

New drinking water project for the poor

If a research project of the IIT-Madras bears fruit, clean drinking water might just become an affordable commodity for the poor. The project, aimed at coming up with a low-cost, low-maintenance water filtration system to filter water and remove pathogens from it, seems to have achieved just that. What's more, researchers say their solution is so simple that every household can build its own unit.

And simple it is. The 'system' looks like a normal water barrel, one of the blue ones you might be familiar with. What's inside though, is what makes it special. "There are layers of blue metal (jalli stones), charcoal and sand. We have used a cheap plastic mesh. This can take out anything from particulate matter to dissolved substances to pathogens from the water and deliver water that is up to 98 percent pure," says Ivo Romauld, a research associate on the project.

The project is being run by a team of three researchers under the Environmental and Water Resources Division of the Department of Civil Engineering at the IIT-Madras, and is funded by International Development Research Centre, through the University of Guelph in Canada.

Though it may look simple, the project has taken over two years to perfect. A plastic kodam(pot) with a tap sticking out from the lower portion is a sign of that. "We first tried to do it with the kodams. Then, we found that their capacity was just not enough. So we moved on to buckets and on to the current barrel configuration. If the capacity isn't enough, the poor people are not going to use it," says C Ramprasad, another research associate.

The researchers say the water filter costs about Rs 700 to Rs 800 to make, and is easy to replicate. "We have been trying the filter with slum dwellers at the Mylai Balaji Nagar near Pallikarani, who have no water and end up drinking unprocessed water from the lake. We have given residents of that locality 60 of these units at a highly subsidised rate. They can also make these if they want to because it is very cheap and easy, and can be made anywhere in the country," says Ramprasad.

The research team has also developed a Rapid Water Testing Kit, which is equipped to run tests across 14 parameters for more than 50 samples. This kit costs less than Rs 4,000 a unit and has been distributed widely across Krishnagiri District (Exp News Serv 8-2-12)