

Prime Minister of Singapore Paid an Official Visit to India

The visit commemorated **60 years of India-Singapore diplomatic relations**, reaffirming the shared legacy of friendship, trust, and mutual respect.

Key Outcomes

Both countries adopted a forward-looking and substantive **roadmap for Comprehensive Strategic Partnership (CSP)** aims to deepen cooperation in eight critical areas

- **Economic Cooperation:** Both sides will continue to engage in dialogue and make progress on initiation of the **3rd review of Comprehensive Economic Cooperation Agreement (CECA)** and achieve substantial review of the **ASEAN India Trade in Goods Agreement (AITIGA) in 2025**
 - ⊕ Supporting India's **semiconductor industry**, enhance India-Singapore capital market connectivity.
 - ⊕ **Space:** Promote joint collaborations between **Indian National Space Promotion and Authorisation Centre (IN-SPACe)** and the **Office for Space Technology & Industry, Singapore**.
- **Defence and Security Cooperation:** Deepening defence technology cooperation in emerging areas like **Quantum Computing, AI, Automation, and Unmanned Vessels**.
 - ⊕ Reaffirmed strong commitments to **combat terrorism**, including cross-border terrorism and terror financing.
- **Digitalisation:** Strengthening of **Digital Finance and Fintech cooperation**, cybersecurity, and capital market linkages.
 - ⊕ Expanding and maximizing the potential of the **UPI-PayNow Linkage** for cross-border payments.
- **Skills Development:** Jointly developing a **National Centre of Excellence in Advanced Manufacturing in Chennai, Tamil Nadu**.
- **Sustainability:** Collaborating on green initiatives in multilateral frameworks like the **International Solar Alliance and Global Biofuels Alliance**.
 - ⊕ Step up cooperation in **green hydrogen and ammonia production**, exploring **urban water management** and **civil nuclear domain** cooperation.
- **Connectivity:** Supported the establishment of an **India-Singapore Green and Digital Shipping Corridor (GDSC)** between the Port of Singapore and ports in India.
- **Healthcare and Medicine:** Deepening collaboration in digital health, disease surveillance.
- **People-to-People and Cultural Exchanges:** Strengthening social, cultural, and people-to-people linkages.

Both Prime Ministers agreed to institutionalise the India-Singapore Ministerial Roundtable to annually review CSP progress.

Sample Registration System (SRS) Statistical Report 2023 Released

SRS is the one of the world's largest **demographic survey** carried out by the **Office of Registrar General & Census Commissioner, India** to provide annual estimates of **fertility as well as mortality**.

Key Highlights of Report

- **Total Fertility Rate (TFR):** **1.9** nationally in 2023, below replacement level (2.1);
 - ⊕ Bihar highest (2.8), Delhi lowest (1.2).
- **Infant Mortality Rate (IMR):** **25** in 2023, down from 26 in 2022 and 32 in 2018.
 - ⊕ Highest in Chhattisgarh, MP & UP (37), lowest in Kerala (5).
 - ⊕ **1 in 40 infants die** before age one.
- **Under-5 Mortality Rate (U5MR):** Declined to **29** in 2023 from 30 in 2022, due to fall in female U5MR.
- **Crude Birth Rate (CBR):** **18.4** at national level (2023);
 - ⊕ Highest in Bihar (25.8), lowest in Tamil Nadu (12.0).
- **Crude Death Rate (CDR):** **6.4** nationally (2023);
 - ⊕ Highest in Chhattisgarh (8.3), lowest in Delhi (4.5).
- **Sex Ratio at Birth (SRB):** Improved to **917** (2021-23) from **914** (2020-22);
 - ⊕ Highest in **Chhattisgarh (974)**, lowest in **Uttarakhand (868)**.
 - ⊕ Also, it was **914 in rural** and **925 in urban areas**.

Key Terms

- **TFR:** It is the average number of children a woman would have during her reproductive years.
- **IMR:** It is the number of deaths of infants under one year of age per 1,000 live births.
- **U5MR:** It is the probability per 1,000 that a newborn baby will die before reaching age five, if subject to age-specific mortality rates of the specified year.
- **CBR:** It is the number of live births per 1,000 people in the mid of a given year.
- **CDR:** It is the number of deaths per 1,000 people in the mid of a given year.
- **Sex Ratio:** It refers to the number of females for every 1,000 males in a population.

NITI Aayog Releases Report on “Strategies and Pathways for Accelerating Growth in Pulses towards the Goal of Atmanirbharta”

India is the **largest producer (~28% of global output)** and **consumer of pulses** in the world.

- **Strategic Importance of Pulses for India: Nutritional Security** (budget-friendly source of plant-based protein), **Sustainable Development** (fixes nitrogen, enhancing soil fertility, mitigating GHG emissions).

Challenges in India's Pulse Production

- **Low Productivity and Yield Gap:** India's average pulse yield is **0.740 tonnes per hectare (t/ha)**, which is significantly lower than the **global average of 0.969 t/ha**.
- **Shift to More Profitable Crops:** Farmers are increasingly **shifting to more profitable crops** such as banana, cotton, sugarcane, and soybean, which offer higher returns and often have shorter cultivation periods.
- **Declining Sowing Area:** The pulses sowing area has gradually **reduced by 10.5% (from 2021-22 to 2023-24)**, with production declining by 11.2% in two years.
- **Rainfall Dependency:** Nearly **80% of pulse-growing areas are rainfed**, making cultivation highly vulnerable to erratic weather conditions.

Strategies and Roadmap for Self-Sufficiency

- **Horizontal Expansion:** **Increase area under pulses** by using rice fallow lands, intercropping with crops like sugarcane, restructuring rice-wheat systems, and applying the district-wise quadrant strategy for targeted interventions.
 - ⊗ **Quadrant Strategy:** Employing a district-wise four-quadrant approach (**High Area-High Yield, High Area-Low Yield, Low Area-High Yield, and Low Area-Low Yield**) helps categorize districts for **targeted interventions**.
- **Vertical Expansion:** **Enhance productivity** through improved seed varieties, modern farming machinery, optimal agronomic practices, and better stress management (abiotic & biotic).
- **Varietal Development:** Develop climate-resilient, short-duration, nutrient-rich, pest- and disease-resistant, and machine-harvestable varieties using advanced breeding and genomics.
- **Seed Quality & Access:** Establish **“One Block–One Seed Village”** hubs via FPOs to ensure availability of high-quality seeds, treatment kits, and end-to-end traceability, supported by seed subsidies.







India Joins the HealthAI Global Regulatory Network (GRN)

India will work with HealthAI, alongside other GRN members like the UK and Singapore to **share safety protocols and monitor AI performance in clinical settings**.

- The partnership supports **IndiaAI strategy**, which aims to build a comprehensive and inclusive AI ecosystem

HealthAI Global Regulatory Network (GRN)

- HealthAI is a **Geneva-based, independent nonprofit organization** that promotes equitable access to AI-powered health innovations.
 - ⊗ It collaborates with governments, international organizations, and global health leaders, focusing on AI governance and regulation to ensure AI can transform healthcare for all.
- GRN members have exclusive access to the **‘Global Public Repository of AI-related Registered Solutions for Health’**, where participating regulatory authorities can showcase AI-related registered solutions from their countries.

Role of AI in Healthcare	Challenges in AI in Healthcare
 Transforming Healthcare Delivery: helps address challenges like aging populations and rising costs by enabling data-driven, efficient, and patient-centered care.	 Data Quality and Access: Healthcare data is highly sensitive, often inconsistent, siloed, and not optimally organized for AI development, evaluation, and implementation.
 Enabling Targeted Therapeutics: Improves drug discovery, optimizes clinical trials, and supports personalized treatment.	 Workforce Skills Gap: There's a recognized need for investment in upskilling healthcare professionals to understand and embrace AI-augmented systems.
 Augmenting Connected Care: It can help in virtual assistants, chatbots, and remote monitoring tools, ensuring continuous care and better patient engagement.	 Ethics & Regulation: Concerns over safety, bias, accountability, and long-term monitoring of AI tools.

Recommendations for AI in Healthcare

- **Ethical Data Use** – Enable responsible access to secure and high-quality healthcare data for AI applications.
- **Domain Expertise** – Involve medical experts to interpret data and guide meaningful insights.
- **Robust Infrastructure** – Invest in computing power and cloud systems for real-time clinical decision-making.
- **Implementation Research** – Study practical challenges to build safe, reliable, and trusted AI solutions.
- **Workforce Training** – Upskill healthcare professionals to adopt and effectively use AI-driven systems.

India's Largest Lithium-ion (Li-ion) Battery Manufacturing Plant Inaugurated in Haryana

When fully complete it will produce about **20 crore** battery packs every year, covering **nearly 40% of India's annual requirement of 50 crore packs**.

- It was established under the Centre's **Electronics Manufacturing Cluster (EMC)** scheme.

About Li-ion Battery

- It is a type of **rechargeable battery** where lithium ions move between a **negative electrode** (graphite) and a **positive electrode** (Li transitional metal oxides) through a non-aqueous electrolyte during charging and discharging.

Benefits of Lithium-ion Batteries

- High Energy Density:** At 75-200 Watt-hours /KG, stores more energy compactly, and offers **longer cycles** between charges.
- Lightweight and Lower Toxic Heavy Metals:** Compared to older **lead-acid batteries**, it is much lighter due to use of less toxic and lightweight **Li and carbon electrodes**.
- Excellent Performance:** They provide **good cycle stability, efficiency, and reliability**, with low self-discharge and generally **no memory effect** (slow-down due to repeated charging).

Challenges

- Supply Chain Vulnerability:** E.g. China controls half of global Li production and 70% of Li-ion battery production.
 - India imported Li-ion batteries worth **US\$ 1.2 billion (2018-2022)**.
- Safety Hazards:** They contain a **flammable electrolyte**, which can lead to explosions if mishandled.
- Environmental Impact:** E.g., Lithium mining is **water-intensive** (Apprx. 2,000 tonnes per tonne of lithium).
 - Lack of Recycling Units** exacerbates the issue of safe disposal.

About EMC Scheme

- Launched** by the **Ministry of Electronics and Information Technology (MeitY)** in 2012.
- Aim:** To provide support for creation of world-class infrastructure for **attracting investments** in the **Electronics Systems Design and Manufacturing Sector**.
- Grant Assistance**
 - Greenfield EMC:** 50% of project cost subject to a ceiling of Rs. 50 crore per every 100 acres of land.
 - Brownfield EMC:** 75% of the project cost subject to a ceiling of Rs. 50 crore per project.

ADR Report Highlights Increasing Criminalization of Indian Politics

The report released by the **Association for Democratic Reforms (ADR)**, analyzed the criminal records of ministers across **27 State Assemblies, 3 Union Territories and the Union Council of Ministers**.

Key Highlights

- Criminal Cases:** Out of the 643 ministers, **47% ministers have declared criminal cases** against themselves.
- Serious Criminal Cases:** **27% ministers** have declared serious criminal cases including cases related to **murder, attempt to murder, kidnapping, crimes against women**, etc.

Causes of Criminalization of Politics

- Muscle Power & Criminal Nexus:** Politicians use criminals to sway voters with fear and money, often rewarding them with party tickets for winnability (**Dharam Vira Commission, 1977**).
- Money Power:** Excessive **election spending** and **politician-bureaucrat nexus** drive corruption and illegal funding.
- Identity Politics:** Elections, especially panchayat, prioritize caste/religion over criminal records.
- Other:** Weak laws, slow judicial process and **socio-economic factors** such as poverty, illiteracy, and underdevelopment foster voter manipulation.

Impact of Criminalization of Politics

- Erosion of Democratic values and rule of law:** Due to criminal elements in the public life, Politics, crime, and violence become intertwined.
- Justice Denied:** Transparency and accountability are weakened.
- Risk of India turning into a **"government of criminals, for the criminals"** instead of democracy.

Measures Taken

- Legislative:**
 - Section 8(3) of Representation of People Act, 1951:** Disqualifies legislators convicted for a sentence of at least 2 years for a period of 6 years since his release.
- Judicial Pronouncements:**
 - Union of India v Association for Democratic Reforms, 2002:** Mandates disclosure of candidates' past and pending criminal charges.
 - Public Interest Foundation Case, 2018:** Supreme Court ordered mandatory publication of criminal records of candidates by political parties.
 - Lily Thomas v Union of India, 2013:** Those convicted would suffer immediate disqualification.

Also in News



Mission Mausam

The **Indian Meteorological Department (IMD)** is planning to **install four additional radars** under Mission Mausam in Jammu & Kashmir.

About Mission Mausam

- Launched In:** 2024 by the Ministry of Earth Sciences (MoES).
- Implemented By:** India Meteorological Department (IMD), the National Centre for Medium-Range Weather Forecasting (NCMRWF), and the Indian Institute of Tropical Meteorology (IITM).
- Aim:** To improve weather and climate services, ensuring timely and precise observation, modeling, and forecasting information for multiple sectors, including agriculture, disaster management, and rural development.



National Institutional Ranking Framework (NIRF) 2025

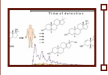
Recently, NIRF rankings 2025 were released by the **Union Government**.

Key highlights

- IIT Madras** topped the overall category.
- Indian Institute of Science, Bengaluru** topped the Universities Category.

About NIRF

- Origin:** Launched in 2015 by the Ministry of Education to rank Indian institutions.
 - Provides a transparent, reliable system **for students, parents, and policymakers** to evaluate colleges and universities.
- Assessment Parameters:** 5 broad categories with different weightage are used
 - Teaching, Learning & Resources(0.30)
 - Research and Professional Practice(0.30)
 - Graduation Outcome(0.20)
 - Outreach and Inclusivity(0.10)
 - Perception(0.10)



Methandienone Long-Term Metabolite

India Develops **Rare Reference Material for Enhanced Anti-Doping Testing** in Sports (Methandienone Long-Term Metabolite).

About Methandienone Long-Term Metabolite

- It is one of **Reference Materials (RMs)** being developed by **National Dope Testing Laboratory (NDTL)** and **NIPER-Guwahati**.
 - RMs are highly **purified and scientifically characterized forms** of drug substances or their metabolites, essential for accurate analytical testing.
 - They are crucial for the **detection of over 450 substances** that are currently **prohibited by the World Anti-Doping Agency (WADA)**.
- It helps in **identifying athletes** who have used steroids like Methandienone.



Ayurveda Ahara

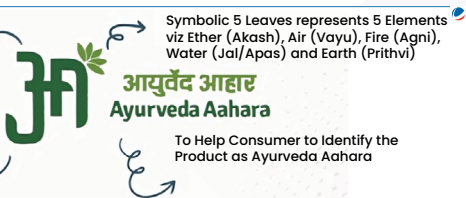
Recently, **FSSAI and Ministry of Ayush** released definitive list of '**Ayurveda Aahara**' Products.

Ayurveda Aahara

- It is a part of the **Food Safety and Standards (Ayurveda Aahara) Regulations, 2022**.
- It gives clear rules for **Food Business Operators (FBOs)** making Ayurvedic food products, so consumers know they are authentic and safe.
- These formulations are **drawn from classical Ayurvedic texts**.
- The food products include preparations such as, **Angarkarkati** (baked wheat balls), **Krishara** (Khicdi), **Panaka** (fruit drinks), **Dadhi** (curd-based), and **Gulkand** (rose petal jam).

Letters "3f" and "A" Combined in such a way that they appear to be a single form.

Color green or color tones of the Logo representing Ayurveda Aahara is Natural, Biotic, Wholesome, Herbal & Organic



L.I.V.E.S. and ARTHA

L.I.V.E.S. and ARTHA unveiled at the Star Rating Award Ceremony for Coal and Lignite Mines.

About L.I.V.E.S. and ARTHA

- L.I.V.E.S. is a comprehensive practitioner's guide formulated to serve as a **benchmark for responsible and sustainable mine closures** in alignment with global best practices.
- ARTHA is a **Green Financing Framework** aimed at channelling investments towards transforming reclaimed mines into productive and environmentally friendly assets.



Hallmarking

The Indian government has introduced **voluntary Hallmarking Unique Identification (HUID)**-based hallmarking for silver jewellery under revised standard enhancing traceability and aligning with the gold hallmarking system.

Hallmarking

- Hallmarking is the accurate determination and official recording of the proportionate content of precious metal in precious metal articles.
- It ensures authenticity, consumer protection, quality and traceability of jewellery and articles.
- In India it is regulated by the **Bureau of Indian Standards (BIS)**. **Bureau of Indian Standards (BIS) [HQ: New Delhi]**
- National standards body under the **Ministry of Consumer Affairs**
- Established under the **Bureau of Indian Standards Act, 1986**, now operates under **BIS Act 2016**.
- Formulates** standards, certifies products (ISI mark, Hallmarking) and operates testing labs.



Peace Pact with Kuki-Zo Groups

Recently, a **tripartite Suspension of Operation (SoO) Agreement** was renewed between the Centre, the Manipur government, and insurgent groups comprising **Kuki-Zo, Zomi and Hmars**.

About the Agreement

- Came into force:** From August 22, 2008
- Objective:** To end hostilities by initiating political dialogue and finding a **political settlement within the Constitution of India**.

Other Peace Pacts in North East India

- NLF (SD) Agreement (2019):** signed with **National Liberation Front of Tripura**.
- Bodo Accord (2020):** With **Bodo groups (Assam)**; disbanded by March 2020.
- Karbi Accord (2021):** With **Karbi groups (Assam)**; over 1,000 cadres joined mainstream.

Personality in News



Dr. Sarvepalli Radhakrishnan

Birth anniversary of **Dr. Sarvepalli Radhakrishnan** is celebrated all across India as Teachers' Day.

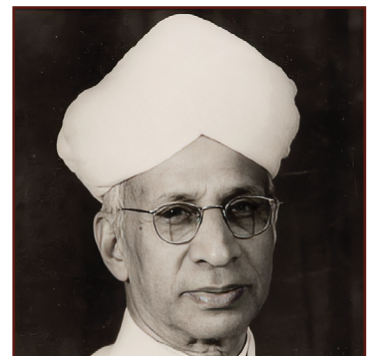
About Dr. Sarvepalli Radhakrishnan

- He was a renowned Indian philosopher.
- He was a firm believer in the **principles of education** as a transformative tool for society.

Key Contributions

- Worked as **Professors of Eastern Religions and Ethics** at the **University of Oxford**.
- Served as an **Indian delegate to the League of Nations** during the 1930s.
- He also served as the Indian Ambassador to the Soviet Union from 1949 to 1952.**
- He served as the **Vice-President (1952-1962) and President of India (1962-1967).**
- He compared Eastern and Western philosophies and interpreted Indian philosophy for Western audiences.
- Literary works:** The Principal Upanishads, The Hindu view of Life, Indian Philosophy, The Philosophy of the Upanishads, An Idealist View of Life, East and West: Some Reflections.

Values: Wisdom, Commitment, Dedication



AHMEDABAD



BHOPAL



CHANDIGARH



DELHI



JAIPUR



JODHPUR



GUWAHATI



HYDERABAD



LUCKNOW



PRAYAGRAJ



PUNE



RANCHI



SIKAR