

UPSC Daily Current Affairs| One Liners 17-02-2026

One Liners 17-02-2026

History, Art and Culture

Herath (Shivaratri in Kashmir)

•

Festival - Herath, celebrated by Kashmiri Pandits (displaced and those still in Kashmir).

•

Tradition - Unique to Kashmir—Pandits prepare mutton and fish dishes.

•

Past Brotherhood - Hindus gave walnuts to Muslim neighbours; Muslims reciprocated with lotus stems (nadru) on Nowruz, symbolizing shared culture.

•

Current Situation - Walnut-sharing rare now due to 1990s migration.

•

Celebrations - Pandits thronged Srinagar temples (Hanuman, Sharika Devi, Sankaracharya).

•

Sentiment - Nostalgic recollections of harmony shared by elders and on social media.

Geography

Annual Streamflow

-

Period - 1980-2021.

-

Methodology -

-

Used a high-resolution, physics-based hydrological model.

-

Factors included - Rainfall, groundwater, river flow, irrigation pumping.

-

Indus Basin Trends

-

Overall streamflow - Modest increase (~8% over four decades).

-

Main drivers - Rising precipitation (Western Disturbances, variable monsoon.)

-

Strongest increases - Indus, Jhelum, Chenab rivers.

-

Declines - Ravi and Sutlej (eastern tributaries).

-

Ganga Basin Trends

-

Streamflow - Sharp and sustained decline (~17% reduction)

-

Rainfall - Decreased by ~10%

-

Temperatures & atmospheric water demand - Increased

-

Dominant factor - Intensive groundwater pumping for irrigation.

Social Issues

Urban Challenge Fund (UCF)

- Implemented by - Ministry of Home and Urban Affairs.

Central Assistance

- Allocation - Rs.1 lakh crore

Funding Model

- Centrally sponsored scheme.
- Operates in competitive “challenge mode”.

Project Cost Coverage

- Central assistance covers 25% of project costs.

Market Funding

- Cities must raise at least 50% from the market
- Sources - Municipal bonds, bank loans, PPPs

Expected Investment

- Total projected investment - Rs.4 lakh crore in the urban sector over 5 years.

Eligibility

- Cities with population ≥ 10 lakh (2025 estimates).
- All State/UT capitals.
- Major industrial cities with population ≥ 1 lakh.
- All ULBs in hilly/NE States and smaller ULBs (<1 lakh population) under Credit Repayment Guarantee Scheme.

Operational Period

- FY 2025-26 to 2030-31.
- Extendable up to 2033-34.

Polity & Governance

Delhi's Bhu-Aadhaar Scheme

- **Initiative under** - Ministry of Home and Urban Affairs.
- **Implementation** - Revenue Department's IT division with support from Survey of India.
- **Objective** - To create a digital land map of the city.
- **Technology** - Drone surveys and high-resolution imaging.
- **Identification** - Each land parcel gets a 14-digit ULPIN; owners receive a Bhu-Aadhaar card.
- **Benefits** - Safeguards property rights, curbs corruption, prevents disputes, simplifies ownership verification, enables departmental data coordination, and reduces fraudulent transactions.
- **Background** - Part of the Digital India Land Records Modernization Programme (DILRMP), introduced in 2016; pilot completed in Tilangpur Kotla village

Economy

2G bioethanol plant

- It is the *World's 1st commercial-scale 2G bioethanol plant* using bamboo as feedstock.
- **Location** - Numaligarh, Assam.
- **Company** - Assam Bio Ethanol Private Limited (ABEPL), a joint venture of Numaligarh Refinery Limited (NRL), Chempolis Oy (Finland), and Fortum.
- **Investment** - Rs.4,930 crore.
- **Feedstock** - Requires 5 lakh metric tonnes of bamboo annually.
- **Output**
 - Produces 49,000 metric tonnes of ethanol annually.
- **By-products** - Furfural, acetic acid, liquid CO₂, bio-coal.
- **Significance**
 - Made from non-food farm waste/residue.
 - More sustainable with a lower carbon footprint.
 - Ensures food security (unlike 1G ethanol from food crops).

Environment

Bio-based Chemicals

- **Definition** - Bio-based chemicals derived from biological feedstocks such as sugarcane, corn, starch, and biomass residues.

- **Processes** - Typically produced through *fermentation or enzymatic methods*.

- **Bio-based enzymes** - Naturally sourced enzymes (from microbes/plants) applied in biofuels, food processing, textiles; e.g., amylases in brewing, cellulases in biofuel production.

- **Examples** - It includes organic acids (e.g., lactic acid), bio-alcohols, solvents, surfactants, and intermediates used in plastics, cosmetics, and pharmaceuticals.

- **Significance** - Both reduce environmental impact, support sustainable industrial processes, and provide alternatives to fossil fuel-based chemicals.

India's Position in Bio-Based Chemicals and Enzymes

- **Strengths** - Large agricultural base, strong fermentation expertise (pharma, vaccines), expanding manufacturing sector.

- **Policy** - Prioritized under the Department of Biotechnology's BioE3 policy.

- **Key Players (Chemicals)** - Praj Industries, Godrej Industries, Godavari Biorefineries, Jubilant Ingrevia, StringBio.

- **Key Players (Enzymes)** - Novozymes India, DuPont, DSM, Advance Enzyme Technologies.

- **Market** - Enzymes sector is consolidated, with top players holding *over 75% market share*.

'Anupam' Decentralized Waste Management Model

-

Anupam means - “incomparable”.

-

Implemented by - New Delhi Municipal Council (NDMC).

-

Objective - To decentralize waste management and promote sustainable urban living.

-

Key Features

-

Source segregation -Wet, dry, and sanitary waste separated.

-

On-site composting - Wet & horticultural waste composted in parks/green belts.

-

Dry waste - Sorted and sent to recyclers.

-

E-waste - Sent to CPCB-authorised recyclers.

-

Reduced transport - Wet waste no longer sent to NDMC plants.

-

Community involvement - Awareness drives, RWA meetings, penalties for mixed waste.

-

Dedicated staff - Sanitation inspectors and NDMC staff for composting & mechanised cleaning.

-

Pilot Project

-

Successfully implemented in 6 residential colonies, including Chanakyapuri.

Science

Inhaled Nitric Oxide for Drug-Resistant Pneumonia

-

Problem

-

Drug-resistant pneumonia is a major ICU complication.

-

Particularly severe with *Pseudomonas aeruginosa*.

-

Research Conducted by - Massachusetts General Hospital and Harvard Medical School.

-

Discovery - High-dose inhaled nitric oxide (NO) reduced drug-resistant *P. aeruginosa* in a large-animal ICU model.

-

Nitric Oxide Use

-

Naturally produced in the human body.

-

Traditionally used at low doses (20-80 ppm) in neonatal care to widen blood vessels.

-

Study tested much higher doses (300 ppm) for antimicrobial activity.

-

Animal Study (Pigs) - 16 ventilated pigs with multidrug-resistant *P. aeruginosa* pneumonia.

-

Treated animals showed -

-

99% lower bacterial counts in lungs.

-

Improved oxygenation and lung function.

-

Evidence that NO helps restore chemical signalling in infected lungs.

Epibatidine

Five European states concluded Alexei Navalny was killed using epibatidine, a rare poison dart frog toxin, directly implicating the Russian state.

Lethal dose

- It causes paralysis, breathing difficulties and death.
- The toxin is not found naturally in Russia. It is found in **Ecuadoran dart frogs** in South America. Indigenous tribes use the toxin in blow darts or blowguns when they hunt.
- Poison dart frogs are native to tropical Central and South America. The frogs are brightly coloured as a warning signal to predators that they contain powerful toxins in their skin.

EPIBATIDINE
one of earth's deadliest poisons and 200 times stronger than morphine — found in Navalny's biological samples.



It is not clear how the toxin was administered to Navalny.



SHANKAR
IAS PARLIAMENT
Information is Empowering