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.

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

**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 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.

**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 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.

**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.