

9. Short News

1. Ulcerative Colitis (UC)

A chronic Inflammatory Bowel Disease (IBD) causing long-term inflammation and ulcers.

Affected Area- Specifically targets the inner lining of the large intestine (colon) and rectum.

New Findings- A recent study suggests it may be triggered when a "hidden layer" of immune cells beneath the gut lining becomes thinner.

Nature- It is an auto-inflammatory condition with cycles of flare-ups (worsening) and remission (recovery).

Causes- Immune system mistakenly attacking the gut. Genetics and environmental factors (diet, infections).

Treatment- Anti-inflammatory drugs, steroids, and in severe cases, surgery.

2. National Test House (NTH)

Now recognised by NHAI (National Highways Authority of India) to test samples for highway construction.

About NTH

Status- India's largest central government testing laboratory.

Established- 1912, under the Dept. of Consumer Affairs.

Function- Tests quality, calibration, and durability for industry and trade.

Significance- Ensures materials used in National Highways are safe and durable. Enhances transparency in quality assurance.

3. JIVA Programme

Launcher- NABARD (National Bank for Agriculture and Rural Development) in 2022.

Location- Currently beneficial in drought-prone Nanded (Marathwada).

Core Philosophy- Agroecology. It promotes natural farming over chemical-intensive farming.

Key Objectives

1. **Sustainability-** Use natural, low-cost inputs.
2. **Resilience-** Help farms withstand climate change and drought.
3. **Soil Health-** Revive soil biology and biodiversity.

Implementation- Focuses on tribal and watershed development areas.

4. Alternate Wetting and Drying (AWD)

The Problem- Conventional rice farming keeps fields flooded. This creates anaerobic conditions where microbes produce Methane (a potent Greenhouse Gas). Rice farming causes ~12% of global methane emissions.

The Solution (AWD)- Instead of constant flooding, fields are allowed to dry out periodically.

Cycle- Flood for 20 days $\rightarrow$ Dry for ~6 days $\rightarrow$ Re-flood.

Mechanism- Farmers use a perforated water tube (approx. 30 cm long) to monitor the water table depth to know when to re-flood.

Benefits- Saves water. Cuts methane emissions (climate mitigation). Maintains rice yield.

5. Carbon Border Adjustment Mechanism (CBAM)

An import tax introduced by the European Union (EU).

Purpose- To tax imported goods based on the carbon emissions released during their production.

Goal- Prevent "Carbon Leakage" (companies moving factories to countries with weak environmental laws to avoid costs).

Timeline- Transitional phase now; full taxes start in 2026.

Impact on India- India is a major exporter of steel and aluminium to the EU. Indian steel (blast furnace method) is carbon-intensive, leading to higher taxes. Exports may become expensive and uncompetitive.

Global Reaction- BRICS nations (including India) criticize it as a discriminatory trade barrier.

6. National Frequency Allocation Plan 2025 (NFAP-2025)

Issued By- Department of Telecommunications (DoT).

Function- A policy roadmap that decides which radio frequencies are used for what purpose (Mobile, Satellite, TV, etc.).

Key Updates

1. 5G/6G- Allocated the 6425–7125 MHz band for mobile data (IMT).
2. Satellite Services- Allocated Ka, Q, and V bands for modern high-speed satellites.
3. Connectivity- Improved spectrum for In-Flight and Maritime (ships) internet.

Satellite Spectrum- Refers to radio waves used between Earth stations and Satellites.

Crucial for- Disaster management, GPS, and remote internet.

Regulation- Managed globally by the ITU (UN agency) because satellite

