district will be tested and the ground data will be collected in collaboration with the field organisation, SAMTA NGO, which has been working on awareness of water quality among rural communities for more than 30 years.

During the visit, the team also had a discussion with Dr. Ashok K. Ghosh (Chairman, BSPCB) about his findings on arsenic contamination in groundwater and food chains in Bihar. He shared the nature of health impacts caused due to arsenic contamination. As per the study conducted by Mahavir Cancer Sansthan and Research Centre (MCSRC), Patna, Bihar in 2019. The institute has registered more than 15,000 cancer cases. The epidemiological data showed that most of the cancer cases reported were from the cities or towns which are located near the river Ganga. Most incidences of cancer cases were from the districts—Buxar, Bhojpur, Saran, Patna, Vaishali, Samastipur, Munger, Begusarai Bhagalpur, etc.

In the coming months, DA will be working on creating awareness about water quality and providing technical solutions for making an “Arsenic Mukht village”.