

UPSC Daily Current Affairs| One Liners 29-09-2025

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History, Art and Culture

Rani Rashmoni

PM pays tribute to Rani Rashmoni on her birth anniversary.

- She is a *social worker, visionary leader and philanthropist*.
- **Born in** - 1793, in Kolkata.
- **Contribution** -
 - Upliftment of poor people.
 - Founding of the *Dakshinshwar Kali temple*.
 - Set up a new bathing ghat called *Babu ghat in Hooghly river*.

Social Issues

Sex Ratio Fall

Delhi continues to see a drop in the sex ratio at birth for the fourth consecutive year.

- It is defined as " *number of females per 1000 males* in the population".
- **Delhi's Sex Ratio** - 920 females per 1000 males.
- **4th consecutive decline** - 933 (2020) to 920 (2024).
- **Released by** - Directorate of Economics and Statistics & Office of Chief Registrar (Births & Deaths) of the Delhi government.
- **Causes**
 - Sex-selective abortions (PCPNDT Act violation)
 - Low fertility
 - Son preference mentality
 - Delayed marriages, increased childcare/education costs.

Polity & Governance

Central Observers

ECI to deploy Central Observers (General, Police & Expenditure) in Bihar and bye-elections in certain states.

- **Central observers** - ECI decided to employ 470 Officers (320 IAS, 60 from IPS and 90 from IRS/IRAS/ICAS etc.)
- **Legal basis** - Article 324 of constitution and Section 20B of the Representation of the People Act, 1951.
- **Superintendence & control under** - Election Commission of India.
- **Objectives**
 - To identify areas for improvements and to formulate concrete and operative recommendations.
 - To ensure the fairness, impartiality and credibility of elections.
 - To contribute towards enhancing voter awareness and participation in elections.
- **Expenditure Observers** - To observe the election expenses incurred by the Candidates.

Firecracker Ban

The Supreme Courts have repeatedly upheld this right in various judgments concerning pollution

- **Right to Clean Environment** - It is interpreted as part of the Right to Life (Article 21) under the Indian Constitution.

- Includes the right to live in a pollution-free environment with dignity.

The Supreme Court acknowledges the economic dependence of thousands on the firecracker industry.

- **Right to Livelihood** - It also considered an integral part of the Right to Life (Article 21).
 - Ensures that individuals have the means to earn a living and sustain themselves.

Environment

India's 13th Biosphere in UNESCO's World Network of Biosphere Reserves.

- **13th biosphere** - *Cold Desert Biosphere Reserve* in Himachal Pradesh.

- **Announced in** - 37th Session of UNESCO's International Coordinating Council "Man and the Biosphere".

2 New Ramsar sites

India continues to hold the top position in Asia and ranks third globally, after the UK (176) and Mexico (144), in terms of the total number of Ramsar sites.

- **New addition** - Gokul Jalashay (Buxar district) & Udaipur Jheel (West Champaran district), in Bihar.

- **Total** - At present, 93 Ramsar sites in India.

Security

National Conclave 2025

- It serves as a platform for meaningful exchange of ideas.

- **Representatives from** - Rajya Sainik Boards (RSBs) and Zila Sainik Boards (ZSBs).

- **Organised by** - Department of Ex-Servicemen Welfare (DESW), Ministry of Defence.

- **Theme** - 'Viksit Bharat and Ex-Servicemen Welfare'.

- **Objectives** - To strengthen nationwide efforts for the well-being and reintegration of India's veterans.

- To share best practices, strengthen support mechanisms, and ensure that welfare schemes reach every veteran with greater efficiency and impact.

Science

India's 1st Integrative Oncology Research and Care Centre

- It is the 1st multidisciplinary centres in the country *to integrate Ayurveda, Yoga, Physiotherapy, Diet Therapy, Panchakarma, and modern oncology* under one roof.

- **Inaugurated in** - All India Institute of Ayurveda (AIIA), Goa by Ministry of Ayush.

- **Collaboration with** - ACTREC-Tata Memorial Centre.

- **Objectives**

- To provide holistic, patient-centred care with a special focus on supporting cancer patients through comprehensive rehabilitation services.

- To improve recovery, reduce side effects & enhance quality of life.

- To advance evidence-informed integrative healthcare.

SODAR (Sound Detection and Ranging) system

An MoU signed between CSIR-AMPRI and IMD.

- **SODAR systems** - It is a *ground-based remote sensing instrument* for the detection of vertical profiles of wind and turbulence data from near ground up to several hundreds of meters.
- **Designed & developed by** - CSIR-Advanced Materials and Processes Research Institute (AMPRI), Bhopal.
- **Inaugurated at** - India Meteorological Department (IMD).
- **Aim** - To enhance collaborative research on scientific and societal challenges related to weather, climate variability, forecasting.
- **Applications** -
 - Atmospheric dispersion studies.
 - Wind energy siting, wind shear warning.
 - Sound transmission analyses.
 - Microwave communications assessments.
 - Aircraft vortex monitoring.

Artificial Rain Trails

Delhi government signed MoU with IIT Kanpur for cloud seeding trials to combat air pollution.

- It is a weather modification technique that improves a cloud's ability to produce rain or snow by *introducing tiny ice nuclei into certain types of subfreezing clouds*.
- **Types**
 - **Static Seeding** - Introduces ice-forming nuclei (Silver Iodide) into cold clouds.
 - **Dynamic Seeding** - Aims to enhance vertical air currents, increasing moisture flow.
 - **Hygroscopic Seeding** - Disperses salt particles into warm clouds to promote droplet coalescence.
- **Applications** - Increasing water supply (drought mitigation), agricultural support, hail damage reduction, fog dispersal, air pollution mitigation (washing away pollutants).