



Critical to pair tree-planting drives with water-wise technologies: Dake Rechtsand

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In view of increasing tree-planting drives across the MENA region, Dake Rechtsand, a company specializing in sustainable solutions for water conservation and desert farming, has emphasized the need for greater adoption of water-efficient practices. This imperative boils down to the region's pressing water scarcity, according to the company.

"The MENA region is home to 6.3% of the world's population, but only access to 1.4% of the world's renewable freshwater. This classifies as acute water scarcity. At the same time, the region grapples with deforestation, which needs redressal through tree-planting drives. Therefore, it's critical to pair the drives with water-wise technologies, so that they do not aggravate existing scarcity," **said Chandra Dake, Founder and CEO of Dake Rechtsand.**

There are multiple benefits associated with trees: Oxygen supply, air purification, natural cooling, emission reduction, food, fodder, money, and more. According to Biologist T M Das, a tree's economic value over a 50-year life cycle is a whopping \$710,260. In desert regions like MENA, the value is significantly higher, considering the complexities involved in sustaining a tree in optimal condition.

Conventional tree planting techniques aren't feasible in the MENA region due to desert soil, high salinity, arid/semi-arid climate, and seepage, among other geographical and climatic deterrents. While the yield is low, the required water input to achieve it is significantly high. This status quo needs to be addressed immediately, with tree planting drives increasing across the region as part of the larger green and sustainability goals.

Drip irrigation, which is known to reduce water use by 30-65%, is a plausible solution, but it does accompany sizable initial costs and labour. Mulching techniques, too, are actionable if the water reduction target is about 25%. BioChar, which retains water for extended periods and increases yield, is another promising solution, but biomass-oriented sourcing runs into production challenges in the region.

Taking stock of the advantages and drawbacks of the aforementioned practices, Dake Rechtsand has developed its Breathable Sand technology. The low-cost product retains water at the roots, where it is needed, but also allows air to circulate freely, thus oxygenating roots and enabling high yield. The anti-seepage properties of Breathable Sand also lead to greater fertilizer preservation. This water-saving technology is predicated on the idea of achieving holistic sustainability.

"We subscribe to the notion that the best time to plant a tree was 20 years ago. The second-best time is now. But we also understand that tree-planting proponents need a cost-effective, water-efficient, and easy-to-deploy solution that can make their drives environmentally responsible and sustainable. To them we offer the Breathable Sand," added Chandra Dake, in closing.

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