

Study Warns of Rising Humid Heat Stress During Indian Monsoon

A new climate study revealed that rising global temperatures will intensify dangerous humid heat stress across India during the monsoon season.

Humid heat stress refers to a severe thermal condition where high ambient temperature combined with high humidity prevents the human body from cooling through sweat evaporation.

KEY EXAM POINTS

- A recent environmental study found that **humid heat stress** during India's **monsoon season** will rise sharply with global warming.
- If global warming reaches **2°C**, hot-humid heat stress is projected to affect nearly **half of India's** geographical area.
- In **coastal Tamil Nadu** districts like **Ramanathapuram**, agricultural laborers face severe outdoor work disruptions due to unbearable morning humidity.
- Farm workers cultivating **pulses and cotton** are forced to split working shifts to avoid extreme midday heat and humidity.
- Health experts and researchers emphasized the urgent need to update existing **Heat Action Plans** to incorporate **wet-bulb temperature** metrics.

DID YOU KNOW..!?

Wet-Bulb Temperature of **35°C** is considered the theoretical physiological limit of human survivability under humid conditions.

India launched the National Action Plan on Climate Change (**NAPCC**) in **2008** with eight specialized national missions.

The **Paris Agreement** targets limiting global average temperature rise to well below 2°C above pre-industrial levels, aiming for **1.5°C**.

Article 48A of the Indian Constitution mandates the State to protect and improve the environment and safeguard forests and wildlife.

Ahmedabad became the first South Asian city to formulate a comprehensive Heat Action Plan in **2013** following severe heatwaves.

Tamil Nadu established the **Tamil Nadu** Green Climate Company (**TNGCC**) as a special purpose vehicle to implement state climate missions.

The India Meteorological Department (**IMD**), established in **1875**, is the nodal agency for weather forecasting and heatwave warnings in India.

REVISION FLASHCARD

At 2°C global warming, humid heat stress is projected to affect nearly half of India during monsoons.

Syllabus Relevance: Relevant for Unit 1 (General Science - Ecology & Health) and Unit 3 (Geography - Monsoon & Climate Change).

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