NEXT IAS

DAILY CURRENT AFFAIRS (DCA)

Time: 45 Min

Date: 05-08-2026

Table of Content

THE TAXATION AND OTHER LAWS (AMENDMENT) BILL, 2026

Context

- The Union Government has introduced the **Taxation and Other Laws (Amendment) Bill, 2026** in the Lok Sabha to promote Ease of Doing Business, attract Foreign Direct Investment (FDI) and enhance India's attractiveness as a global investment destination.
    - The Bill will amend the **Payment and Settlement Systems Act, 2007, Income-tax Act, 2025, and the Finance Act, 2026**.

Key Provisions of the Bill

- **Exemption on income from government securities:** The Bill exempts foreign institutional investors (FIIs) and the Bank for International Settlements (BIS) from paying income tax on:
    - **Interest earned** on investments in government securities, and **capital gains** arising from sale, exchange or transfer of such securities.
    - Previously, under the Income Tax Act, interest income was taxed at **20%**, short-term capital gains at **30%**, and long-term capital gains at **12.5%.**
- **Tax Exemptions for Foreign Companies:** Income from sale of rough diamonds in a notified special zone will be exempt. This will apply to foreign companies engaged in **diamond mining or sightholders** of such companies, and **broker, aggregator, or a tender and auction entity** connected with sale of rough diamonds.
- **Electronics Manufacturing:** Income from storing electronic components in warehouses located in Customs Bonded Areas, provided these components are supplied to Indian contract manufacturers.
    - **Eligible products** include mobile phones, laptops, servers, and their sub-assemblies/ components.
    - Income from supplying capital goods, machinery, equipment, or tooling to Indian contract manufacturers of specified electronic goods will also remain exempt from income tax.
- **Investment funds registered outside India but managed from India:** The Income-tax Act specifies conditions for tax treatment of eligible investment funds registered outside India but managed from India.
    - If these are met, the fund is not treated as having a business connection in India and does not become taxable in India for that reason.
    - **The Bill removes several conditions including;** a minimum of 25 members, maximum 10% participation interest of a single investor, minimum monthly average corpus requirement of Rs 100 crore, and bar on investing more than 25% of the corpus in a single entity.
- **Special purpose vehicles of business trusts:** The Finance Act, 2026 levies a surcharge of **10%** on income-tax payable by every domestic company opting for concessional tax rates.
    - The Bill raises the surcharge rate to **25%** for a special purpose vehicle of a business trust.
    - **Business trusts (e.g. REITs and InvITs)** pool money from investors to buy and manage assets. The Bill also exempts unit holders of a business trust from tax on the income representing dividends from such a special purpose vehicle.
- **Data centres:** The Income-tax Act exempts income of specified foreign companies arising by way of procuring services from specified data centres. The Bill removes the conditions that; the **foreign company be notified by the central government**, and **the data centre be set up under an approved scheme and be notified in this regard.**
    - Under the Act, exemption is available for services procured from a data centre owned and operated by an Indian company.
    - The Bill extends the exemption to data centres leased and operated by an Indian company.
- **Digital Payments:** The Bill proposes to remove the existing zero-Merchant Discount Rate (MDR) provision under **Section 10A of the Payment and Settlement Systems Act, 2007.**
    - **Merchant Discount Rate (MDR)** is a fee charged to merchants by banks or payment service providers for processing digital payment transactions.
    - It is generally **calculated as a small percentage** of the transaction value.
    - The MDR is shared among banks, payment service providers (PSPs), payment gateways, and card networks.

Significance of the Bill

- Improves India's Ease of Doing Business by enhancing policy certainty for global investors.
- Attracts higher Foreign Direct Investment (FDI).
- Promotes electronics manufacturing and digital infrastructure.
- Encourages establishment of global investment management operations in India.
- Boosts investment in infrastructure and real estate.
- Generates employment in high-value sectors.

Challenges

- Tax incentives may **reduce government revenue** in the short term.
- Effective safeguards are needed to **prevent tax avoidance and round-tripping.**
- **Limited progress in infrastructure, logistics, contract enforcement, and regulatory efficiency** can reduce the effectiveness of the proposed tax reforms.

Source: MINT, PRS

SUPREME COURT EXTENDS PROTECTION AGAINST DOMESTIC CRUELTY TO WOMEN IN LIVE-IN RELATIONSHIPS

Context

- The Supreme Court held that the offence of domestic cruelty under **Section 498A of the IPC (now Sections 85 and 86 of the Bharatiya Nyaya Sanhita, 2023)** extends to women in live-in relationships that are **"in the nature of marriage."**.

Background

- **Section 498A** of the IPC penalises a husband or his relatives for subjecting a woman to cruelty.
  - Because the provision explicitly uses the word "husband", its application was traditionally restricted to legally valid marriages.
- Over the years, the Supreme Court expanded this definition to cover such men who induced a woman into a marriage that is **legally void or voidable**.
  - **For example:** Hiding a previous subsisting marriage & holding that such men cannot claim that they were not a "husband" to escape prosecution for cruelty.

Arguments Favouring Expansion

- **Progressive Judicial Interpretation:** It reflects the judiciary's commitment to purposively interpret legislation to respond to developing social circumstances and to protect vulnerable individuals.
- **Victim-Centric Approach:** Changes the focus from the legal status of marriage to the presence of cruelty in a domestic relationship.
- **Advancing Substantive Equality:** Provides equal protection under the law for women in similar home relationships, irrespective of marital status.
- **Constitutional Provisions:** The judgment is consistent with **Articles 14, 15(3), and 21** of the Constitution, which guarantee equality before the law, permit special provisions for women and children, and protect the rights to life, dignity, privacy, and personal liberty.

Arguments Against Expansion

- **Judicial Overreach:** It is argued that expanding the scope of criminal law beyond the statutory wording falls within the legislative domain of Parliament rather than the judiciary.
- **Absence of Statutory Definition:** The law does not define a "relationship in the nature of marriage," creating legal uncertainty.

Supreme Court Judgements

- **D. Velusamy v. D. Patchaiammal (2010):** The Supreme Court laid down criteria for determining whether a live-in relationship can be regarded as being "in the nature of marriage."
- **Indra Sarma v. V.K.V. Sarma (2013):** The Court elaborated on various factors that distinguish a marriage-like relationship from casual cohabitation and recognised that deserving women should receive legal protection.
- **Lalita Toppo v. State of Jharkhand (2018):** The Supreme Court held that women in live-in relationships are entitled to seek relief under the Protection of Women from Domestic Violence Act, 2005.
- **Navtej Singh Johar v. Union of India (2018):** The Court recognised the constitutional values of dignity, autonomy, privacy, and individual choice, reinforcing that legal interpretation must evolve with changing social norms.

Way Ahead

- Parliament should consider providing a **clear statutory framework** that defines relationships "in the nature of marriage."

- Uniform judicial guidelines should be developed to **ensure consistency in determining qualifying relationships.**
- **Legal awareness should be strengthened** so that women in live-in relationships understand the remedies available under criminal and civil laws.
- Law enforcement agencies should receive appropriate training to effectively implement these protections while **preventing misuse of the law.**

Source: TH

SUPREME COURT SEEKS UNION'S RESPONSE ON PLEA CHALLENGING CAPF ACT

In News

- The Supreme Court has issued notice to the Union government on petitions filed by serving officers of the CAPF, challenging the Central Armed Police Force (General Administration) Act, 2026.

Background of Act

- The CAPF (General Administration) Bill, Act was brought in **pursuant to a Supreme Court judgement of 2025**, which had directed to phase out deputation of IPS officers up to the rank of Inspector General (IG) in the Central Armed Police Forces (CAPFs) within two years.
- The Court also declared the **Group A CAPF officers as Organised Group A Services (OGAS), which will provide them a structured cadre with defined promotion** and career progression like services like the IAS, IPS and IFS.
- In October 2025, the review petition filed by **the Ministry of Home Affairs (MHA) was dismissed.**
- However, the MHA ignored the judgement and continued appointing IPS officers to the posts of IG and DIG, leading to retired CAPF officers filing a contempt petition against the Union Home Secretary.

Do you know?

- The MHA is the cadre-controlling authority of the CAPFs and the IPS.
  - Recruitments are done by the Union Public Service Commission.
- **Composition of The CAPFs :**
  - the Border Security Force (BSF), which is deployed along the Pakistan and Bangladesh borders;
  - the Central Industrial Security Force (CISF), which protects airports and critical installations;
  - the Central Reserve Police Force (CRPF), which is deployed for internal security, law-and-order duties, and in Left Wing Extremism-affected areas;
  - the Sashastra Seema Bal (SSB), which guards the border along Nepal and Bhutan; and
  - the Indo Tibetan Border Police (ITBP), which is deployed along the border with China.

Central Armed Police Force (General Administration) Act, 2026

- It aims to set up a **common legal framework** for recruitment, promotion, deputation and service conditions of Group A (gazetted) officers, from Assistant Commandant to Director General (DG) in the Central Armed Police Forces (CAPFs).
- It allows the Ministry of Home Affairs (MHA) to **frame rules on these issues,** which would override any inconsistent law, rule, court judgement or administrative order.
- It seeks to provide legislative clarity, maintain the distinct operational identity of CAPFs and bring judicial directions in line with administrative and federal requirements.
- It also codifies the deputation of IPS officers, which requires that 50% of IG posts, at least 67% of ADG posts and all Special DG and DG posts should be filled through IPS deputation.

Criticism

- **Career stagnation**: CAPF cadre officers are facing severe career stagnation because IPS deputation to senior CAPF posts is blocking their promotions
  - There is acute career stagnation as CRPF Assistant Commandants often spend over 16 years without promotion, while IPS officers get promoted several times
- **Operational burden**: CAPF officers say they are the ones who actually lead the counter-insurgency operations and suffer maximum casualties, while the IPS officers mostly join CAPFs on deputation at the Inspector General (IG) level or above and do not take part directly in field operations.
  - They also expressed concern over increasing suicides and voluntary retirements of CAPF officers due to poor promotion prospects.

- **Non-Functional Upgradation (NFU):** The CAPF officers say that the NFU facility introduced in 2006 for Central Group A services has not been extended to them sufficiently.
- **Salary disadvantage**: CAPF officers are at a salary and allowances disadvantage compared to other Central Group A services
- **Reducing judicial power:** The Central Armed Police Force (General Administration) Act, 2026 is criticised for reducing judicial power and ignoring the services of CAPF personnel.
  - It reverses the Supreme Court judgement by keeping IPS dominance in top CAPF leadership.

Governments Stand

- The CAPFs perform national security functions in close coordination with State authorities, and that IPS officers are necessary for their effective functioning in the interest of maintaining Centre–State relations.
  - The Act aims to provide a common legal regime relating to personnel for all Central Armed Police Forces (CAPFs), which are at present governed by separate service rules in respect of the five CAPFs.
- The Act intends to strengthen India's internal security system and will enhance coordination between the CAPFs, state police and state governments.

Conclusion and way forward

- The Central Armed Police Forces (General Administration) Act, 2026 aims at bringing in legal uniformity and improving internal security management.
- However, this has to be balanced with the career growth and morale of CAPF officers deputed on IPS.
- This requires increased cadre representation in senior posts, specialised training for deputed officers, transparent promotion timelines, and stakeholder consultations to ensure operational efficiency and fairness.

Source: TH

RESEARCH AND DEVELOPMENT STATISTICS 2025-26: DST

Context

- According to the latest data disclosed by the **Department of Science and Technology (DST),** India's spending on research and development (R&D) surged to **0.83% of GDP in 2021-22**, , marking the first time since 2009-10 that the country crossed the **0.8% threshold.**

What is Gross Expenditure on Research and Development (GERD)?

- It is the **sum of all resources dedicated to research and development** during a given period.
- It includes money spent on **personnel, equipment, materials**, and other costs associated with R&D activities by the Central Government, State Governments, Higher Educational Institutions (HEIs), Public Sector Enterprises (PSEs) and Private Industry.
- GERD is a key indicator of a country's investment in innovation and its capacity **to generate new knowledge and technologies.**
- The estimates imply a significant rise in the share of the private sector, with industry accounting for **more than half (51.8%)** of the total R&D expenditure of **India in 2023-24.**
- **Factors Behind the Increase**: Possible contributors could be:
  - A jump in private sector investment.
  - Broadening the scope of DST surveys to embrace international corporations and enterprises not covered under the former recognition framework of DSIR.
  - Economic activity recovery following the pandemic.
  - Increasing importance of technology demanding areas like electronics, pharmaceuticals, biotechnology, digital technologies and space.

National Science and Technology Management Information System (NSTMIS)

- It is a programme of **DST** that was established in **1982** under the **Ministry of Science and Technology.**
- It serves as the country's **nodal system for collecting, analysing and disseminating Science, Technology and Innovation (STI) data** to support evidence-based policymaking.

Key Functions

- It compiles India's official **Research and Development (R&D) statistics**, including **GERD**.

- It uses internationally accepted methodologies based on **UNESCO** and **OECD (Frascati Manual)** guidelines.
- It publishes reports such as **R&D Statistics at a Glance** and other STI indicators for policy formulation and international comparison.

Key Highlights (GERD in ₹ lakh crore)

- GERD was reduced in the COVID-19 pandemic in 2020-21.
- Expenditure bounced back sharply in 2021-22, rising by **over 53%.**
- R&D investment has been growing since then.

Year	2019-20	2020-21	2021-22	2022-23	2023-24
Government Sector	87,813.47	80,992.83	1,06,133.32	1,10,949.77	1,17,861.21
Private Sector	44,753.54	46,388.13	88,677.51	1,02,428.35	1,26,906.60
Gross Expenditure on R&D (GERD)	132,567.01	127,380.96	194,810.83	213,378.12	244,767.81
GERD as a percentage of GDP (%)	0.66	0.64	0.83	0.82	0.84

- **Structural Shift to Private Sector-led Innovation:** For the first time, private industry accounted for more than all levels of government combined.
  - It is a structural shift in India's innovation ecosystem.
  - It brings India closer to the advanced economies where the corporate sector is the biggest spender on R&D.
- **Industry R&D Spending Almost Doubled:** It suggests Indian companies are investing more in research, technological development and innovation.

Why is this Significant?

- **Increased Innovation Capability:** More R&D investment improves scientific research, technical innovation, industrial competitiveness, productivity growth, and long-term economic development.
- **Larger Role of Industry:** Rise in share of private investment indicates increased confidence of industry in innovation-led growth, growth in in-house R&D by Indian and global firms and greater collaboration between university, government and industry.
- **Global Competitiveness:** India is amongst the top countries in the world in scientific publications, availability of scientific talent and start-up environment.
  - The report finds that increased R&D investment can help translate these strengths into commercial innovation and sophisticated manufacturing.

India's Position Compared to Major Economies

- India's R&D intensity still lags behind other innovation-driven economies. For example:
  - Israel (~5%); South Korea (4.8%); United States (3.5%); Japan (3.3%); China (2.4%); and India (0.83% in 2021-22).
  - It indicates considerable scope for further expansion.

Challenges

- R&D expenditure remains below the levels of major economies.
- Public sector investment has grown only gradually.
- Stronger industry-academia collaboration is still needed.
- Commercialisation of research remains limited.
- Regional disparities in research infrastructure persist.

Government Initiatives to Promote R&D

- **National Research Foundation (NRF)** under the act Anusandhan National Research Foundation.
- **Research, Development and Innovation (RDI) Scheme** to catalyse private sector investment.
  - Promotion of industry-academia collaboration through various DST, DBT and CSIR programmes.
- **Introduction of Enabling Policy Frameworks** such as the Geospatial Policy 2022, Space Policy 2023, and BioE3 (Biotechnology for Economy, Environment and Employment) Policy 2024 with the provisions for increased participation from the private sector.
- **National Missions** such as National Quantum Missions, National Mission on Interdisciplinary Cyber-Physical Systems, India Semiconductor Mission, National Supercomputing Mission, etc.
- **NITI Aayog** has assessed India's performance in the **Global Innovation Index, released by WIPO.**
  - India's rank in the **Global Innovation Index (GII)** moved up from 46th in 2021 to **38th in 2025.**
- **Other efforts** include Atal Innovation Mission (AIM), Startup India, National Quantum Mission, and IndiaAI Mission.

Way Forward

- Gradually raise GERD for India to **about 2% of GDP** over the medium term.

- Keep investing heavily in public basic research, but also encourage more private sector involvement.
- Promote further collaboration between industry and academia.
- Enhance mechanisms for technology transfer and commercialisation.
- Promote developing technologies such as artificial intelligence, semiconductors, biotechnology, quantum technologies, and clean energy.
- Strengthen innovation ecosystems across states through research infrastructure and skilled human resources.

Source: TH

EMERGING CHALLENGES FACED BY THE ISRO

Context

- An analysis of the ISRO headcount from data in annual reports over the last three decades shows that **ISRO's current sanctioned strength vis-a-vis available employees is at 72%** which is the lowest in recent times.

About

- The developments have revolved around **unprecedented failures, slowdown of projects with top billing, fears of attrition and the emergence of nascent competition** in the form of homegrown startups.
- **Recent Failures and Slowdown:** Back-to-back failure of the PSLV C61 and C62; delays in the realization of a first unmanned test flight G1 for the maiden Indian human spaceflight mission Gaganyaan.
- **Scientists Leaving ISRO:** There have been requests for voluntary retirement and resignation from Group A scientific technical personnel of ISRO including those associated with the prestigious Gaganyaan and other important projects.
  - This severely impacts implementation of projects of national importance.

Contributing Factors

- **Rigid Hierarchy:** Many of India's laboratories continue to operate within rigid hierarchies that would appear strange in leading scientific institutions elsewhere in the world.
- **Switch to Private Sectors:** Researchers are moving to private research organisations, emerging deep-tech companies, universities abroad, and/or international collaborations where scientific autonomy has more room than administrative strictures.
- **Low Spending on R&D:** India's Gross Expenditure on Research and Development (GERD) as a percentage of GDP remained between **0.6% to 0.7%** which is **below the global average** and lower than countries **like China, South Korea and the US.**
  - There is a **relatively low investment by India's private sector**, accounting for **only around 36%,** whereas in the aforementioned countries, **private sector contributions are more than 70%**.
- **Economic Factors:** Lower salaries compared to developed countries and limited job opportunities for highly specialized skills.
- **Educational and Professional Opportunities:** Limited access to world-class research infrastructure.
  - Better training, exposure, and career growth opportunities abroad.
  - Preference for global higher education for advanced degrees.
- **Lifestyle and Quality of Life:** Better healthcare, infrastructure, and living standards abroad. It offers global recognition and networking opportunities.

GOVERNMENT INITIATIVES

- **Research, Development and Innovation (RDI) Scheme:** Approved with a ₹1 lakh crore corpus, this scheme aims to energise private-sector R&D and deep-tech startups.
  - It offers long-term, low- or zero-interest loans, equity investments, and funds a new Deep-Tech Fund of Funds via the Anusandhan National Research Foundation (ANRF).
- **Anusandhan National Research Foundation (ANRF):** The ANRF established in 2023, provides high-level strategic direction for research, innovation, and entrepreneurship in science and technology.
  - The Foundation aims to mobilise funds amounting to ₹50,000 crore during 2023–28 through multiple streams, including the ANRF Fund, Innovation Fund, Science and Engineering Research Fund, and Special Purpose Funds.

- **National Geospatial Policy, 2022:** It seeks to position India as a global leader in the geospatial sector by 2035.
  - The policy liberalises access to geospatial data, encouraging its use in governance, business, and research.
- **Indian Space Policy, 2023:** It builds on the space reforms introduced in 2020, which opened the domain to non-governmental entities for end-to-end participation.
  - It aims to enhance space capabilities, promote a flourishing commercial space industry, and foster collaboration between public and private entities.
- **National Quantum Mission:** Allocated ₹6,003.65 crore for 2023–31, to advance quantum technologies through scientific and industrial R&D.
- **BioE3 Policy, 2024:** It encourages the creation of Biomanufacturing and Bio-AI hubs, along with a national Biofoundry network, to accelerate technology development and commercialisation.
- **National Supercomputing Mission (NSM):** Launched in 2015, the initiative empowers universities, research institutions, and government agencies with state-of-the-art supercomputing systems connected through the National Knowledge Network.
- **India Semiconductor Mission (ISM):** Established in 2021, the mission seeks to build a robust ecosystem for semiconductor and display manufacturing.
  - India has already approved 10 semiconductor projects across six states, including the first commercial Silicon Carbide fabrication facility in Odisha.
- **India AI Mission:** The IndiaAI Mission embodies the vision of "Making AI in India and Making AI Work for India."
  - It is advancing rapidly, having already increased computing capacity from an initial target of 10,000 GPUs to 38,000 GPUs, ensuring accessible AI infrastructure for startups, researchers, and industries.
- **Atal Innovation Mission (AIM):** To foster innovation at the grassroots level by providing support to students, startups, and entrepreneurs.

Conclusion

- India must increase administrative transparency in scientific institutions, and install robust systems to redress grievances.
- Repatriating talent is just the first step; India must create an ecosystem where brilliance can thrive, through robust institutions, academic autonomy, funding, and openness to challenging questions.

Source: IE

NEWS IN SHORT

UTKALMANI PANDIT GOPABANDHU DAS

Context

- President Droupadi Murmu unveiled the statue of **Utkalmani Pandit Gopabandhu Das** in New Delhi.

About

- **Pandit Gopabandhu Das (1877–1928)**, popularly known as **Utkalmani (Gem of Odisha)**, was a prominent freedom fighter, social reformer, educationist, poet, and journalist from Odisha.
- Devoted to the service of the poor and social upliftment, he founded the **Satyabadi Bana Vidyalaya** at **Sakhigopal** to promote nationalist ideals through education.
- His relief work during the **1912 floods** and the **1918 influenza epidemic** earned him widespread public respect.
- He was elected to the **Legislative Council in 1917** and actively participated in India's freedom movement as a member of the Indian National Congress.
- He founded the Odia newspaper **The Samaja** in **1919**, which became an important platform for promoting nationalism and public awareness.
- He also made significant contributions to Odia literature. His notable works include Abakasha Chinta, Go-Mahatmya, Nachiketa Upakhyana, Karakabita, Dharmapada, and Bandira Atmakatha, many of which were written during his time at Ravenshaw College.

Source: AIR

UNIVERSAL IMMUNISATION PROGRAMME

Context

- According to a study by the Union Health Ministry, **introducing the hexavalent (six-in-one) vaccine into India's Universal Immunisation Programme** could improve the efficiency of childhood immunisation programmes.

About

- **A hexavalent vaccine** is a combination that protects infants against diphtheria, tetanus, pertussis (whooping cough), Hepatitis B, polio, and Haemophilus influenzae type b (Hib) **in a single injection.**
- It eases the workload of frontline health workers, lowers cold-chain requirements, and saves caregivers' time.

Universal Immunization Programme (UIP) of India

- India launched the EPI in **1978,** which was later renamed as the Universal Immunization Programme (UIP) in **1985.**
- The programme reaches **about 2.9 crore pregnant women and 2.54 crore newborns every year.**
- The UIP provides vaccines to newborns, children, adolescents and pregnant women for protection against 12 diseases.
- **The vaccines given under UIP are:**
  - Bacillus Calmette-Guérin (BCG).
  - Diphtheria, Pertussis and Tetanus (DPT).
  - Tetanus and adult Diphtheria (Td).
  - Bi valent oral polio vaccine (bOPV).
  - Measles-Rubella (MR) vaccine.
  - Hepatitis B (Hep B).
  - Pentavalent — DPT + Hepatitis B + Haemophilus Influenzae type b (DPT + Hep B + Hib).
  - Rotavirus Vaccine (RVV).
  - Pneumococcal Conjugate Vaccine (PCV).
  - Japanese Encephalitis (JE) Vaccine.

Source: TH

THREE COMMON MEDICINES CLASSIFIED AS CARCINOGENIC BY IARC

Context

- The International Agency for Research on Cancer (IARC) has classified three commonly prescribed medicines—**hydrochlorothiazide, voriconazole, and tacrolimus**—as **Group 1 (Carcinogenic to Humans)**.

About

- **Hydrochlorothiazide** is commonly used to treat hypertension, **Voriconazole** is an antifungal medicine used to manage serious invasive fungal infections, while **Tacrolimus** is an immunosuppressant that prevents rejection of transplanted organs.

What Does IARC's Group 1 Classification Mean?

- **Group 1** indicates that there is sufficient scientific evidence that an agent can cause cancer in humans.
- It is a **hazard classification**, not a risk assessment.
  - A hazard means an agent is capable of causing cancer under some circumstances.
  - It does not estimate the likelihood that cancer will occur in a person taking a medicine at the prescribed dose, nor does it weigh the benefits of treatment against the potential risks.

International Agency for Research on Cancer (IARC)

- The International Agency for Research on Cancer (IARC) is the specialized, intergovernmental cancer research agency of the **World Health Organization (WHO).**
- **Established:** 1965
- **Headquarters:** Lyon, France
- IARC evaluates environmental, occupational, and lifestyle factors to identify preventable causes of human cancer.
- IARC Carcinogen Classifications:
  - **Group 1:** Carcinogenic to humans (e.g., tobacco, asbestos, solar radiation).
  - **Group 2A:** Probably carcinogenic to humans.
  - **Group 2B:** Possibly carcinogenic to humans.
  - **Group 3:** Not classifiable as to its carcinogenicity to humans.

Source: TH

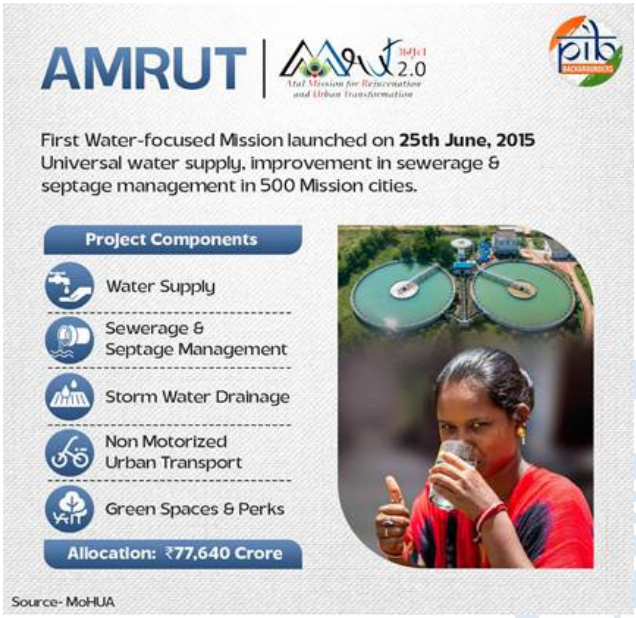
ATAL MISSION FOR REJUVENATION AND URBAN TRANSFORMATION (AMRUT)

In News

- The Parliamentary Standing Committee has asked the government to accelerate the sewerage and septage management projects under AMRUT 2.0, stating that only 104 out of 594 projects (17.5%) have been completed and 67% are in progress.

Atal Mission for Rejuvenation and Urban Transformation (AMRUT)

- It was launched in June 2015 to improve the quality of life in cities.
- It is a centrally sponsored scheme, with funds shared among States and UTs based on urban population and number of towns.
- It is aimed at providing basic services such as water supply, sewerage, urban transport, and parks.
- It focused on building infrastructure that delivers better services to people, especially the poor.



AMRUT 2.0

- It was launched on 1 October 2021. It covers all Urban Local Bodies (ULBs) and aims to make cities water secure and self-reliant.
- One key goal is to provide universal coverage of sewerage and septage management in the original 500 AMRUT cities.

Source: BS

10-KM MINING BUFFER APPLIES TO ALL WETLAND RESERVES: SC

Context

- The Supreme Court has clarified that the **10 km radius buffer for mining extends to all wetland reserves in the country.**

About

- **The Asan Wetland Conservation Reserve** lies at the confluence of the Asan and Yamuna rivers in Uttarakhand and was designated a Ramsar site in 2020.
    - It is an important habitat for **migratory waterbirds and supports rich aquatic biodiversity.**
- The Supreme Court directed that **no mining activity should be carried out within a 10-km radius of the reserve** unless the project proponent first obtained permission from the Standing Committee of the MoEFCC.
    - Wetland's designation as a Ramsar site **warranted heightened scrutiny of activities that could affect its ecological character.**
- The latest clarification indicates that the **same principle would apply to other wetland conservation reserves across India.**

What is a Wetland?

- A wetland is an ecosystem in which the land is covered by **water—salt, fresh, or somewhere in between—either seasonally or permanently.** It functions as its **own distinct ecosystem.**
- **It includes water bodies** such as lakes, rivers, underground aquifers, swamps, wet grasslands, peatlands, deltas, tidal flats, mangroves, coral reefs, and other coastal areas as well.
- These wetlands can be classified into three segments such as **inland wetlands, coastal wetlands, and human-made wetlands.**

Wetlands in India

- India includes **high-altitude wetlands** of the Himalayas, **floodplains** of rivers such as Ganges and Brahmaputra, **lagoons and mangrove marshes** on the coastline, and **reefs** in marine environments.
- India has around **4.6%** of its land as wetlands, **101 Wetlands of India** are under the **List of Wetlands of International Importance called as Ramsar Sites.**
- India boasts the **largest Ramsar site network in Asia** and the **3rd largest** in the world in terms of number of sites.
    - **Tamil Nadu** holds the highest number of **Ramsar sites in India in 2026** with **20 sites.**

Ramsar Convention

- It is an international treaty aimed at conserving wetlands around the world. It was adopted in **Ramsar, Iran, in 1971** and entered into force in **1975.**
- Countries that are parties to the convention commit to designating wetlands of international importance within their territories. These sites are referred to as **Ramsar Sites.**

- **Criteria:**
  - supporting vulnerable, endangered, or critically endangered species or
  - threatened ecological communities or,
  - if it regularly supports 20,000 or more waterbirds or,
  - It is an important source of food for fishes, spawning grounds, and nursery.
- **India** has been a party to the Convention since **1982.**

Source: TH

BETTER PIGEONPEA VARIETIES

In News

- Indian Council of Agricultural Research (ICAR) has developed India's first fully annotated **telomere-to-telomere (T2T) reference genome of pigeonpea (Cajanus cajan L. Millsp.) variety 'Asha'.**

About

- It builds on **India's first pigeonpea draft genome (2011)** and its improved version (2017).
- It will enable the development of high-yielding, climate-resilient, and nutritionally enriched pigeonpea varieties, thereby strengthening India's food and nutritional security.

Do you know?

- **Telomeres** are repetitive DNA sequences at the ends of chromosomes that maintain the stability and integrity of chromosomes.
  - They shorten with each division of a cell, and when they reach a critical length, the cells stop dividing.
  - Their DNA is highly repetitive, so it is difficult to use conventional sequencing methods.
- **Telomere-to-Telomere (T2T) Genome** is a complete genome sequence without gaps from telomere to telomere with high accuracy.
  - The T2T-CHM13 human genome resolved previously missing regions of the genome, such as repetitive DNA and centromeric regions.
  - This will provide better insights into genetic variation, mutation, chromosome function, ageing, and disease, thus progressing precision medicine and genomics research.

Pigeonpea

- It is a major pulse crop cultivated extensively across the tropics and subtropics
  - It is predominantly grown under rainfed conditions
- It is highly sensitive to erratic rainfall, poor seedling establishment, and moisture stress during germination.
- **Global producers**: Myanmar, Malawi, Kenya, Uganda, Haiti, Democratic Republic of Congo, and Nepal, etc.
- **Major producing states of India:** Uttar Pradesh, Madhya Pradesh, West Bengal, Bihar, Karnataka, and Jharkhand.
- **Importance**: It is popularly known as 'Arhar' or 'Tur' and is one of India's most important pulse crops.
  - It is renowned for its rich protein content and has long been a major dietary staple across the Indian subcontinent, providing vital nutrition to millions.
  - It is a versatile and highly cherished legume that holds a special place in the diets of South Asian communities.

Mission for 'Aatmanirbharta in Pulses

- The Government of India launched the **Mission for 'Aatmanirbharta in Pulses' (2025-26 to 2030-31)** to achieve self-sufficiency in pulse production
- It aims to reduce import dependence and enhance farmers' income through improved seeds, area expansion, technology adoption, assured procurement, and strengthened post-harvest infrastructure.
- It aims to increase pulse production to about 35 million tonnes by 2030–31 through a comprehensive strategy involving research, seed systems, and extension services.

Source: PIB

ICAR DEVELOPS INDIGENOUS VACCINE FOR AFRICAN SWINE FEVER

Context

- The Indian Council of Agricultural Research (ICAR) has developed **India's first indigenous MA-104 Cell Line-Based Live Attenuated African Swine Fever (ASF) Vaccine** for pigs.

About

- The vaccine is recommended for healthy pigs above eight weeks of age and is administered as a **1 mL intramuscular injection, followed by a booster dose 14 days after the primary vaccination.**
- The indigenous vaccine is expected to substantially reduce pig mortality, minimise economic losses and improve the livelihoods of pig farmers across the country.

African Swine Fever (ASF)

- African Swine Fever (ASF) is a highly contagious transboundary animal disease caused by the **African Swine Fever Virus (ASFV)**, affecting domestic pigs and wild boar. It **does not infect humans**.
- First detected in Kenya in **1909**, the disease is now found across **Africa, Europe and Asia**.
- Since its first detection in **India** in **2020**, ASF has spread to several States and Union Territories, causing massive pig mortality, disruption of pig production, restrictions on animal movement and trade, and significant livelihood losses, particularly in the **North-Eastern region**.
- It spreads through direct contact with infected pigs, contaminated pork products, wild boar, and soft ticks.
- The disease is characterised by **high fever, haemorrhages, and mortality rates that may approach 100%**, making it one of the most devastating animal diseases affecting pigs.

Source: PIB

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