

KNOW THE FACTS!

More than four crore people in rural India drink water contaminated by heavy metals, iron, fluoride, arsenic, and nitrate.

7 States - West Bengal, Rajasthan, Bihar, Punjab, Assam, Uttar Pradesh and Tripura – have more than 10 lakh affected people depending on metal-contaminated water.

Ministry's data reveals that 1.47 crore (14.7 million) people are at risk due to arsenic contaminated drinking water.

The WHO has warned that long-term intake of such water leads to arsenic poisoning with cancer of skin, bladder, kidney or lung, dental/ Skeletal Fluorosis. Rural masses are affected with water borne diseases, causing economic burden on Indian society.



SOLUTIONS!

CSIR-CMERI has the solutions to provide

SAFE DRINKING WATER

free from iron, fluoride, arsenic. CSIR-CMERI's unique, compact filtration system provides an opportunity to improve the health of masses in even the most disadvantaged environments.



CSIR-CMERI has developed the following technologies for the societal benefit of the rural Indians.

CSIR-CMERI's Initiatives



High Flow Rate Iron Removal Filter

Flow rate 3000 L/Hr, Removes iron of maximum 20 ppm to below the desired permissible limit (0.3ppm) of drinking water. 3-Stage purification. Regeneration of the media by the back-wash facility. Licensed to 10 Industries



Com. Level Iron removal plant

Removes iron (flow rate 800 L/Hr) of maximum 20 ppm to below the desired permissible limit (0.3ppm) of drinking water. Licensed to 15 Industries. Deployed 50 Nos. at Bankura district, WB



Arsenic Removal Plant (700 L/Hr)

Removes Arsenic below the WHO limit (10 ppb), Geo-materials (media based adsorbent) used for removal. Licensed to 4 Indian Industries



Arsenic removal filter

Cartridge-base, flow rate 350 L/Hr. It removes Arsenic below the WHO limit (0.01 mg/L). Licensed to 5 Industries.



Fluoride removal plant

It can reduce F- conc. from ~ 8 ppm to below 1.5 ppm. Flow rate 700 L/Hr). Licensed to 5 clients.



Domestic Arsenic Water Filter

Water storage capacity ~ 25 litre
Filtering capacity ~1800 litre/cartridge
Cartridge Replaceable, Purification: 5-stage
Flow rate: 5 L/Hr



Domestic Iron Water Filter

Remove iron to the desired permissible limit (0.3ppm) of drinking water. Flow rate : ~ 2 L/hour(approx.), Storage capacity : ~ 10 L. Licensed to one Industry.



Domestic Fluoride Water Filter

Reduces F-conc. from ~5 ppm to below permissible limit (~1.5 ppm), flow rate ~5-6 L/Hr. Licensed to one Industry.



Safe disposal of Arsenic Sludge

It provides safe disposal of arsenic contaminated sludge obtained from arsenic removal water-treatment plants. Minimizes potential of arsenic to leach back to ground and mix with surface & under-ground water through solidification/stabilization using portland cement. Minimizes the effect of arsenic poisoning in human body



Waste Water Treatment Technology

Flow rate ~ 1000 L/ Hr, Dosing Pump, UV & Ozonator act as disinfectants, Back wash followed by rinsing method enhances the adsorbents life time, covering WHO's permissible limit i.e. pH, conductivity, hardness, TDS, alkalinity, SO4 etc.



Domestic Iron Arsenic Water Filter

Used in rural areas where groundwater is contaminated with iron and arsenic. Flow rate : 3 L/hr. (approx.) for family use. Naturally available materials used for removal. Completely a green technology