

DAILY CURRENT AFFAIRS (DCA)

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Table of Content

The Constitution (130th Amendment) Bill, 2025
The Promotion and Regulation of Online Gaming Bill, 2025
Pakistan, China and Afghanistan agree to extend CPEC to Kabul
India-Russia Deepen Partnership Amid US Tariffs
India Needs a National Space Law
Renewable Consumption Obligation Framework

NEWS IN SHORT

Table of Content
Vice-President of India
Pseudomonas Aeruginosa
37 supercomputers with 40 Petaflops Computing Power installed Under NSM
International Solar Alliance (ISA)
India Successfully Test-Fires Agni-5 Intermediate-Range Ballistic Missile
Exercise Samanvay Shakti 2025
Rugby-centric Bronco Test

TATHE CONSTITUTION (130TH AMENDMENT) BILL, 2025

Context

- Recently, the **Constitution (130th Amendment) Bill, 2025** was introduced in the Lok Sabha and subsequently referred to a **Joint Parliamentary Committee (JPC)** following intense opposition protests.
 - The Bill seeks to amend **Articles 75, 164, and 239AA** dealing with the Union Council of Ministers, State Councils of Ministers, and special provisions for Delhi.

What Does the 130th Amendment Bill Propose?

- The Bill introduces a mechanism to remove ministers who are in jail for serious offences:
 - If a minister is arrested and held in custody for **30 consecutive days** for an offence punishable with **five years or more imprisonment**, they will lose their position.
 - The **President**, acting on the **advice of the Chief Minister**, must remove the minister by the 31st day of custody.
 - If no advice is given, the minister automatically ceases to hold office.
- However, the **Bill allows reappointment** once the minister is released from custody.
- It is expected that ministers accused of **serious criminal offences** may compromise **constitutional morality, good governance, and public trust**.

Significance of the Bills



Related Concerns & Challenges

- Presumption of Innocence Undermined:** The Bill allows removal **based on detention, not conviction**, which **contradicts the principle of 'innocent until proven guilty'**.
 - It is argued that the Bill could **violate Article 14** (Right to Equality) and **Article 21** (Right to Life and Liberty).

- Scope for Political Misuse:** Opposition argue the provision could be weaponized by the Union government through investigative agencies like the CBI and ED.
- Threat to Federalism:** Bill centralizes power and weakens the autonomy of state governments.
- Judicial Challenges Likely:** The Bill may face **scrutiny under the Basic Structure Doctrine**, especially regarding the independence of the executive and separation of powers.
- Ethical Governance vs. Democratic Safeguards:** Some argue that the Bill promotes integrity and aligns with Supreme Court observations in cases like Lily Thomas and Manoj Narula, along with eroding democratic norms by allowing executive removal without judicial verdicts.

Existing Framework and Its Limitations

- Section 8 of RPA, 1951:** Legislators are disqualified only upon conviction and sentence of at least two years.
- Law Commission's 170th Report:** Recommended disqualification from the stage of framing of charges for offences with punishment of five years or more.
- Limitation:** Neither provision addresses the period of pre-conviction custody, enabling ministers to remain in office despite being in jail.

What Is a Constitution Amendment Bill?

- It is a legislative proposal, **introduced under Article 368**, to modify provisions of the Indian Constitution, like changes in the structure of government, electoral processes, or fundamental rights.
- It requires a **special majority: two-thirds of members present and voting in each House of Parliament**.
- Some amendments require **ratification by half of the state legislatures** if they affect federal provisions (e.g., distribution of powers between Centre and States).

What Is a Joint Parliamentary Committee (JPC)?

- It is an **ad hoc body** formed to examine complex or controversial legislation and **dissolve after submitting their report**.
- It is composed of members from both Lok Sabha and Rajya Sabha.
 - Typically includes 31 members (21 from Lok Sabha, 10 from Rajya Sabha), though size may vary.

- It is tasked with scrutinizing bills clause-by-clause, gathering expert opinions, and submitting a report to Parliament.
- While its recommendations are influential, they are **not binding on the government**.

Source: IE

THE PROMOTION AND REGULATION OF ONLINE GAMING BILL, 2025

Context

- The Lok Sabha has passed The Promotion and Regulation of Online Gaming Bill, 2025.
 - ♦ The Bill seeks to **prohibit online money games**, and promote and regulate certain other online games.

Major Provisions

- **Online Money Game Definition:** An online game that involves a user paying money or other stakes in expectation of receiving monetary or other enrichment.
 - ♦ This is irrespective of whether the game is based on skill, chance, or both.
 - ♦ Also include credits, coins, and tokens equivalent or convertible to money.
- **Prohibition on online money games:** The Bill prohibits offering or aiding online money games and related services.
 - ♦ It also prohibits advertising, and facilitating financial transactions for such games.
- **Blocking Games:** It empowers the central government to block any information related to online money gaming services from public access.
- **Promotion of e-sports and online social games:** E-sport is defined as an online game that: is played as part of multi-sports events,
 - ♦ is recognised under the National Sports Governance Act, 2025,
 - ♦ has outcome determined solely by factors such as physical dexterity, mental agility, strategic thinking, or similar skills,
 - ♦ and involves organised competitive events conducted in multiplayer format and governed by pre-defined rules.
 - ♦ It must not involve placing of bets or other stakes, or expectation of any winning out of such stakes.

• The central government may:

- ♦ create a mechanism for registration of e-sports and online social games,
 - ♦ specify guidelines for conducting e-sports events,
 - ♦ establish training academies for e-sports,
 - ♦ incentivise promotion of e-sport technology platforms,
 - ♦ and support initiatives that increase public access to safe social gaming content.
- **Authority on Online Gaming:** The central government may constitute an Authority with powers to determine whether an online game qualifies as an online money game, and recognise, categorise, and register online games.
 - **Search and arrest without warrant:** The Bill empowers authorised officers to enter and search any place without a warrant.
 - ♦ Places include buildings, vehicles, electronic records, and virtual digital spaces (such as emails and social media).
 - ♦ They may also arrest a suspect found during the search without a warrant.
 - **Offences and penalties: Offering online money gaming services** will be punishable with imprisonment for up to three years, a fine up to one crore rupees, or both.
 - ♦ **Advertising online money games** will be punishable with imprisonment up to two years, a fine up to Rs 50 lakh, or both.
 - ♦ **Facilitating financial transactions** for such services will be punishable with imprisonment up to three years, a fine up to one crore rupees, or both.
 - ♦ **A repeat offence would** attract enhanced penalties, including jail for 3-5 years and fine of up to 2 crore.

Need for the Bill

- **Lack of Framework:** The lack of a legal framework has hindered the sector's structured development and the promotion of responsible gaming practices, requiring urgent policy intervention and support mechanisms.
- **Major Concerns:** The proliferation of online money games through mobile phones, computers and the internet, and offering monetary returns has led to serious social, financial, psychological and public health harms.

Significance

- The bill will establish a **uniform and national-level legal framework** in the public interest.
- The Bill will **protect the country's youth** from predatory online Real Money Gaming apps which manipulate them through misleading monetary return promises.
- The introduction of the Bill reflects the Government's commitment to a safe, secure, and innovation-driven Digital India that boosts creativity, safeguards citizens, and strengthens national security.

Source: TH

PAKISTAN, CHINA AND AFGHANISTAN AGREE TO EXTEND CPEC TO KABUL

Context

- The foreign ministers of Afghanistan, China and Pakistan agreed to expand their cooperation in multiple fields, including extension of the China-Pakistan Economic Corridor (CPEC) to Kabul.

Objectives of the Trilateral meetings

- **Connectivity and Economic Integration:**
 - ♦ Extend CPEC into Afghanistan, linking it to Central Asian markets.
 - ♦ Completion of railway lines connecting Afghanistan to Pakistan.
 - ♦ Exploration of Afghan mineral resources with Chinese investment.
- **Political and Diplomatic Normalisation:**
 - ♦ Upgrade diplomatic representation between Afghanistan and Pakistan.
 - ♦ Bring Taliban formally into the BRI framework despite lack of global recognition.
- **Security Cooperation:** Pakistan wants Afghanistan's Taliban government to act against the **Tehreek-e-Taliban Pakistan (TTP)**, which operates from Afghan soil and frequently attacks Pakistani security forces.
 - ♦ China has voiced concern over the **Eastern Turkistan Islamic Movement (ETIM)**, accusing its fighters of using Afghan territory to launch attacks against China.

Significance of the meeting for concerned countries

- **For China:**
 - ♦ **Securing CPEC and BRI Projects:** China wants to ensure the smooth progress of the China-Pakistan Economic Corridor (CPEC), which is central to its Belt and Road Initiative. Instability in Pakistan and Afghanistan threatens Chinese investments.
 - ♦ **Expanding Economic Footprint:** By including Afghanistan, China can access Central Asia's trade routes and tap into Afghanistan's mineral wealth.
 - ♦ **Regional Influence:** The meeting strengthens China's image as a mediator and power broker in South Asia after the US withdrawal from Afghanistan.
- **For Afghanistan (Taliban Regime):**
 - ♦ **Political Legitimacy:** Taliban remains internationally unrecognised. Participation in Chinese-led platforms gives it diplomatic visibility and quasi-legitimacy.
 - ♦ **Economic Benefits:** Extension of CPEC promises infrastructure, trade routes, and investment, much-needed for Afghanistan's struggling economy.
 - ♦ **Balancing Regional Relations:** Engagement with both Pakistan and China helps Taliban reduce isolation and project itself as a serious regional actor.
- **For Pakistan:**
 - ♦ **Security Concerns:** Pakistan faces rising attacks from TTP fighters based in Afghanistan. The trilateral provides a channel to press the Taliban to act against them.
 - ♦ **Reviving CPEC:** Political instability and militant attacks slowed down CPEC projects. Chinese involvement is vital to revive economic momentum.
 - ♦ **Diplomatic Leverage:** By being central to both China and Afghanistan's connectivity ambitions, Pakistan reinforces its role as a **gateway to Central Asia**.

Impact on India

- **Sovereignty Concerns:** India has consistently opposed the China-Pakistan Economic Corridor (CPEC), as it passes through Pakistan-occupied Kashmir (PoK).

- ♦ Any expansion of CPEC into Afghanistan further entrenches Pakistan and China's projects in disputed territory, undermining India's claims.
- **Strategic Marginalisation:** The trilateral excludes India, despite its historic role in Afghan development (infrastructure, Parliament building, hospitals).
- **Security Challenges:** Stronger China–Pakistan–Afghanistan alignment could embolden extremist elements hostile to India, especially if Taliban legitimisation continues without conditions.
- **Connectivity Competition:** China's push for westward connectivity undermines Indian alternatives such as the **Chabahar Port project** and **International North-South Transport Corridor (INSTC)**.

Way Ahead for India

- **Strategic Autonomy and Balancing:** Continue selective engagement with China, maintain dialogue with the US, and strengthen ties with Russia, EU, and Indo-Pacific partners.
- **Deeper Engagement with Afghanistan:** Use humanitarian aid, infrastructure projects, and educational diplomacy to retain goodwill among Afghan people.
 - ♦ Engage Taliban pragmatically without granting premature recognition, ensuring Indian security concerns are raised consistently.
- **Enhanced Security Cooperation:** Expand counterterror cooperation with SCO members, Central Asia, and even Taliban interlocutors where necessary, to prevent Afghan soil from being used against India.
- **Connectivity Alternatives:** Accelerated work on Chabahar Port and the International North-South Transport Corridor (INSTC) to provide a counter-route linking India with Central Asia and Europe.

Concluding remarks

- The China–Pakistan–Afghanistan trilateral reflects China's bid to secure its economic and security interests in South Asia.
- India must carefully calibrate its diplomacy—balancing engagement with global and regional powers, while advancing alternative connectivity and security frameworks that safeguard its national interests.

Source: [TH](#)

INDIA-RUSSIA DEEPEN PARTNERSHIP AMID US TARIFFS

Context

- India's External Affairs Minister visited Moscow for the 26th Session of the India–Russia Inter-Governmental Commission on Trade, Economic, Scientific, Technological and Cultural Cooperation (IRIGC-TEC).

About

- EAM is on a three-day visit to Russia, taking place against the backdrop of **strained India-US relations following tariffs on Indian goods**.
- The visit comes amid the possibility of a meeting between Prime Minister Modi and the Russian President during the SCO Summit in Tianjin, China.
- Additionally, discussions are ongoing about a potential visit by the Russian President to India later this year.

Agenda & Proposals

- **Aim:** To strengthen the trade partnership and address the \$58.9 billion trade deficit resulting from India's increased oil imports from Russia.
- **Addressing barriers:** Removal of tariff & non-tariff barriers.
- **Connectivity boost:** Boosting regional connectivity through major routes, the International North-South Transport Corridor (INSTC), Northern Sea Route, Chennai–Vladivostok corridor.
- **Trade diversification:** Streamlining payment mechanisms, early conclusion of India–Eurasian Economic Union (EAEU) FTA.
- **Business engagement:** More intensive B2B contacts; encourage Russian companies to invest in Make in India opportunities.
- **Strategic Targets:**
 - ♦ Revised trade target of USD 100 billion by 2030.
 - ♦ Strengthening of Special and Privileged Strategic Partnership.

Major Concern of India

- **Increased Trade Imbalance:** In the last four years, India–Russia trade in goods has surged from USD 3 billion in 2021 to USD 68 billion in 2024–25, but the trade deficit has also widened sharply from USD 6.6 billion to USD 58.9 billion.

- **Trade Balance & Market Diversification:** US is one of India's largest export destinations, higher tariffs could worsen India's trade deficit with the US unless India finds alternative markets.
- **Energy Security Pressure:** Additional 25% penalty on Russian oil purchases directly impacts India's strategy of securing affordable energy imports, it may force India to pay higher prices for non-Russian oil, affecting inflation and current account balance.
- **Diplomatic Strain in Strategic Partnerships:** Tariffs undermine the India-US Strategic Partnership, especially in the context of:
 - ♦ QUAD cooperation (Indo-Pacific).
 - ♦ Defence technology and co-production.
 - ♦ Semiconductor and critical tech collaboration.
- **Risk of Trade Wars:** India might be pushed to retaliate with counter-tariffs, risking an escalating trade war.
 - ♦ Could disrupt India's broader goal of positioning itself as a reliable global trade hub.
- **Defence & Strategic Tech Cooperation:** Russia continues to be a key supplier of defence technology and nuclear energy cooperation, areas where the US could impose restrictions.
 - ♦ Strong ties with Russia ensure India maintains strategic autonomy and is not dependent on the US for critical technologies.
- **Industrial & Manufacturing Opportunities:** Russia's raw material exports (energy, fertilizers, metals) combined with India's manufacturing base can foster joint ventures under "Make in India."
 - ♦ This creates new value chains that reduce reliance on Western-dominated supply networks vulnerable to tariffs.
- **Strategic Balancing in Geopolitics:** Deepening the Special and Privileged Strategic Partnership with Russia sends a signal to the US that India has viable alternatives.
 - ♦ This can improve India's negotiating position in seeking tariff relief from the US.

How India-Russia Partnership Can Help India Overcome US Tariff Challenges?

- **Energy Security and Cost Advantage:** Russian crude oil imports at discounted rates help India keep its energy basket stable despite US penalties.
 - ♦ This reduces import costs, controlling inflation and giving exporters a competitive edge against higher US tariffs.
- **Market Diversification:** Russia (and the wider Eurasian region) offers alternative markets for Indian exports reducing over-dependence on the US.
 - ♦ The proposed India-Eurasian Economic Union (EAEU) FTA can provide preferential access to a large market across Russia, Belarus, Armenia, Kazakhstan, and Kyrgyzstan.
- **Connectivity & Logistics Advantage:** Projects like the International North-South Transport Corridor (INSTC), Chennai-Vladivostok maritime corridor, and Northern Sea Route can reduce transport time and costs for exports to Europe and Central Asia. This offsets the loss of competitiveness caused by US tariffs.
- **Trade in National Currencies & Payment Mechanisms:** Strengthening rupee-ruble settlement systems shields India from dollar-dominated trade restrictions imposed by the US.

Conclusion

- The India-Russia partnership provides India with energy security, market diversification, and strategic autonomy at a time of tariff and geopolitical pressure from the US.
- By leveraging Russian ties, India can reduce vulnerability to American trade restrictions while continuing to pursue its long-term trade target of \$100 billion with Russia by 2030.

Source: TH

INDIA NEEDS A NATIONAL SPACE LAW

In News

- Recently, experts stressed the urgent need for strong national space laws for India to support exploration, innovation, and commercialisation in space.

About

- The **Outer Space Treaty of 1967** prohibits national claims over space and holds states accountable for all space activities, including those by private entities.
- The treaty and its companions outline key principles but they are not self-enforcing.

- According to United Nations Office for Outer Space Affairs (UNOOSA) officials, national legislation is essential to implement these principles, offering legal clarity, predictability, and responsible growth of space sectors.
 - ♦ Many countries now have national space legislation. Japan, Luxembourg, and the U.S. have enacted frameworks to facilitate licensing, liability coverage, and commercial rights over space activities.

India's approach to space legislation

- India's space legislation follows a deliberate, phased approach, focusing first on technical regulations to enable commercial space operations in compliance with **Article VI of the Outer Space Treaty**.
- This has led to key regulatory instruments such as the **Catalogue of Indian Standards for Space Industry, the Indian Space Policy (2023), and the IN-SPACe Norms, Guidelines and Procedures**, which collectively facilitate the authorisation of non-governmental space activities.
- **India has ratified the key UN space treaties** but it is still in the process of enacting comprehensive national space legislation.

Importance of National Space Law for India

- **Regulate Private Sector and Protect National Security** – India's growing private space industry lacks clear legal guidelines on licensing, liability, and dispute resolution.
 - ♦ Legal oversight is needed to safeguard sensitive technologies, prevent espionage, and address space militarization.
- **Meet International Commitments** – A domestic law would enforce compliance with global treaties like the Outer Space Treaty and Liability Convention.
- **Enable Commercial Growth** – A clear legal framework would boost investor confidence, insurance markets, and innovation in space tech.
- **Ensure Sustainability and Ethics** – Laws are essential to manage space debris, orbital congestion, and promote responsible exploration.

What are industry perspectives?

- Industry leaders highlight the urgent need for a robust national space law to address operational challenges and regulatory gaps.

- Leaders stressed the importance of granting statutory authority to IN-SPACe, clearly defining licensing procedures, easing FDI norms, and establishing liability and insurance frameworks.
- There should be protection of intellectual property, better inter-ministerial coordination, enforceable rules on space debris and accidents, and an independent appellate body.

Way Ahead

- India's advancing space ambitions—human spaceflight, lunar missions, and a national space station—require a strong legal framework.
- Without it, the country's strategic and commercial goals risk being compromised. A national space law is essential for safeguarding India's sovereignty and future in space.

Source :TH

RENEWABLE CONSUMPTION OBLIGATION FRAMEWORK

Context

- The Union Ministry of Power, under the Energy Conservation Act (2001), has released a revised draft notification introducing the **Renewable Consumption Obligation (RCO)**.
 - ♦ It marks a paradigm shift from the earlier Renewable Purchase Obligation (RPO) that focused on procurement, to binding consumption-based renewable targets.

What is Renewable Consumption Obligation (RCO)?

- **Binding Targets:** It requires distribution companies (discoms), open access consumers, and captive power users to source **29.91%–43.33%** of energy from renewables by **2030**.
- **Categories Covered:**
 - ♦ Distributed renewable energy (rooftop solar, virtual net metering, behind-the-meter installations).
 - ♦ Wind energy.
 - ♦ Hydro energy (including projects abroad, with approval).
 - ♦ Other renewables (biomass co-firing, municipal solid waste).
- **Differentiated Targets:** For hilly & Northeastern states, distributed renewable energy targets are set at half the national rate, recognising geographical constraints.

- **Compliance Mechanisms:**

- ♦ Direct renewable energy consumption.
- ♦ Purchase of Renewable Energy Certificates (RECs).
- ♦ **Buyout option:** A consumer can pay a buyout price fixed by the Central Electricity Regulatory Commission (CERC). However this acts like a penalty payment, but it does not lead to any actual renewable energy being generated.

Significance of the RCO Framework

- **Shift from Procurement to Consumption:** Ensures actual renewable energy use rather than symbolic compliance.
- **Distributed Energy Emphasis:** Targets for rooftop solar and small-scale projects to rise from 1.5% in 2024-25 to 4.5% by 2029-30, potentially democratising energy production by involving households, local communities, and smaller developers.
- **Investment Certainty:** Creates predictable demand for renewable developers, likely to attract investment.
- **Climate Commitments:** Aligned with India's target of achieving 50% cumulative electric power from non-fossil fuel-based energy resources by 2030.
- **Consumer Coverage:** Over 100 discoms and thousands of captive/open access users included, bringing wide compliance scope.

Legal and Structural Challenges

- **Weak Enforcement in past:** In past RPO audits, only 6 of 24 states imposed penalties despite significant non-compliance.
 - ♦ It suggests systemic reluctance by regulators to enforce penalties on powerful discoms/industries.
- **Unclear Legal Authority of CERC in Buyout Clause:** The RCO framework allows consumers to "buy out" their obligation by paying a price set by the Central Electricity Regulatory Commission (CERC).
 - ♦ However the **Energy Conservation Act, 2001**, under which RCO is notified, does not give CERC any role. The CERC's powers come from the Electricity Act, 2003.

- **Overlapping Enforcement Authorities:** The framework allows three different authorities to take action in case of non-compliance, which can create confusion, duplication, or conflict in enforcement.
 - ♦ Bureau of Energy Efficiency (BEE) at the central level.
 - ♦ State Designated Agencies (SDAs).
 - ♦ Other state-appointed officers/persons.
- **Reporting and Timeline Gaps:** While RCO requires submission of energy accounts and compliance reports, there are no strict penalties for late reporting. This creates room for administrative delays and weakens accountability.
- **The buyout mechanism** essentially creates a permanent "pay-to-pollute" option without sunset clauses, undermining the objective of actual renewable energy consumption.

Way Ahead

- **Legislative Clarity:** Amend the Energy Conservation Act, 2001 or issue joint notification with the Electricity Act, 2003 to explicitly empower CERC.
- **Unified Enforcement Authority:** Establish a single nodal body to avoid fragmented enforcement.
- **Strengthen Penalties:** Mandate strict financial penalties for delayed compliance and non-reporting.
- **Support Mechanisms:** Expand Green Energy Open Access Rules and financing for rooftop solar and small projects.
 - ♦ Provide incentives for industries adopting behind-the-meter renewables.
- **Monitoring Transparency:** Publicly disclose annual compliance data of discoms and industries to enhance accountability.

Source: [DTE](#)

NEWS IN SHORT

VICE-PRESIDENT OF INDIA

Context

- The BJP-led NDA and the Congress-led Opposition parties have announced their respective candidates for the post of the Vice-President of India.

About

- **Article 66** of the Indian Constitution deals with the **election of the Vice-President overseen by the Election Commission**.
- The Vice-President is elected by an **Electoral College** comprising members of both Houses of Parliament, including nominated members. **State legislatures play no role in this election**.
- **Procedure:** The election is conducted by secret ballot, using the **single transferable vote (STV) system** of proportional representation. Each MP ranks the candidates in order of preference (1, 2, 3, etc).
 - ♦ A candidate must secure a **majority quota** (more than half the total valid votes) to win.
 - ♦ If no candidate achieves this on first preferences, the **candidate with the fewest votes is eliminated** and their votes transferred based on next preferences. This continues until one candidate crosses the threshold.
- **Term of Office (Article 67):**
 - ♦ 5 years from the date he enters office.
 - ♦ Eligible for re-election any number of times.
 - ♦ Continues to hold office until successor enters office.

Source: [TH](#)**PSEUDOMONAS AERUGINOSA****Context**

- Researchers from Germany found that the deadly bacterium **Pseudomonas aeruginosa** shows **bistable expression of the glpD gene**.

Pseudomonas aeruginosa

- Pseudomonas is a group of **bacteria commonly found in the environment, like in soil and water**.
- The most common type causing infections among humans is **Pseudomonas aeruginosa** which is a gram-negative, aerobic, non-spore forming rod that is capable of causing a variety of infections.
 - ♦ **P. aeruginosa** can cause infections in the **blood, lungs (pneumonia), urinary tract, or other parts of the body after surgery**.

Outcomes of Recent Research

- Pseudomonas aeruginosa exhibits bistable expression—meaning its **activity varies significantly among genetically identical cells**.

- This variation affects the bacterium's ability to cause infections, shown by tests on moth larvae and mouse immune cells.
- The study suggests targeting this gene's variable expression could help combat *P. aeruginosa* infections, a major concern in hospitals.

Source : [TH](#)**37 SUPERCOMPUTERS WITH 40 PETAFLOPS COMPUTING POWER INSTALLED UNDER NSM****Context**

- National Supercomputing Mission Powers India's Research Ecosystem with 37 supercomputers with a total computing power of 40 Petaflops.

National Supercomputing Mission (NSM)

- The National Supercomputing Mission (NSM) was initiated in **April 2015** with a budget outlay of **Rs.4,500 crore**.
- Its vision is to achieve **self-reliance and global leadership** in supercomputing by giving access to state-of-the-art supercomputing facilities to researchers, and enhancing global competitiveness in key areas of supercomputing technologies.
- The NSM is being **jointly implemented** by the **Ministry of Electronics and Information Technology (MeitY)** and the **Department of Science and Technology (DST)** through Centre for Development of Advanced Computing (C-DAC), Pune and Indian Institute of Science (IISc), Bengaluru.

Indigenous Technological Achievements

- India has developed end-to-end capabilities in designing, developing, and manufacturing HPC hardware and software stacks.
- **PARAM Rudra:** Deployed at GMRT Pune, IUAC Delhi, and S.N. Bose Centre Kolkata.
 - ♦ Built with Rudra servers, the first indigenously designed HPC-class servers at par with global standards.
 - ♦ Strengthens local electronics manufacturing under Atmanirbhar Bharat.
- **Trineta Network:** High-speed interconnect achieving 40–100 Gbps, enabling faster communication between computing nodes.
- **PARAM Shavak:** A compact desktop supercomputer designed for educational and research institutions.

Source: [PIB](#)

INTERNATIONAL SOLAR ALLIANCE (ISA)

In News

- The International Solar Alliance (ISA) will establish 17 centres of excellence globally and a Global Capability Centre in India to serve as a “Silicon Valley for solar” by the end of 2025.
 - These centres will offer training, testing, and startup support, with potential expansion to 50.

International Solar Alliance

- It is a global initiative launched in **2015 by India and France at COP21 in Paris**.
- It has **123 Member and Signatory Countries**.
- It is **headquartered at Gurugram in India**.
- It partners with global institutions to deploy solar solutions, especially in Least Developed Countries and Small Island Developing States, aiming to provide clean, affordable energy and drive sustainable development.
 - India has installed 119 GW of solar capacity as of July 2025.

Objectives

- It aims to boost **solar energy adoption globally by 2030**, reduce technology and financing costs, and promote solar use across sectors like agriculture, health, transport, and power.
- It supports solar-friendly policies, standardisation, investment mobilization, and training.

Source : TH

INDIA SUCCESSFULLY TEST-FIRES AGNI-5 INTERMEDIATE-RANGE BALLISTIC MISSILE

Context

- India recently carried out a successful launch of the **Agni-5 ballistic missile** under the command of the **Strategic Forces Command (SFC)**.
 - Strategic Forces Command (SFC)** is a part of **India's Nuclear Command Authority (NCA)** responsible for the management, training, and operational deployment of India's tactical and strategic nuclear weapons arsenal.

About Agni-5 Missile

- Type:** Nuclear-capable **Surface-to-Surface Ballistic Missile (SSBM)**.
 - SSBM Powered by rockets initially, but follow an unpowered ballistic trajectory after burnout, arching upwards before descending onto the target.
- Range:** Over 5,000 km, placing it in the category of Intermediate Range Ballistic Missiles (IRBM).
- Propulsion:** Three-stage solid-fuel engine.
- Developer:** Defence Research and Development Organisation (DRDO).
- Programme Link:** Part of the Integrated Guided Missile Development Programme (IGMDP), under which other missiles like Prithvi, Trishul, Nag, and Akash were also developed.
- MIRV Capability:** Can be equipped with Multiple Independently Targetable Re-entry Vehicles (MIRVs), enabling a single missile to carry and deliver multiple warheads at different targets.
- Strategic Status:** Puts India in the elite club of nations like the US, Russia, China, and France, which possess similar missile technology.

Source: TH

EXERCISE SAMANVAY SHAKTI 2025

In News

- Indian Army has initiated **Exercise Samanvay Shakti 2025** in Tinsukia district of Assam.

Exercise Samanvay Shakti 2025

- It is a landmark collaboration with state officials of Assam & Manipur to foster efficient cooperation, cohesion and mutual understanding.
- It is a 10 day **Military-Civil Integration Exercise** which aims at fostering synergy between security forces, government departments and civil institutions to address the region's complex challenges through a unified and coordinated approach.
- Participation:** The Indian Army, Indian Air Force, District Administration, Police, Intelligence Agencies, NDRF, SDRF, Medical Officials, BRO & GREF, Railways, educational institutions and security officials from OIL India, IOCL and Coal India alongwith representatives of the local media.

Source :Air

RUGBY-CENTRIC BRONCO TEST

Context

- The BCCI has reportedly introduced a **rugby-centric Bronco fitness test** for Indian players in an effort to ensure consistently high fitness standards.

About

- It will now be used alongside the established **Yo-Yo test and 2-kilometer time trial** to assess players' readiness for international competition.
- **The Bronco Test** is a high-intensity aerobic running drill designed to measure a player's stamina, speed, and cardiovascular conditioning.
 - ♦ It involves shuttle runs of 20, 40, and 60 meters, the goal is to finish the test within six minutes.
- **The Yo-Yo Test** has been a key component of India's fitness regime since 2017, it involves running between two cones placed 20 metres apart, with the pace increasing at each level.
 - ♦ Players are allowed a 10-second recovery period after every 40-metre run. To pass, a minimum score of **17.1 is required**.
- **While the Yo-Yo Test** focuses on interval recovery and agility, the Bronco Test is designed to assess continuous aerobic endurance.
 - ♦ Together, the two tests offer a **more comprehensive assessment** of a player's overall fitness.
- **2 KM Time Trial:** The BCCI also continues to utilise a 2-kilometre time trial, with specific benchmarks set for different roles: fast bowlers must complete it in 8 minutes 15 seconds.

Source: [IE](#)

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