



PANI WATER पानी

PHOTO-IRRADIATION AND ADSORPTION BASED NOVEL INNOVATIONS FOR WATER- TREATMENT

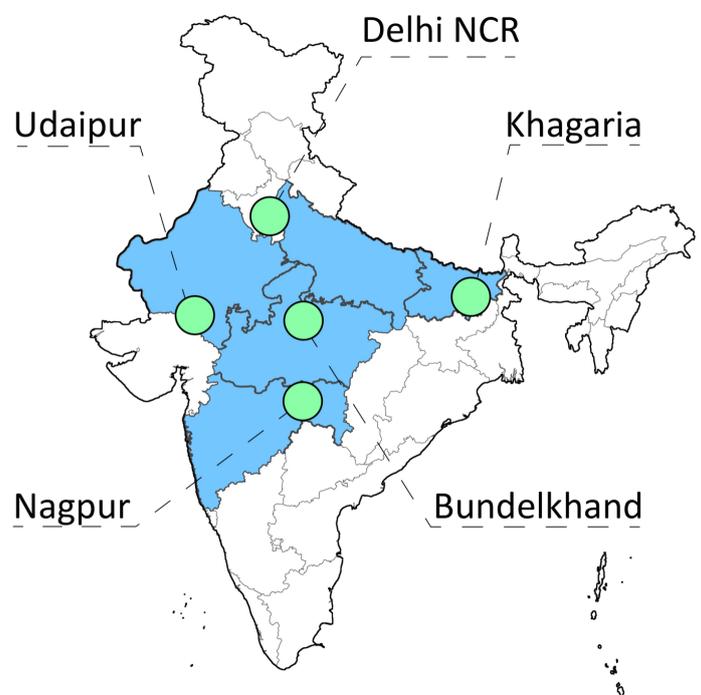


About us

Wastewater and drinking water in peri-urban and rural India is polluted by contaminants of emerging concern (CECs). The EU-funded **PANIWATER** project aims to develop, deploy and validate six different prototypes for the removal of chemical and biological contaminants from water, using Advanced Oxidation Processes.

WHERE WE WORK

The prototypes will be deployed in peri-urban and rural areas in India. The consortium will work closely with the communities at the fieldsites, and carry out water quality analyses, health and social impact assessments, and advocate for safe reuse of treated wastewater for irrigation, and preservation of drinking water sources.



TECHNOLOGIES...

...producing irrigation water from wastewater and grey water

1. Multifunctional reactor: A reactor integrating automatic mixing and dosage with two separate Advanced Oxidation Processes, based on the MITO3X® proprietary device. It is capable of treating 50 liters per day

2. Photo-electrochemical system: A solar-driven device capable of removing organic matter, microorganisms, and contaminants of emerging concern from wastewater at the point-of-entry. It is capable of treating 100 liters per day

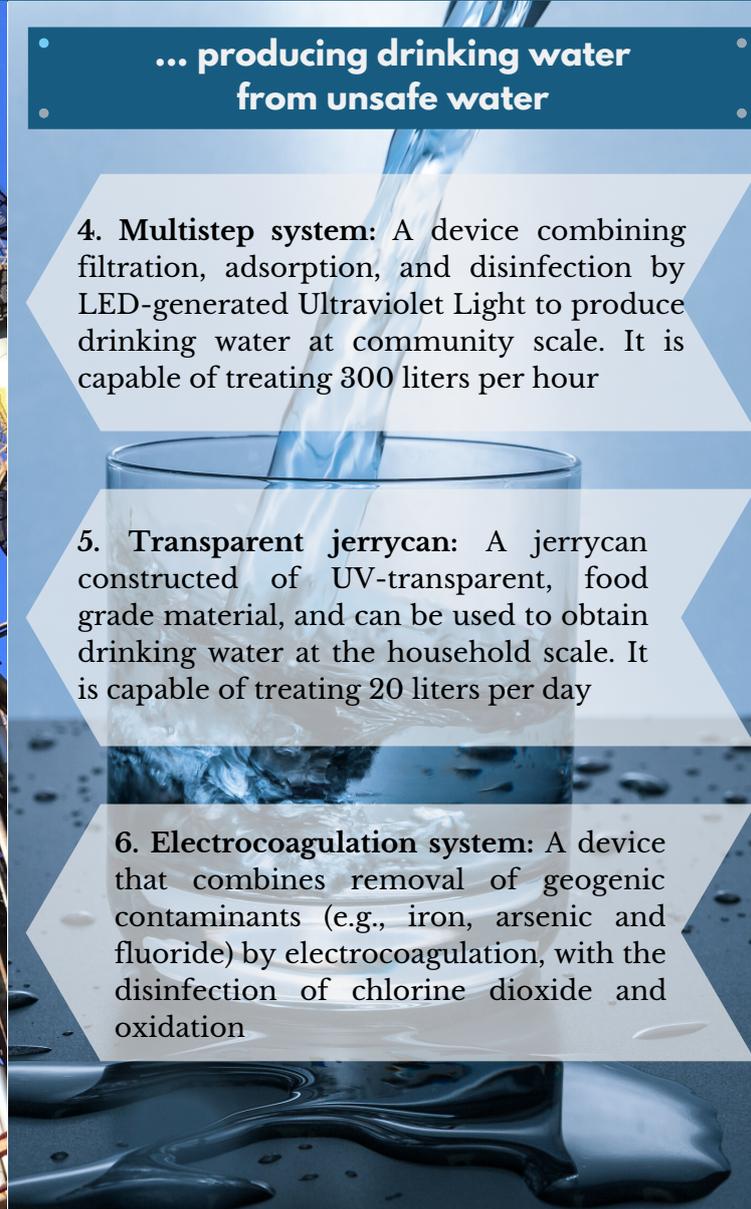
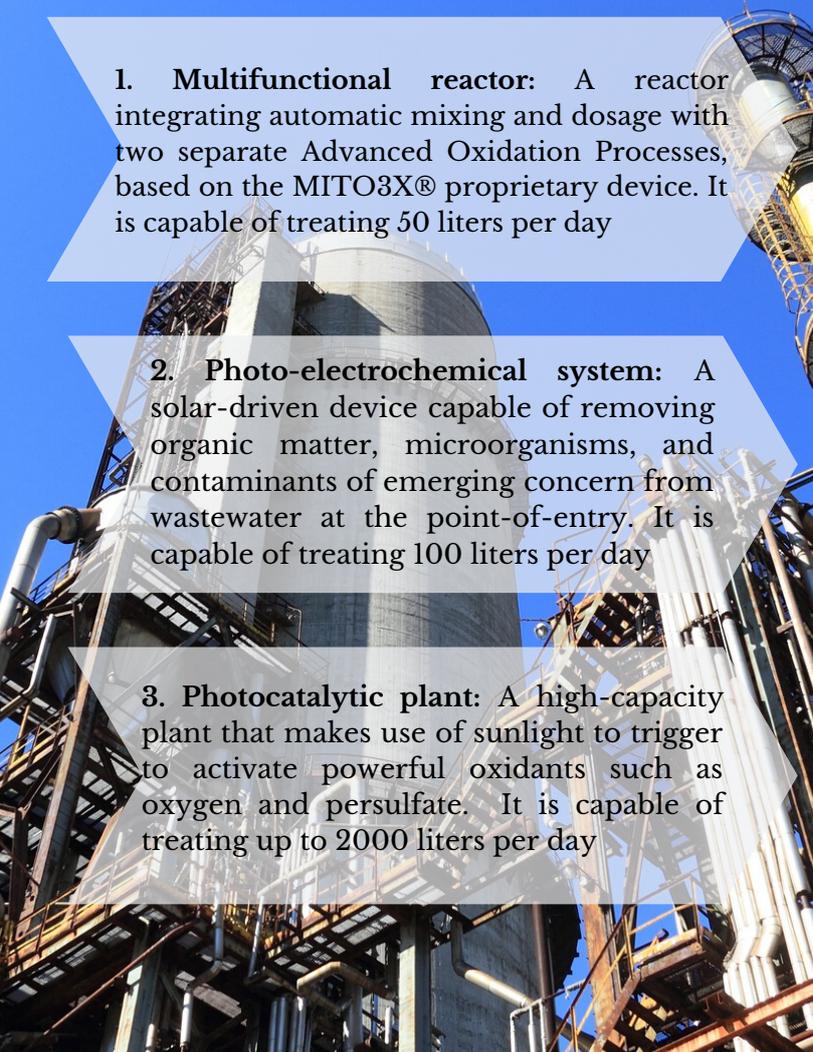
3. Photocatalytic plant: A high-capacity plant that makes use of sunlight to trigger to activate powerful oxidants such as oxygen and persulfate. It is capable of treating up to 2000 liters per day

... producing drinking water from unsafe water

4. Multistep system: A device combining filtration, adsorption, and disinfection by LED-generated Ultraviolet Light to produce drinking water at community scale. It is capable of treating 300 liters per hour

5. Transparent jerrycan: A jerrycan constructed of UV-transparent, food grade material, and can be used to obtain drinking water at the household scale. It is capable of treating 20 liters per day

6. Electrocoagulation system: A device that combines removal of geogenic contaminants (e.g., iron, arsenic and fluoride) by electrocoagulation, with the disinfection of chlorine dioxide and oxidation



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