



## Rapid Fire Current Affairs

### Deccan Queen Train



The **Deccan Queen train**, which commenced **service on June 1, 1930**, holds a special place in the history of the **Great Indian Peninsula Railway**, later known as the **Central Railway**. Over the course of its 92-year history, the train has transformed from a means of transportation to an institution that connects generations of passengers. Over the years, the train witnessed numerous advancements, such as the introduction of a dining car, roller bearing coaches, and the adoption of a distinctive cream and Oxford blue color scheme. It set records as **India's first superfast, long-distance electric-hauled, vestibuled train**, and even had a **dedicated women-only car**. Today, the Deccan Queen is renowned for its **punctuality and popularity** among commuters traveling between Pune and Mumbai.

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### Green Panacea for Crude Oil Wastewater Restoration

The **Institute of Advanced Study in Science and Technology (IASST), Guwahati** has made significant progress in addressing the environmental challenges posed by the **disposal of formation water, a byproduct of crude oil excavation and processing**. Formation water contains **harmful components and chemicals that can deteriorate water quality and harm aquatic life** when released into rivers and streams. Through rigorous experimentation and research, researchers from IASST have **formulated a mixture comprising plant-based biomaterial, biosurfactant (secondary metabolites of microbes), and NPK fertilizer**. This innovative mixture has **demonstrated the ability to restore formation water** within a short time frame. The team has filed an **Indian patent for this development**.

This "wonder mixture" not only prevents environmental pollution caused by the formation of water but also **renders the treated water reusable for various purposes**. By utilizing this approach, the harmful effects of the formation of **water can be mitigated, leading to a sustainable future**. Moreover, the **treated water can contribute to the green revolution by enhancing crop production** and meeting the **increasing global food demand**.

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## E -Cigarettes -The Complexities of Vaping: India's Approach and Concerns

In India, the **Union Ministry of Health** has directed [OTT platforms](#) to promote **anti-tobacco health messages and warnings on [World No Tobacco Day](#)**, emphasising the amended rules under the **Cigarettes and Other Tobacco Products Act, 2004**.

However, the **regulations do not cover e-cigarettes or vapes containing nicotine**, which were banned in **2019 due to health and safety concerns**. Despite the ban, these devices **continue to enter the country through the black market, particularly from China**.

[E-cigarettes](#), also known as **electronic cigarettes**, and vapes are electronic devices that **vaporise a liquid solution (e-liquid) containing nicotine, flavours, and other chemicals**. They are designed to simulate the experience of smoking traditional cigarettes but without burning tobacco. Instead of producing smoke, **e-cigarettes and vapes produce vapour, which is inhaled by the user**.

Read more: [World No Tobacco Day](#)

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## Desiccation-Tolerant Plants in India's Western Ghats: Potential for Agricultural Applications

[India's Western Ghats](#), a biodiversity hotspot, is home to a **remarkable discovery of 62 desiccation-tolerant vascular (DT) plant species**. DT plants possess **a unique ability to withstand extreme dehydration, losing up to 95% of their water content**, and then revive when water becomes available again.

A recent study shed light on the **abundance of desiccation-tolerant species in the Western Ghats**, surpassing the previously known count of nine species. The research provides an inventory of these species, highlighting their habitat preferences, with **16 species being endemic to India and 12 exclusive to the Western Ghats**. Notably, the study identifies **rock outcrops and partially shaded forests**, including tree trunks, as **crucial habitats for these resilient plants**. **Nine genera of DT plants are reported as new, also in a global perspective, with *Tripogon capillatus* representing the first record of an epiphytic DT angiosperm**.

By studying these **desiccation-tolerant plants**, researchers hope to gain insights into the biodiversity and ecology of the Western Ghats and contribute to the conservation of these species. Moreover, understanding the mechanisms behind their ability to tolerate dehydration could pave the way for developing drought-resistant crops that require less water. The study opens up new possibilities for **agricultural applications, particularly in regions with water scarcity**.

Read more: [Western Ghats](#)