

Ahmedabad based Kankaria Becomes India's First Water Neutral Coaching Depot; Does the Wonder by Using Plants to Purify Water

Depot Saves 1.60 Lakh Litres Daily through Wastewater Treatment and Reuse, Reducing Freshwater Dependence

Kankaria Depot Promotes Environmental Protection and Greener Railways through Eco-Friendly Phytoremediation Technique and Advanced Multi-Stage Purification

Posted On: 17 APR 2026 6:13PM by PIB Delhi

In a significant step towards environmental sustainability, the Kankaria Coaching Depot has emerged as a 'water neutral' Railway depot, showcasing how innovative practices can transform traditional railway operations into eco-friendly models. The initiative highlights a major breakthrough in water conservation, with the depot saving nearly 1.60 lakh litres of water - equivalent to over 300 household tanks - every day through advanced treatment and reuse systems.

At the heart of this transformation is a modern wastewater treatment system based on phytoremediation, a natural process where plants are used to purify water. The depot has successfully implemented this eco-friendly technology to treat wastewater generated from routine activities such as coach washing and maintenance. Instead of being discharged, the water is cleaned and reused, significantly reducing dependence on freshwater sources.

The system follows a scientifically designed multi-stage process, combining natural and technical methods to ensure effective purification. Using wetland-based treatment, plants play a crucial role in absorbing impurities and improving water quality. In the final stages, the treated water undergoes carbon and sand filtration along with UV disinfection, making it safe for reuse in operational activities.

This initiative not only supports environmental conservation but also delivers economic benefits by reducing water consumption costs. The project aligns with the standards set by environmental authorities, ensuring that sustainability and compliance go hand in hand.

With daily savings translating into an annual conservation of around 5.84 crore litres of water, the Kankaria Coaching Depot stands as a model for efficient water management in Indian Railways. By adopting such innovative and sustainable practices, it sets a strong example of how infrastructure can evolve to meet the demands of environmental responsibility while maintaining operational efficiency.

The transformation of Kankaria Coaching Depot into a water neutral facility reflects a broader shift towards greener Railway operations, reinforcing the commitment to sustainable development and resource conservation.

Dharmendra Tewari/ Dr. Nayan Solanki/ Ritu Raj

(Release ID: 2253064) Visitor Counter : 299

Read this release in: Urdu , हिन्दी , Gujarati , Kannada