Sustainable Water Extraction at Manipal University Jaipur

Water is an essential resource, and universities are increasingly at the forefront of implementing sustainable water extraction technologies to fulfil their requirements while reducing their ecological footprint.

Manipal University Jaipur, located in Jaipur, Rajasthan, exemplifies a higher education institution dedicated to sustainable water management practices. The university employs advanced methods for extracting water from aquifers. Balancing the water demands of a university campus with the imperative of responsible environmental stewardship presents significant challenges. Manipal University Jaipur guarantees that the extracted water adheres to quality standards suitable for various applications, including drinking, irrigation, and research. The institution is actively working to reduce the energy consumption associated with water extraction and distribution systems, thereby lowering greenhouse gas emissions. Furthermore, Manipal University Jaipur is adopting technologies and practices aimed at enhancing water efficiency and minimizing waste. The university meticulously manages aquifer extraction to sustain groundwater levels and safeguard adjacent ecosystems. Sophisticated monitoring systems are in place to oversee water levels and quality, enabling timely interventions should any issues arise, thus ensuring the aquifer remains a dependable long-term water source. High-efficiency pumping systems significantly decrease the energy consumption associated with water extraction. The implementation of variable frequency drives and advanced control systems ensures that pumps function at their optimal capacity, thereby reducing energy waste. To maintain water quality, Manipal University Jaipur utilizes cutting-edge treatment methods, including filtration, chlorination, and ultraviolet (UV) disinfection, which provide safe drinking water while limiting the reliance on chemical additives.

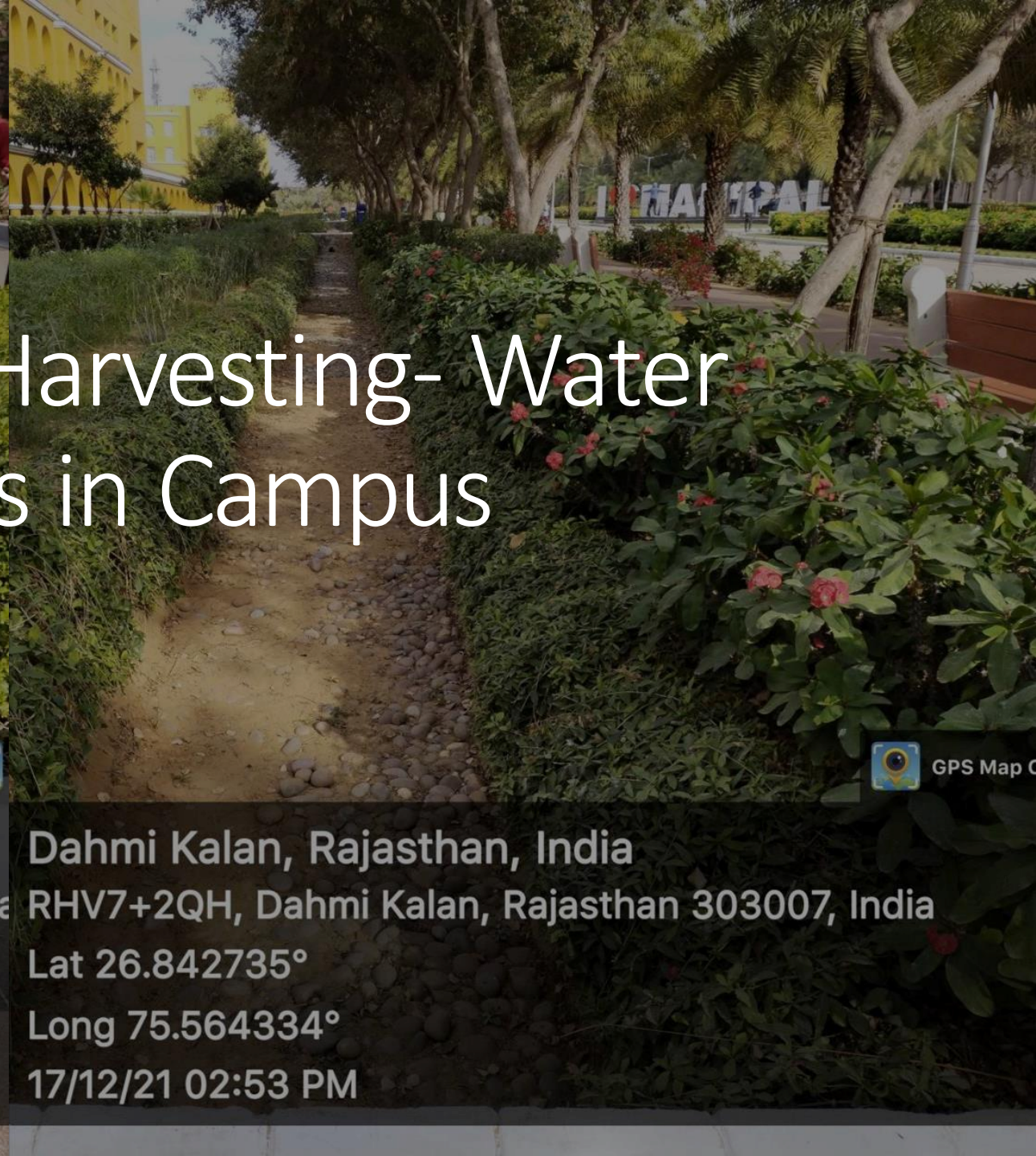
The strategy employed by Manipal University Jaipur for sustainable water extraction from campus aquifers exemplifies a commitment to environmental stewardship and responsible water management within the academic sector. By harmonizing its water requirements with conservation initiatives and the use of efficient technologies, the university illustrates the feasibility of fulfilling water needs while protecting the environment.

Water Conservation Facility at MUJ Campus:Through Rain Water Harvesting

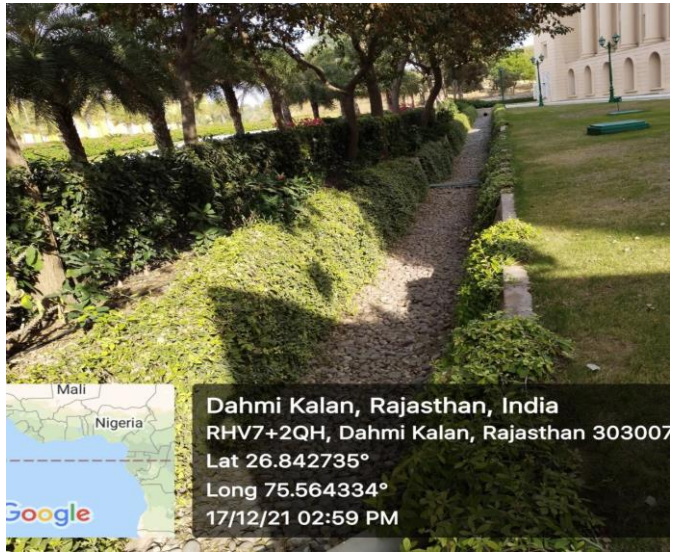
USAGE OF RECYCLE WATER

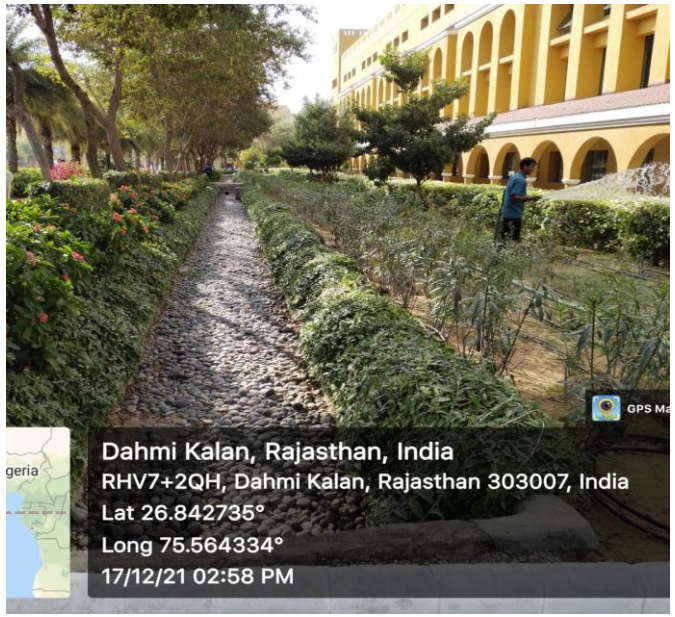
- Zero Water Discharge Campus (Water Recycling)
- Sludge From STP Used As Manure For Landscaping. Reusing the debris waste for the pathways and road areas base compaction
- Vehicle Washing
- Gardening and Horticulture

Rainwater Harvesting- Water Canals in Campus

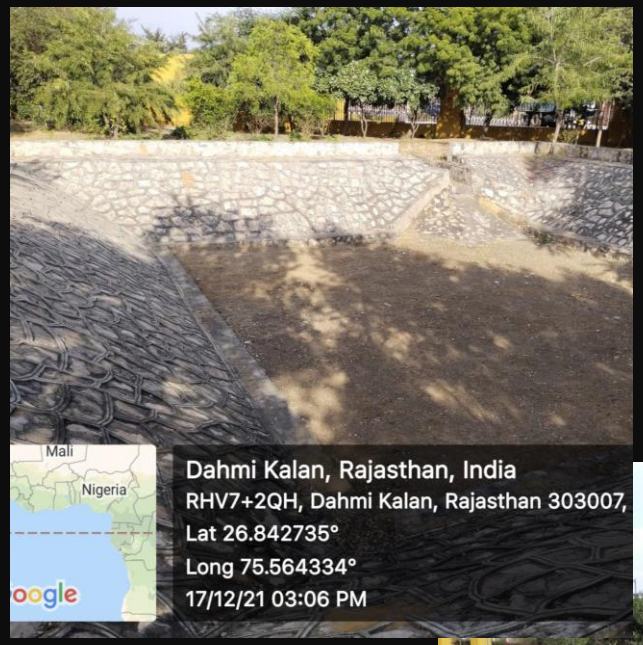


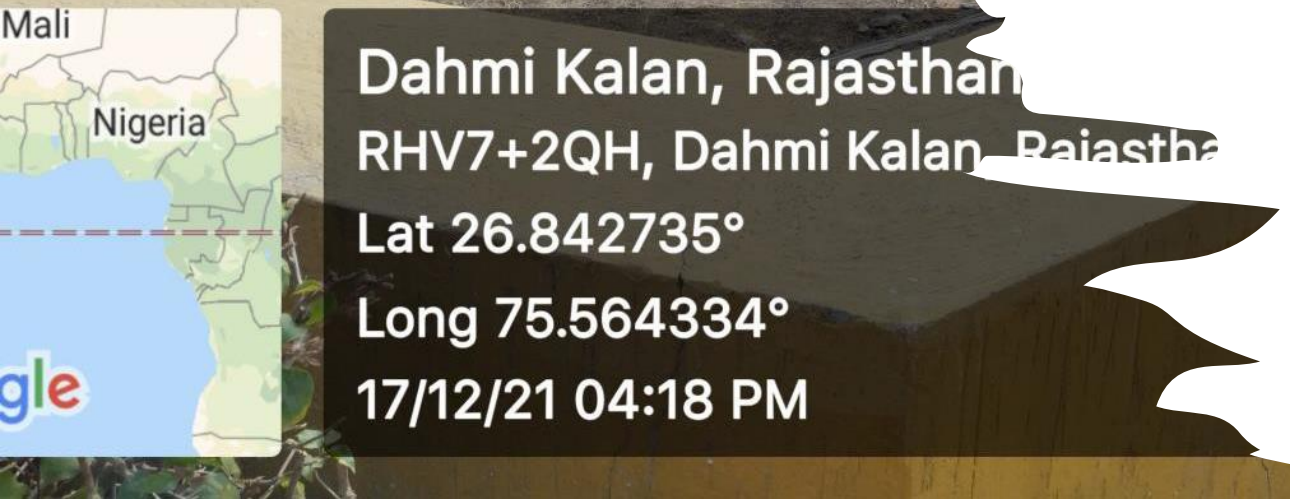
More than 14 KM of Water Canals in University for Water Harvesting



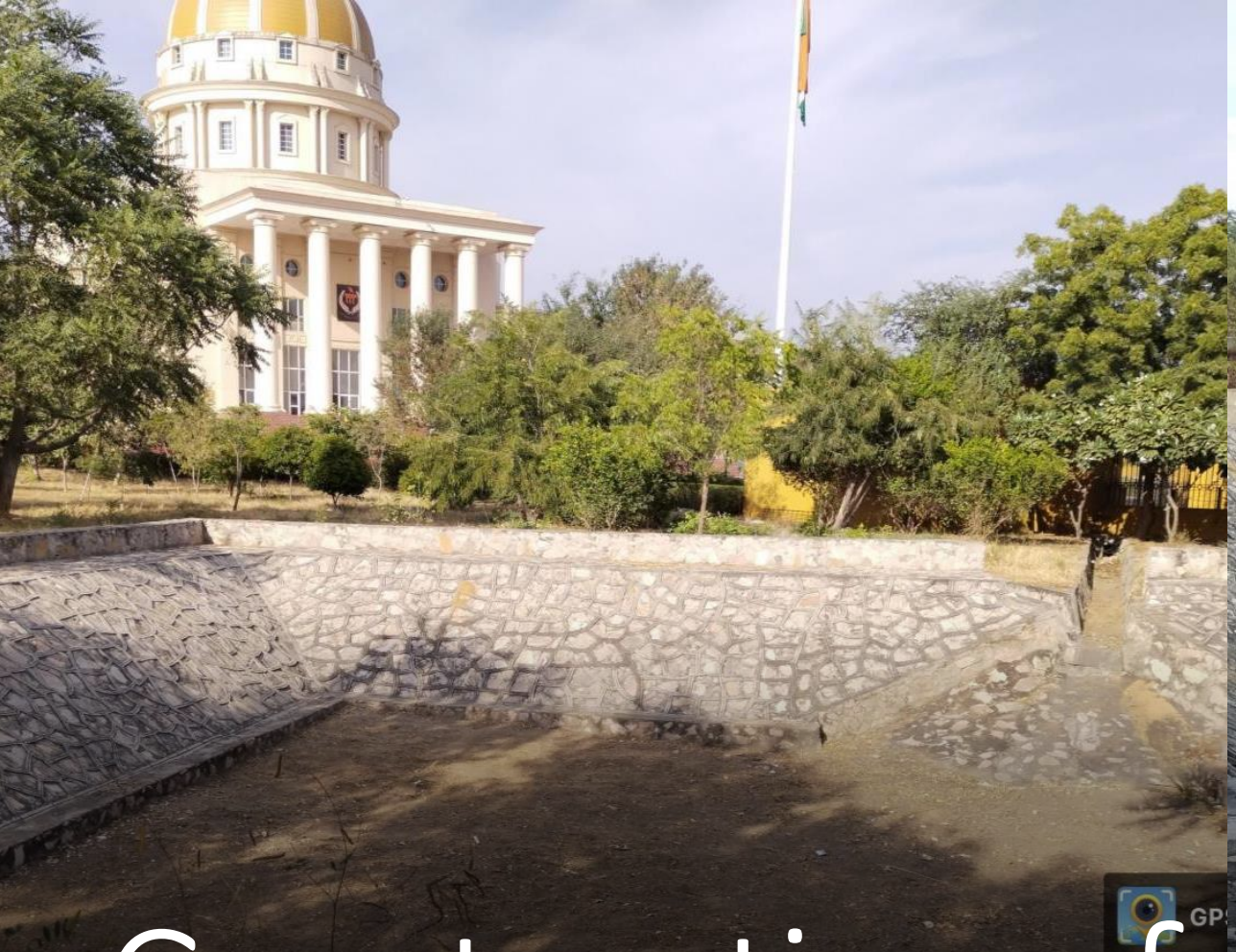


Peon Well Recharges Through Ponds



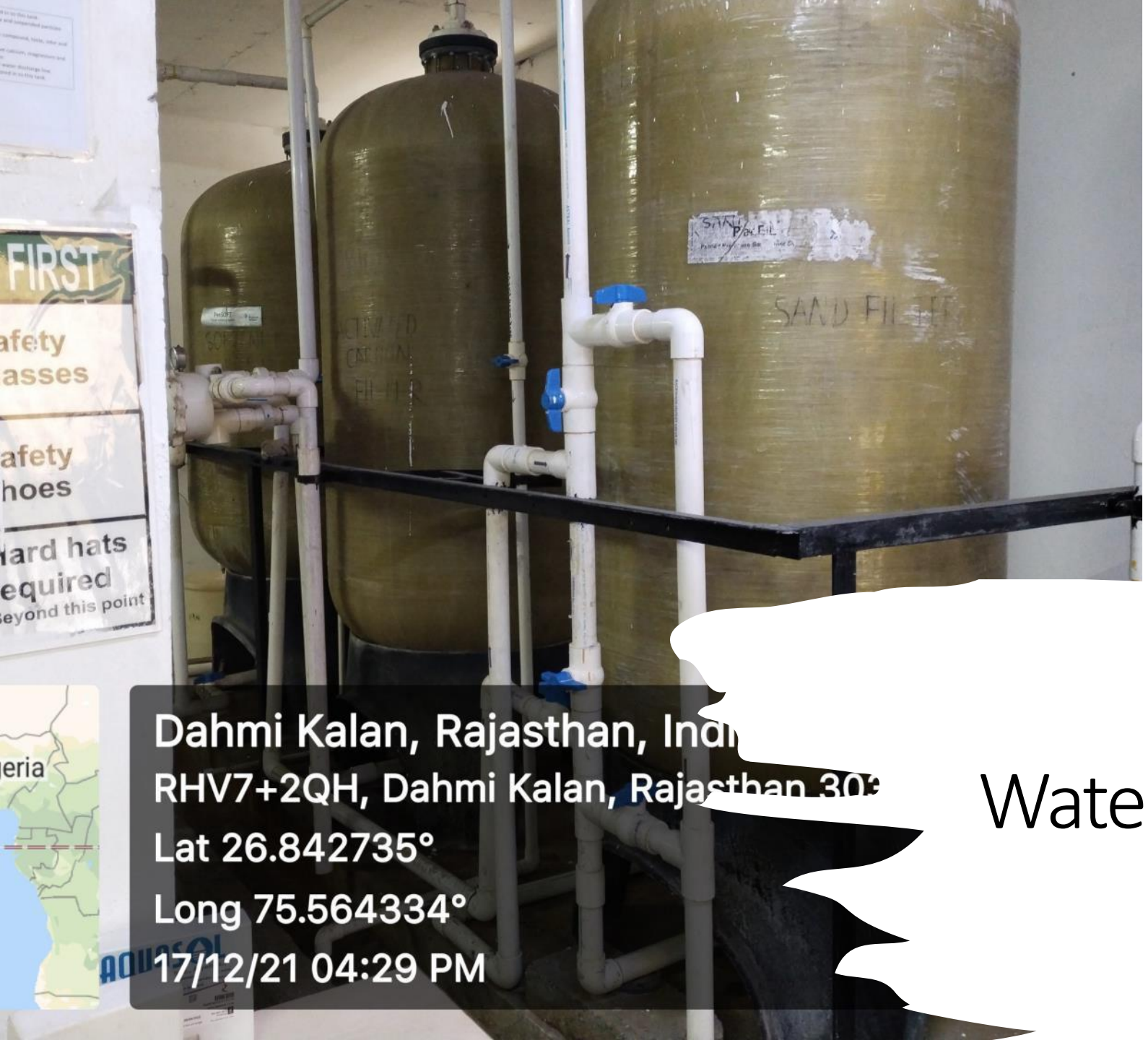


Construction of Ponds



Construction of Ponds

Water Gathered in the Pond During the Process of Rain Water Harvesting



Water Treatment Plants

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Water Distribution System