Tropical Rainforests can Survive Global Warming

Source: TH

A recent study by IIT Kharagpur reveals tropical rainforests' **potential resilience to** global warming.

- The study examined **fossilised tropical rainforests from Gujarat's Vastan coal mines** , dating **back 56 million years** to the **Palaeocene-Eocene Thermal Maximum (PETM)**, an era of extreme global warming.
    - The coal layers in Vastan are fossilised tropical rainforests with rich plant, pollen, mammal, and insect remains from the **PETM era** when India was a tropical island **with high CO_2 levels.**
    - **PETM,** a short interval of maximum temperature lasting approximately 100,000 years during the late Paleocene and early **Eocene epochs (roughly 55 million years ago).**
- Despite high atmospheric CO_2 **during the PETM, tropical rainforests not only survived but diversified,** likely sustained by "**rainfall-buffered temperature**"
    - **Rainfall-Buffered Temperature**: Increased rainfall during warming periods likely lowered temperatures, sustaining the rainforests.
- **Rainforest:** A rainforest is an area densely populated with tall, mostly evergreen trees (e.g Amazon and Western Ghats) and receives substantial rainfall.
    - They are primarily situated between tropics (**Cancer** and **Capricorn**). These rainforests are found in Central and South America, western and central Africa, western India, Southeast Asia, the island of New Guinea, and Australia.

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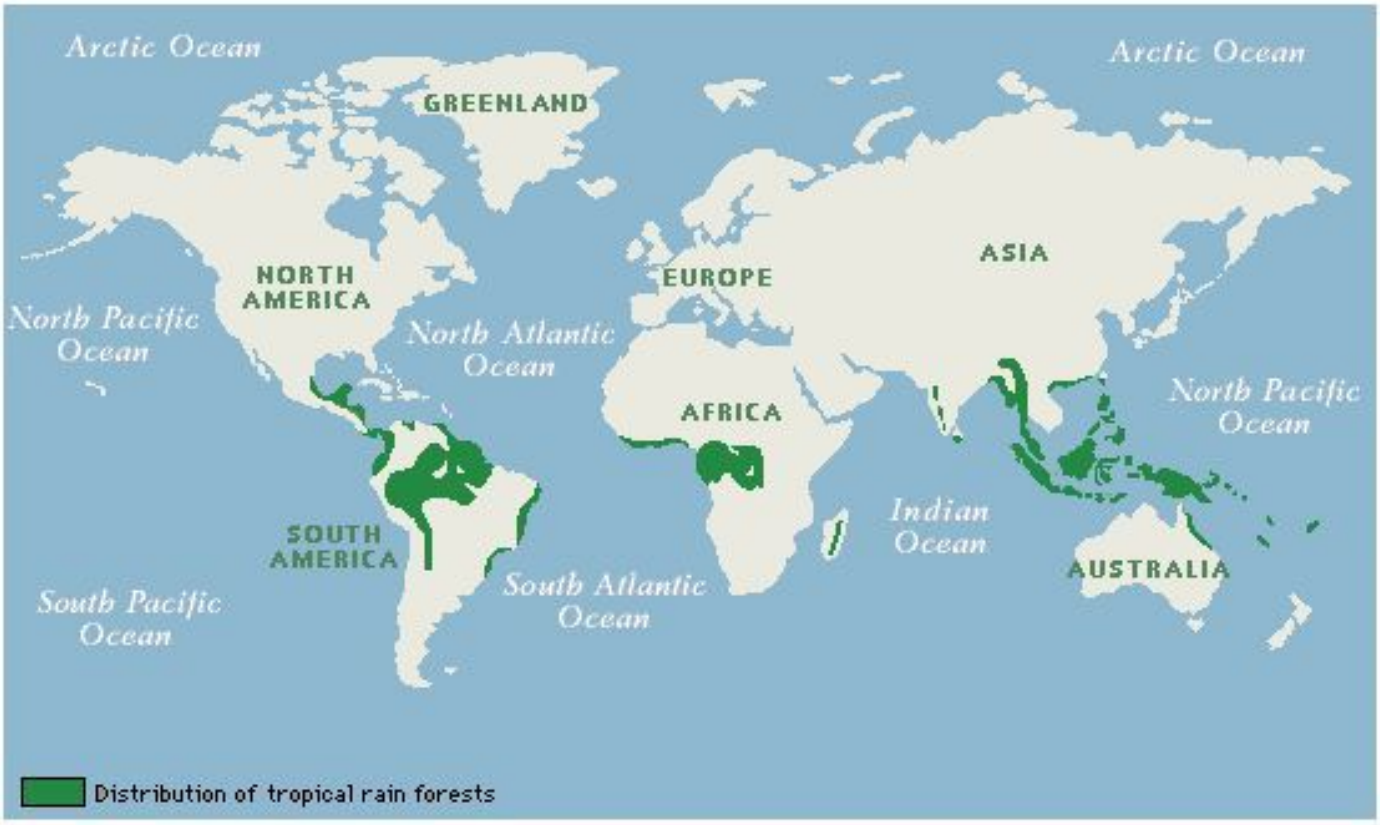

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