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<b>Vanniyar quota</b>	<p><b>Context:</b> The Supreme Court has confirmed that the grant of 10.5% internal reservation to Vanniyakula Kshatriya community violates the fundamental rights of equality, non-discrimination and equal opportunity of 115 other most backward communities (MBCs) and de-notified communities (DNCs) in Tamil Nadu.</p> <p><b>What is Vanniyar Movement?</b></p> <ul style="list-style-type: none"> <li>• Vanniyars are one of the largest and most consolidated backward communities in Tamil Nadu.</li> <li>• They had raised massive protests in the mid-1980s demanding 20% reservation in the state, and 2% in central services.</li> <li>• During agitation from September 17 to 23, 1987, many protesters were killed.</li> <li>• <b>Split of OBC quota:</b> In 1989, the OBC quota was split into two: Backward Castes and Most Backward Castes.</li> <li>• Vanniyars were categorised among the MBCs with 107 other communities, with 20% reservation.</li> <li>• Three decades later, the state government passed a Bill, and the current government has implemented it with a Government Order ensuring 10.5% reservation for Vanniyars within the 20% MBC quota.</li> </ul>
<b>CBI and ED</b>	<p><b>Context:</b> Chief Justice of India (CJI) recently said there was an immediate need for the creation of an independent umbrella institution, so as to bring various central agencies like the Central Bureau of Investigation (CBI), Enforcement Directorate (ED) and the Serious Fraud Investigation Office (SFIO) under one roof.</p> <ul style="list-style-type: none"> <li>• He said the organisation should be headed by an independent and impartial authority.</li> <li>• He also highlighted that with the passage of time, like every other institution of repute, the CBI had also come under deep public scrutiny. Its actions and inactions had raised questions regarding its credibility, in some cases.</li> </ul> <p><b>About Central Bureau of Investigation (CBI)</b></p> <ul style="list-style-type: none"> <li>• The CBI is the premier investigating agency of India.</li> <li>• <b>Ministry:</b> Ministry of Personnel, Public Grievances and Pensions.</li> <li>• <b>Role:</b> It was originally set up to investigate bribery and governmental corruption. In 1965, it received expanded jurisdiction to investigate breaches of central laws enforceable by the Government of India, multi-state organised crime, multi-agency or international cases.</li> <li>• CBI is exempted from the provisions of the Right to Information Act.</li> <li>• CBI is India's officially designated single point of contact for liaison with the Interpol.</li> <li>• <b>The CBI headquarter:</b> New Delhi.</li> </ul> <p><b>About Enforcement Directorate (ED)</b></p> <ul style="list-style-type: none"> <li>• It is a law enforcement agency and economic intelligence agency responsible for enforcing economic laws and fighting economic crime in</li> </ul>



	<p>India.</p> <ul style="list-style-type: none"> <li>• <b>Ministry:</b> Department of Revenue, Ministry of Finance</li> <li>• The prime objective is the enforcement of two key Acts: <ul style="list-style-type: none"> <li>○ The Foreign Exchange Management Act 1999 (FEMA)</li> <li>○ The Prevention of Money Laundering Act 2002 (PMLA)</li> </ul> </li> <li>• <b>Headquarters:</b> New Delhi</li> <li>• <b>Five regional offices:</b> Mumbai, Chennai, Chandigarh, Kolkata and Delhi headed by Special Directors of Enforcement.</li> </ul>
<b>Women Representation on Benches</b>	<p><b>Context:</b> Appointment of Judges of the Supreme Court and High Courts is made under Articles <b>124, 217 and 224</b> of the Constitution of India, which do not provide reservation for any caste or class of persons.</p> <ul style="list-style-type: none"> <li>• In the present system of appointment of Judges to the constitutional courts through the Collegium system, the onus to provide social diversity and representation to all sections of the society including SC/ST/OBC/Women/Minorities primarily falls on the Judiciary.</li> <li>• Government cannot appoint any person as a High Court Judge who is not recommended by the High Court Collegium/Supreme Court Collegium.</li> <li>• However, the Government remains committed to social diversity in the appointment of Judges in the Higher Judiciary and has been requesting the Chief Justices of High Courts that while sending proposals for appointment of Judges, <b>due consideration be given to suitable candidates</b> belonging to Scheduled Castes, Scheduled Tribes, Other Backward Classes, Minorities and Women to ensure social diversity in appointment of Judges in High Courts.</li> </ul> <p>From 01.01.2021 to 30.03.2022, Supreme Court Collegium has recommended 39 women for appointment as High Court Judges, out of which 27 women were appointed and remaining 12 cases are under various stages of processing.</p> <p><b>Background</b></p> <p>The Indian Supreme Court has delivered remarkable judgments on gender identity, sexual orientation, Sabarimala temple entry and adultery. But the actual progress of the Indian judiciary should be measured by the number of women in high positions. Since Independence, India has had a woman President, Prime Minister, chief ministers, governors but no woman Chief Justice.</p> <ul style="list-style-type: none"> <li>• It took almost 40 years to have the first woman judge, <b>Justice Fathima Beevi</b>, and 68 years for the Supreme Court to have the first directly appointed woman judge, <b>Justice Indu Malhotra</b>, among six male judges.</li> <li>• Despite three women judges currently sitting in the Supreme Court, there seems to be no likelihood that we will have the first woman Chief Justice in the near future.</li> </ul> <p><b>Why does it matter?</b></p> <ul style="list-style-type: none"> <li>• A gender diverse bench reflects a bias-free judiciary. Many empirical studies show that having even one woman on a three-judge panel has an effect on the entire panel's decision-making in gender discrimination cases.</li> </ul>



	<ul style="list-style-type: none"> <li>• Having women judges encourage more women to approach the system of law to report violence and crimes happening to them on a daily basis.</li> <li>• The presence of women judges from diverse backgrounds will bring structural changes in the decision-making process. Studies prove that personal values, experiences and many other non-legal factors influence judicial decisions.</li> <li>• If women in the judiciary hail from similar backgrounds as those of men, holding mainstream ideas and beliefs, the gender diversity has little to no payoff. Besides, the more socially diverse the judicial benches are, the stronger the judiciary is. This will improve public trust in the judiciary and increase access to justice.</li> </ul> <p><b>Is there a way forward?</b></p> <ul style="list-style-type: none"> <li>• There is a need of an effective affirmative action workplan to have an adequate number of prospective women candidates, with especial focus on the fact that they come from marginalised groups. In addition, the criterion for designation of senior counsels should also be focused upon.</li> <li>• A special diversity programme is required to adopt to encourage and motivate women lawyers, the number of female students taking up law may increase but there won't be women judges to inspire them to sustain in the profession.</li> <li>• Collection of data should be initiated to determine the number of women judges in the lower judiciary and tribunals and also to determine year-wise number of senior designates by all High Courts.</li> <li>• Certain law schools have the subject either as a specialisation or as an elective. Equally, the All India Bar Examination does not contain even a single question or section relating to gender sensitisation. The Bar Council of India may take necessary steps in this regard.</li> <li>• Removing the minimum age for recruitment as district judge can help young female advocates from opting out of practice in favour of other services or corporate jobs. Governments should also rationalise salary and allowances of lower judiciary.</li> </ul> <p><b><i>Babasaheb Bhim Rao Ambedkar had said, "I measure the progress of a community by the degree of progress which women have achieved".</i></b></p> <p><b>Note:</b> United Nations General Assembly Resolution 75/274 designated 10th March the International Day of Women Judges in 2021.</p>
<p><b>The dispute over Belagavi</b></p>	<p><b>Context:</b> The border town of Belagavi has been a part of Karnataka since boundaries were demarcated on linguistic lines under the States Reorganisation Act, 1956. But the inter-State border dispute between Karnataka and Maharashtra erupts every now and then.</p> <ul style="list-style-type: none"> <li>• In the most recent instance, trouble began after some Kannada activists blackened the face of a leader of <b>the Maharashtra Ekikaran Samiti (MES)</b> – a Marathi outfit formed to demand Belagavi's inclusion into Maharashtra — during 'Maha Melava' rally.</li> <li>• The rally coincided with the first day of the Legislature session of Karnataka in Belagavi on December 13, 2021.</li> <li>• In turn, some Marathi outfits burnt the <b>Kannada flag</b> in Kolhapur in Maharashtra. This was widely condemned by Kannada organisations and</li> </ul>

state government Karnataka.

- To settle scores, some Kannada activists poured ink on a statue of Chhatrapati Shivaji in Bengaluru. MES activists then vandalised a statue of Sangolli Rayanna, a 19th century icon of Karnataka who fought the British, at Belagavi.

#### **What are the claims of both states?**

- In 1957, unhappy with the demarcation of boundaries, Maharashtra demanded realignment of its border with Karnataka.
- It invoked Section 21 (2) (b) of the Act, and submitted a petition to the Union Ministry of Home Affairs stating its objection to **Marathi-speaking areas included in Karnataka.**
- **Maharashtra claimed 814 villages**, and three urban settlements of Belagavi, Karwar and Nippani, all **part of Mumbai Presidency** before independence.
- A petition by Maharashtra in the Supreme Court, staking a claim over Belagavi, is currently pending.
- Karnataka has consistently argued that inclusion of Belagavi as part of its territory is beyond dispute. It has cited the demarcation done on linguistic lines as per the Act and the later **Mahajan Commission Report** to substantiate its position.
- Karnataka has argued for inclusion of areas in Kolhapur, Sholapur and Sangli districts (falling under Maharashtra) as its territory.
- Karnataka started holding the winter session of the Legislature in Belagavi from 2006. It built a massive Secretariat building in the district headquarters, on the lines of the Vidhana Soudha in Bengaluru, to reassert its claim.
- In 1960, a four-member committee was formed by both States. The committee could not arrive at a consensus and respective representatives submitted reports to their government. In the subsequent decades, chief ministers of both States have met several times to find an amicable solution but to no avail.

#### **What were the terms of the Mahajan Commission?**

- In 1966, at Maharashtra's insistence, then Prime Minister Indira Gandhi established a one-man commission, the Mahajan Commission (Mehar Chand Mahajan, third Chief Justice of India) a few months before the 1967 general elections and its report was released after the elections.
- It recommended that 264 villages be transferred to Maharashtra and that **Belgaum and 247 villages remain with Karnataka.**
- Maharashtra rejected the report, while Karnataka welcomed it. Karnataka argued that either the Mahajan Commission Report should be accepted fully or status quo maintained.
- In the following decades, Belagavi has significantly **changed on demographic and economic fronts.**
- - The middle-class core areas and surroundings of the city are predominantly Kannada-speaking people.
  - But in and around Belagavi a good number of people speak both

	<p>Marathi and Kannada. Intercommunity marriages between the two linguistic groups exist.</p> <p><b>What has been the politics around the dispute?</b></p> <ul style="list-style-type: none"> <li>• In the immediate decades of formation of States, no national party, particularly the Congress which has a social base in both States, was willing to take the risk and address the dispute. This helped MES sustain its fight with a single agenda to seek Belagavi's inclusion in Maharashtra.</li> <li>• MES-supported candidates, who have been winning one or more seats in the district since the 1957 Karnataka Assembly elections, were defeated in the 2018 Assembly elections.</li> <li>• As another election draws close in 2023, <b>MES is keen to revive its political fortunes.</b></li> <li>• One factor for renewal of the conflict came from then Chief Minister in 1986 when he made the <b>Kannada language test mandatory for anyone</b> joining the State Government service.</li> <li>• The stoppage of the concession given to linguistic minorities strained relations between two linguistic groups. Later, CM had to assure Marathi leaders that Kannada would not be made compulsory in primary education in the border areas.</li> <li>• The dispute strongly resonates in the <b>cultural arena too.</b> For instance, two sahitya sammelanas – the 73rd Akhil Bharatiya Marathi Sahitya Sammelana (ABMSS) and the 70th Akil Bharatiya Kannada Sahitya Sammeala – were held in Belagavi in 2000 and 2003, respectively. <ul style="list-style-type: none"> <li>◦ Both events prepared the ground for the re-opening of an otherwise muted issue.</li> <li>◦ Well known scholar Y.D. Phadke, president of the 73rd ABMSS, reminded the audience of the unfinished agenda of incorporating Belagavi into Maharashtra while noted Kannada writer and journalist Patil Puttappa who presided over the 70th Kannada literary meet said the town will remain part of Karnataka.</li> </ul> </li> </ul>
<p><b>Criminal Procedure Bill</b></p>	<p><b>Context:</b> The Lok Sabha recently passed the Criminal Procedure (Identification) Bill, 2022, by voice vote.</p> <p><b>Key takeaways</b></p> <ol style="list-style-type: none"> <li>1. It seeks to repeal the Identification of Prisoners Act, 1920.</li> <li>2. It allows the collection, storage and analysis of physical and biological samples, including retina and iris scan of the convicted, arrested and detained persons.</li> <li>3. During the debate on the Bill, the Opposition members expressed concern over the issue of data protection, possible misuse of the proposed law, violation of the citizen's right to privacy and other fundamental rights. <ul style="list-style-type: none"> <li>◦ One of the opposition members highlighted that the Bill was violating Articles 14, 19 and 20 (3) and 21 of the Constitution.</li> <li>◦ Its implications on civil liberties and human rights were enormous and would have far-reaching consequences</li> </ul> </li> </ol>

## Mullaperiyar dam supervisory committee

**Context:** The Centre on Tuesday suggested to the Supreme Court to let the [Mullaperiyar dam supervisory committee](#) continue for a year, by which time the [National Dam Safety Authority](#) under the new Dam Safety Act will become fully functional.

### Key takeaways

- The Dam Safety Act of 2021 has come as a panacea to end the prolonged and bitter legal battle over Mullaperiyar dam between Tamil Nadu and Kerala.
- The 2021 Act comprehensively provides for surveillance, inspection, operation and maintenance to prevent disasters caused by dams.
- Moreover, the Dam Safety Act mandates the setting up of two specialised bodies, National Committee on Dam Safety and the National Dam Safety Authority, to evolve policies.

### Background

- The SC constituted a permanent Supervisory Committee in 2014 to oversee all the issues concerning Mullaperiyar dam. The dam is a source of friction between Tamil Nadu and Kerala.

### What's the issue?

- Kerala said the water level should not go above 139 feet, the same as what the court had ordered on August 24, 2018, when the State was hit by floods.
- It is because the lives of 50 lakh people would be in danger if the water level in the dam is raised.
- However, Tamil Nadu objected to this decision citing the Supreme Court judgments of 2006 and 2014, which fixed the maximum water level at 142 feet.

### Mullaperiyar Dam

- It is a masonry gravity dam built at the confluence of Mullayar and Periyar rivers.
- Although the dam is located in Kerala, it is operated by Tamil Nadu following an 1886 lease indenture for 999 years (the Periyar Lake Lease Agreement) that was signed between the Maharaja of Travancore and the Secretary of State for India for the Periyar Irrigation works.
- It was Constructed between 1887 and 1895.
- It redirected the river to flow towards the Bay of Bengal, instead of the Arabian Sea and provide water to the arid rain region of Madurai in Madras Presidency.

### National Dam Safety Authority

- The Dam Safety Act, passed by Parliament on December 8 last year, states that a National Dam Safety Authority will cooperate with State-level dam safety organisations and owners of dams for standardising safety-related data and practices.
- The Authority will be headed by a chairman and assisted by five members to lead its five wings:
  - policy and research
  - technical
  - regulation



	<ul style="list-style-type: none"> <li>○ disaster</li> <li>○ resilience and administration and finance.</li> </ul> <ul style="list-style-type: none"> <li>• The Authority will have its headquarters in Delhi and will be supported by four regional offices.</li> <li>• The Centre also constituted a 22-member National Committee on Dam Safety which will be headed by the Chairman of the Central Water Commission.</li> <li>• A key function of the Authority is to resolve any issue between the State Dam Safety Organisations of States or between a State Dam Safety Organisation and any owner of a specified dam in that state, as per the notification.</li> </ul>
<b>Indian Nursing Council</b>	<p><b>Context:</b> The Indian Nursing Council recently condemned “derogatory content” in the sociology textbook for second-year B.Sc. nursing students listing the “merits and advantages of the dowry system”.</p> <p><b>Indian Nursing Council</b></p> <ul style="list-style-type: none"> <li>• Indian Nursing Council is a national regulatory body for nurses and nurse education in India.</li> <li>• It is an autonomous body under the Government of India, Ministry of Health &amp; Family Welfare, constituted under Indian Nursing Council Act, 1947.</li> </ul> <p><b>Functions:</b></p> <ul style="list-style-type: none"> <li>• Recognition of nursing qualifications in India</li> <li>• Granting any nursing qualification</li> <li>• Indian Nursing Council has the Power to require information as to courses of study and training and examinations</li> <li>• Inspect any institution recognized as a training institution</li> <li>• Withdrawal of recognition</li> <li>• Power to make regulations</li> </ul>
<b>Weapons of Mass destruction and their delivery systems (prohibition of unlawful activities) amendment Bill, 2022</b>	<p><b>Context:</b> Lok Sabha recently passed the weapons of Mass destruction and their delivery systems (prohibition of unlawful activities) amendment Bill, 2022 with a voice vote.</p> <ul style="list-style-type: none"> <li>• Weapons of mass destruction are biological, chemical, or nuclear weapons.</li> </ul> <p><b>Key takeaways</b></p> <ul style="list-style-type: none"> <li>• The Bill amends the Weapons of Mass Destruction and their Delivery Systems (Prohibition of Unlawful Activities) Act, 2005. <ul style="list-style-type: none"> <li>○ The 2005 Act prohibits unlawful activities (such as manufacturing, transport, or transfer) related to weapons of mass destruction, and their means of delivery.</li> </ul> </li> <li>• The present Bill bars persons from financing any prohibited activity related to weapons of mass destruction and their delivery systems.</li> <li>• To prevent persons from financing such activities, the central government may freeze, seize or attach their funds, financial assets, or economic resources (whether owned, held, or controlled directly or indirectly).</li> <li>• It may also prohibit persons from making finances or related services available for the benefit of other persons in relation to any activity</li> </ul>

	which is prohibited.
<b>Alternative Dispute Resolution (ADR) Mechanisms</b>	<p><b>Context:</b> Chief Justice of India N.V. Ramana stressed the need for increasing the use of <a href="#">alternative dispute resolution (ADR) mechanisms</a> that can change the judicial landscape, bringing justice to millions and settling grievances without protracted legal proceedings.</p> <p><b>Alternative Dispute Resolution (ADR) Mechanisms</b></p> <ul style="list-style-type: none"> <li>• ADR is a mechanism of dispute resolution that is non adversarial, i.e. working together cooperatively to reach the best resolution for everyone.</li> <li>• ADR can be instrumental in reducing the burden of litigation on courts, while delivering a well-rounded and satisfying experience for the parties involved.</li> <li>• ADR is generally classified into the following types: <ul style="list-style-type: none"> <li>○ <b>Arbitration:</b> The dispute is submitted to an arbitral tribunal which makes a decision (an “award”) on the dispute that is mostly binding on the parties.</li> <li>○ <b>Conciliation:</b> A non-binding procedure in which an impartial third party, the conciliator, assists the parties to a dispute in reaching a mutually satisfactory agreed settlement of the dispute.</li> <li>○ <b>Mediation:</b> In mediation, an impartial person called a “mediator” helps the parties try to reach a mutually acceptable resolution of the dispute.</li> <li>○ <b>Negotiation:</b> A non-binding procedure in which discussions between the parties are initiated without the intervention of any third party with the object of arriving at a negotiated settlement to the dispute</li> </ul> </li> </ul>
<b>PM-DAKSH Yojana</b>	<p><b>Context:</b> The government has said that around 2,71,000 persons will be trained over five years under <a href="#">Pradhan Mantri Dakshta Aur Kushalta Sampann Hitgrahi, PM-DAKSH Yojana</a>.</p> <ul style="list-style-type: none"> <li>• In 2020-21, the existing scheme of Assistance for Skill Development of Other Backward Classes, Economically Backward Classes was modified as a Central Sector Scheme with the inclusion of Scheduled Castes and Sanitation workers and was renamed as PM- DAKSH Yojana.</li> </ul> <p><b>About PM-DAKSH Yojana</b></p> <ul style="list-style-type: none"> <li>• The scheme aims to increase the skill levels of the target youth by providing for long-term and short-term skills, followed by settlement in employment and self-employment.</li> <li>• <b>Ministry:</b> Ministry of Social Justice &amp; Empowerment</li> <li>• Nearly 74,000 persons have been trained and more than 17,000 got placement in 2020-21 and 2021-22.</li> <li>• Under the scheme, free-of-cost training will be provided by the government for the trainees.</li> <li>• The stipend of ₹1000-1500 per month per trainee will be given for trainees having 80% and above attendance in short-term and long-term training.</li> <li>• Trained candidates will be provided placement after assessment and</li> </ul>

	<p>certification.</p> <ul style="list-style-type: none"> <li>• Candidates in the age group 18 to 45 years belonging to SC, OBC, Economically Backward Classes, Transgender community, Safai Karamcharis can apply for the training programme under PM-DAKSH.</li> <li>• The training is largely intended for rural artisans, domestic and sanitation workers.</li> </ul>
<b>Unlawful Activities (Prevention) Act</b>	<p><b>Context:</b> A senior leader of the terrorist organisation Jaish-e-Mohammed (JeM), Mohiuddin Aurangzeb Alamgir has been notified as a terrorist under the <a href="#">Unlawful Activities (Prevention) Act</a>.</p> <ul style="list-style-type: none"> <li>• He has been involved in Pulwama Central Reserve Police Force Convoy attack of 2019.</li> </ul> <p><b>About Unlawful Activities (Prevention) Act</b></p> <ul style="list-style-type: none"> <li>• The UAPA, an upgrade on the Terrorist and Disruptive Activities (Prevention) Act TADA (lapsed in 1995) and the Prevention of Terrorism Act – POTA (repealed in 2004) was passed in the year 1967</li> <li>• It aims at effective prevention of unlawful activities associations in India.</li> <li>• Till 2004, “unlawful” activities referred to actions related to secession and cession of territory.</li> <li>• The 2004 amendment, added “terrorist act” to the list of offences.</li> <li>• Under the act, the investigating agency can file a charge sheet in maximum 180 days after the arrests and the duration can be extended further after intimating the court.</li> <li>• <b>Powers to Union Government:</b> If Centre deems an activity as unlawful then it may, by way of an Official Gazette, declare it so.</li> <li>• It has death penalty and life imprisonment as highest punishments.</li> <li>• <b>2019 Amendment of UAPA:</b> The act was amended to designate individuals as terrorists on certain grounds provided in the Act.</li> </ul>
<b>Indigenous Intelligent Transportation Systems (ITS) Solutions for Indian Traffic Scenario</b>	<p><b>Context:</b> An indigenous Onboard Driver Assistance and Warning System – ODAWS, Bus Signal Priority System and Common SMart iot Connectiv (CoSMiC) software have been launched under Intelligent Transportation System Endeavor for Indian Cities Phase-II initiative of Ministry of Electronics and Information Technology (MeitY).</p> <p><b>Developed by:</b> Developed as a joint initiative by Centre for Development of Advanced Computing (CDAC) and Indian Institute of Technology Madras (IIT-M). Mahindra and Mahindra was the industrial collaborator for the project.</p> <p><b>Onboard Driver Assistance and Warning System – ODAWS</b></p> <ul style="list-style-type: none"> <li>• With improved highway infrastructure and increase in number of vehicles, speed on roads has increased, further exacerbating safety concerns.</li> <li>• As per Ministry of Road Transport and Highways of India (MoRTH), in around 84 percent of cases, “driver error” was cited as the cause of the accident. This assumes significance in the context of potential for technology applications for assisting and warning drivers in minimizing driving errors.</li> <li>• ODAWS incorporates vehicle-borne sensors for monitoring driver propensity and vehicle surroundings to <b>deliver acoustic and visual alerts</b> for driver assistance.</li> </ul>

	<ul style="list-style-type: none"> <li>• The positional and dynamic characteristics of surrounding vehicles are probed using <b>mmWave radar sensors</b>.</li> <li>• The ODAWS algorithm is used to interpret sensor data and offer real-time notifications to the driver, boosting road safety.</li> </ul> <p><b>Bus Signal Priority System</b></p> <ul style="list-style-type: none"> <li>• Poor reliability of public transport system is a major reason for people to opt for personal vehicles. Improving this is essential to attract more travellers to public transport, thus leading to a more sustainable traffic solution.</li> <li>• One of the major causes of delays for public transport buses in urban arterials is the delay at signalized intersections.</li> <li>• Bus signal priority System is an operational strategy that modifies normal traffic signal operations to better accommodate in-service public buses at signal-controlled intersections.</li> <li>• Unlike a blind priority that is given for emergency vehicles, here it is a conditional priority, which is given only when there is an overall reduction in delay for all vehicles.</li> <li>• The developed system will enable to minimize person delay by providing priority to public transport buses, either through Green extension or Red truncation, considering all vehicles approaching a signalized intersection.</li> </ul> <p><b>Common SMart iot Connectiv (CoSMiC)</b></p> <ul style="list-style-type: none"> <li>• It is a middleware software providing standard based deployment of IoT adhering to oneM2M based global standard.</li> <li>• It facilitates users and application service providers in various vertical domains to use application agnostic open standards and open interfaces for end to end communication with well-defined common service functionalities complying with oneM2M standard.</li> <li>• With this in view, CoSMiC common service layer is used to interface any vendor specific standards and for increasing interoperability with smart city dashboard.</li> <li>• CoSMiC provides an end-to-end solution for the seamless connection of IoT devices and applications.</li> </ul>
<p><b>Quota in Promotions</b></p>	<p><b>Context:</b> The Department of Personnel and Training (DoPT) has asked all Union government departments to collect data on inadequate representation of Scheduled Castes and Scheduled Tribes before implementing the policy of reservation in promotion in government offices.</p> <p><b>Key takeaways</b></p> <ul style="list-style-type: none"> <li>• It said that following a January 28 Supreme Court judgment, the Attorney-General opined that three conditions were to be met while implementing the policy of reservation in promotions.</li> <li>• These are: <ul style="list-style-type: none"> <li>○ Collection of quantifiable data regarding inadequacy of representation of Scheduled Castes and Scheduled Tribes;</li> <li>○ Application of this data to each cadre separately; and</li> <li>○ If a roster exists, the unit for operation of the roster would be the cadre or which the quantifiable data would have to be</li> </ul> </li> </ul>



	<p>collected and applied in regard to the filling up of the vacancies in the roster.</p> <ul style="list-style-type: none"> <li>The order said that all the Ministries and departments are required to ensure that the conditions are complied with before implementing reservation in promotions and carrying out any promotions based thereon.</li> </ul>
<b>33% reservation for women in civic bodies in Nagaland</b>	<p><b>Context:</b> Nagaland government is ready to implement a <b>33 per cent reservation for women</b> in the <b>civic body polls</b>.</p> <ul style="list-style-type: none"> <li>There is no longer any “impediment” in holding elections to the Urban Local Bodies (ULB), and Nagaland Election Commission can easily schedule dates.</li> <li>If implemented, ULB elections, a contentious subject in Nagaland, will be held in the state after more than a decade.</li> </ul> <p><b>Background</b>  <i>ULB polls have been a subject of <a href="#">controversy in Nagaland</a></i></p> <ul style="list-style-type: none"> <li>The civic body elections were first held in the state in 2004, in accordance with the Nagaland Municipal Act of 2001.</li> <li>In 2006, the Nagaland Municipal Act of 2001 was <b>amended to include a 33 per cent reservation for women</b> in line with the <b>1992 Constitutional amendment</b>.</li> <li><b>Reason for Opposition:</b> Many Naga groups contend that the reservations are in contravention with Naga customary laws as enshrined in <b>Article 371(A)</b> of the Constitution — which accords the state <b><i>special status and protects its traditional way of life</i></b>.</li> <li> <ul style="list-style-type: none"> <li>Nagaland is a special state under Article 371 A.</li> <li>It gives them special status to safeguard their traditional laws and according to their tradition, women are not allowed at administrative posts.</li> </ul> </li> <li>In February 2017, as the Nagaland government tried holding the elections as per a Supreme Court directive (to hold elections with 33 per cent reservation for women), the state was convulsed by <b><i>violent protests</i></b> that led to two deaths, and ouster of the then chief minister T R Zeliang.</li> <li><b>Is everyone in Nagaland opposed to it?:</b> Women’s groups like the Naga Mothers’ Association (NMA) stand on the other side of this debate, and have fought a long legal battle for elections to be held. They argue that reservations do not infringe upon Article 371(A) of the Constitution. <b>Their rationale:</b> Article 371 (A) related to laws made in the Parliament while the reservations had been effected through a Constitutional amendment.</li> </ul> <p>The contention around the polls led the Nagaland government in December 2009 to indefinitely postpone municipal elections, which were due in 2010.</p> <ul style="list-style-type: none"> <li>Despite the high court directing the government to hold the elections in 2011, the Nagaland assembly, in 2012, adopted a resolution <b>rejecting women’s reservation in ULBs</b>.</li> </ul>

	<ul style="list-style-type: none"> <li>• <b>October 2021:</b> A committee was formed by the state government to review the Municipality Act 2001.</li> <li>• <b>February 2022:</b> The Supreme Court rapped the Nagaland state government for delaying the elections, saying that an “important aspect of gender equality seems to be getting postponed.”</li> <li>• <b>March 2022:</b> The state government convened a meeting with all stakeholders, including civil society organisations, churches, tribal bodies, political parties and NGOs and “unanimously” adopted a resolution to hold ULB polls.</li> </ul> <p><b><u>Important value additions:</u></b></p> <ul style="list-style-type: none"> <li>• Article 371A deals with the special provisions with respect to the State of Nagaland.</li> <li>• Article 371A (1) (b) – the Governor of Nagaland has special responsibility with respect to law and order in the state so long as internal disturbances caused by the hostile Nagas continue.</li> <li>• For instance, under Article 371A (1) (b) of the Constitution, important functions like “transfer and posting of officials” entrusted with the maintenance of law and order of and above the district level will be with the approval of the Governor.</li> </ul>
<p><b>Maharashtra to restrict loudspeaker use at religious sites</b></p>	<p><b>Context:</b> The state government will now make it mandatory for religious sites to seek permission for using loudspeakers.</p> <p><b>Loudspeakers and existing Rules</b></p> <p>According to the Central Pollution Control Board, loudspeakers cannot be used in public places anywhere in the country unless permission has been taken from the local administration. However, permission regarding the same is taken in only 9 percent of the cases in India, and other times people use loudspeakers in public places without permission.</p> <ul style="list-style-type: none"> <li>• Under CPCB there should not be more than 75 Decibels during daytime and 70 Decibel during the night in an industrial area.</li> <li>• In residential areas, there should be 55 Decibels during the day and 45 Decibels during the night.</li> <li>• Whereas if an area is kept in the Silence Zone, then there cannot be more than 50 Decibels of noise during the day.</li> </ul> <p><b>In August 2016,</b> the Bombay High Court ruled that the <b>use of loudspeaker was not a fundamental right.</b></p> <ul style="list-style-type: none"> <li>• The Bombay High Court observed that no religion or sect could claim that the right to use a loudspeaker or a public address system was a fundamental right conferred by <b>Article 25</b> of the Constitution of India.</li> <li>• It further ordered that if a place of religion fell in a Silence Zone, the rules of not allowing use of loudspeakers and other forms of sound producing systems in such a zone should be adhered to by such religious places.</li> </ul> <p><b>Does it come under ‘essential religious practices’?</b></p> <p><b>Article 25</b> of the Constitution guarantees the “freedom of conscience and the right freely to profess, practise and propagate religion”. However, this right isn’t absolute and is subject to public order, morality, health, and other fundamental rights.</p>

	<ul style="list-style-type: none"> <li>While Article 25 itself does not read any other condition into the protection of this right, courts, over the years, have ruled that the right would protect only “essential religious practices” and not all religious practices. So, this test decides which religious practices are protected under the Constitution.</li> <li>Courts have adopted varied approaches to the test over the years. In some cases, they relied on religious texts to determine essentiality, in others on the empirical behaviour of followers, and in a few, on whether the practice in question existed at the time the religion originated.</li> <li>Court judgments on this test usually trace its origins to the debates of the Constituent Assembly, and attribute it to a speech given by Dr B.R. Ambedkar. <ul style="list-style-type: none"> <li>On 2 December 1948, Dr Ambedkar acknowledged that religious conceptions in India “cover every aspect of life, from birth to death”. However, he added, “There is nothing extraordinary in saying that we ought to strive hereafter to limit the definition of religion in such a manner that we shall not extend it beyond beliefs and such rituals as may be connected with ceremonies which are essentially religious.”</li> <li>He then asserted that “it is not necessary that the sort of laws, for instance, laws relating to tenancy or laws relating to succession, should be governed by religion.” Ambedkar’s use of the term “essentially religious” was cited by courts to introduce the essential religious practice test.</li> </ul> </li> </ul> <p><b>Current Status on the test:</b> A nine-judge bench is set to re-evaluate the “essential religious practice test”, among other issues related to Constitutional morality, and the interplay between freedom of religion under the Constitution and other fundamental rights.</p>
<b>National Panchayati Raj Day: 24th April</b>	<ul style="list-style-type: none"> <li>The Panchayati Raj system of local self-government was introduced by the <b>73rd Amendment of the Constitution of India</b>.</li> <li><b>Part IX</b> was inserted in the Constitution as a sequel to the 73rd Constitutional Amendment in 1993, bestowing the Constitutional mandatory status to the ‘Panchayats’.</li> <li><a href="#">Panchayat</a>, being “Local Government”, is a State subject and part of State list of Seventh Schedule of Constitution of India. Accordingly, the Panchayats are setup and operate through the respective State Panchayati Raj Acts.</li> <li>Article 243G of the Constitution of India empowers the Legislature of a State to make provisions, by law, for the devolution of power and responsibilities upon Panchayat at appropriate level.</li> </ul> <p><b>Note:</b> The <b>Cholas</b> were the pioneers in the formation of local bodies as part of a well-organised hierarchy to oversee the implementation of progressive plans.</p>
<b>The Olga Tellis judgment</b>	<p><b>Context:</b> A 37-year-old Constitution Bench judgment of the Supreme Court which held that <b>pavement dwellers are different from trespassers</b> may become a game-changer in the Jahangirpuri case.</p> <p><b>About the Case:</b></p> <ul style="list-style-type: none"> <li>The Olga Tellis vs Bombay Municipal Corporation judgment in 1985</li> </ul>

	<p>ruled that eviction of pavement dwellers using unreasonable force, without giving them a chance to explain is <b>unconstitutional</b>. It is a <b>violation of their right to livelihood</b>.</p> <ul style="list-style-type: none"> <li>• The judgment agrees that pavement dwellers do occupy public spaces unauthorised. However, they should be given a chance to be heard and a reasonable opportunity to depart “before force is used to expel them.</li> <li>• The case started in 1981 when the State of Maharashtra and the Bombay Municipal Corporation decided that pavement and slum dwellers in Bombay city should be evicted and “deported to their respective places of origin or places outside the city of Bombay.”</li> <li>• Pavement dwellers, too, have a right to life and dignity. The <b>right to life included the right to livelihood</b>. They earn a meagre livelihood by living and working on the footpaths.</li> </ul>
Key defence projects under ‘Make In India’ scheme	<p><b>Context:</b> Pushing for ‘Aatmanirbhar Bharat’ (self-reliant India), the Ministry of Defence has signed more than 180 contracts with the Indian industry between June 2014 and December 2019, worth approximately \$25.8 billion, under the ‘Make in India’ scheme. The Ministry of Defence has set a target of achieving a turnover of Rs 1.75 lakh crore in aerospace and defence goods and services by 2024, including exports of Rs 35,000 crore.</p> <p>Under the ‘Make in India’ scheme, Centre has notified <b>three lists of projects</b> —</p> <ul style="list-style-type: none"> <li>• Make I (90% government funded, with vendor)</li> <li>• Make II (prototype development of equipment/system/ platform or their upgrades with no government funding)</li> <li>• Make III (collaboration with foreign equipment manufacturer for production in India).</li> </ul> <p><b>Make-I:</b></p> <ul style="list-style-type: none"> <li>• Under this scheme, there are four Army projects — Indian Light Tanks, Terminal End Secrecy Device (TESD), Tactical Communication System (TCS), and Futuristic Infantry Combat Vehicle (FICV) — at various stages of progress.</li> <li>• There are also three Airforce projects — Airborne Electro Optical Pod with Ground Based System, Airborne Stand-Off Jammer, and Communication System with Indian Security Protocols.</li> <li>• The Make I projects are Centre-funded, relevant to the requirements of the Indian Armed forces, and in collaboration with domestic vendors chosen via tenders.</li> </ul> <p><b>Make-II:</b></p> <ul style="list-style-type: none"> <li>• These projects deal with manufacturing of prototypes, systems, and subsystems, mainly for import substitution or as innovative solutions.</li> <li>• They are funded by domestic manufacturers.</li> </ul> <p><b>Make-III:</b></p> <ul style="list-style-type: none"> <li>• Similar to Make-II projects, Make-III projects deal with production of defence prototypes, systems, and subsystems.</li> <li>• However, these will not be designed or developed indigenously, but manufactured in India as import substitution.</li> <li>• In these projects, an Indian vendor can enter into a joint venture with a foreign original equipment manufacturer.</li> </ul>



**The key projects under this scheme include**

- Setting up of defence corridors in Uttar Pradesh and Tamil Nadu
- Testing of indigenous defence products like Akash Surface to Air Missile System, Dhanush Artillery Gun system, Medium Range Surface to Air Missile (MRSAM), Agni-5, BrahMos, Pinaka Mk-I (Enhanced) Rocket System (EPRS) and Pinaka Area Denial Munition (ADM) rocket systems, helicopter-launched Anti-Tank Guided Missile 'HELINA'.

**Why the recent push for Make in India?**

- Amid the Russia-Ukraine war, India is awaiting the timely delivery of the S-400 air defence systems under a deal signed in 2018. The deal — worth \$5.43 billion — faces looming U.S. sanctions under CAATSA (Countering America's Adversaries Through Sanctions Act).
- In addition, several new deals are in the pipeline including 12 Su-30MKI aircraft and 21 MiG-29 fighter jets for the Indian Air Force.



<p><b>RBI's Monetary Policy Committee</b></p>	<p><b>Context:</b> The Reserve Bank of India's <a href="#">Monetary Policy Committee</a> on Friday raised its estimate for inflation in FY23 to 5.7%, from the 4.5% forecast in February before Russia invaded Ukraine.</p> <ul style="list-style-type: none"> <li>• RBI also held benchmark interest rates and retained its 'accommodative' stance. <ul style="list-style-type: none"> <li>○ But it would now turn its focus to the withdrawal of accommodation to ensure that inflation remains within the target.</li> </ul> </li> <li>• It also lowered its growth estimate for the current fiscal to 7.2%.</li> </ul> <p><b>What is an accommodative stance?</b></p> <ul style="list-style-type: none"> <li>• An <a href="#">accommodative stance</a> means that there is room for lowering interest rates in the future to revive growth and demand in the economy.</li> <li>• Accommodative monetary policy, also known as loose credit or easy monetary policy, occurs when a central bank attempts to expand the overall money supply to boost the economy when growth is slowing (as measured by GDP).</li> <li>• The policy is implemented to allow the money supply to rise in line with national income and the demand for money.</li> </ul> <p><b>What is the Monetary Policy Committee?</b></p> <ul style="list-style-type: none"> <li>• Urjit Patel committee in 2014 recommended the establishment of the Monetary Policy Committee.</li> <li>• It is a statutory and institutionalized framework under the Reserve Bank of India Act, 1934, for maintaining price stability, while keeping in mind the objective of growth.</li> <li>• <b>Composition:</b> Six members (including the Chairman) – three officials of the RBI and three external members nominated by the Government of India.</li> <li>• The Governor of RBI is ex-officio Chairman of the committee</li> <li>• <b>Functions:</b> The MPC determines the policy interest rate (repo rate) required to achieve the inflation target (presently 4%). Decisions are taken by majority with the RBI Governor having the casting vote in case of a tie.</li> </ul>
<p><b>Debt default</b></p>	<p><b>Context:</b> <a href="#">Sri Lanka</a> has recently announced a debt default on all its foreign debt totalling \$51 billion as a "last resort".</p> <ul style="list-style-type: none"> <li>• Despite economic strains in the past, Sri Lanka had maintained an unblemished record of debt servicing that made the country a favourable partner for creditors.</li> <li>• Meanwhile, the Governor of the Central Bank of Sri Lanka has sought donations of "much-needed foreign exchange" from Sri Lankans living abroad, to augment the country's reserves as it grapples with severe shortages of food, fuel, and medicines.</li> </ul> <p><b>What is a Debt Default?</b></p> <ul style="list-style-type: none"> <li>• A debt default happens when a borrower fails to pay his or her loan at</li> </ul>

	<p>the time it is due.</p> <ul style="list-style-type: none"> <li>• The time a default happens varies, depending on the terms agreed upon by the creditor and the borrower.</li> <li>• Some loans default after missing one payment, while others default only after three or more payments are missed.</li> <li>• In such an event, serious repercussions can happen, such as getting a poor credit rating. <ul style="list-style-type: none"> <li>○ Credit represents an individual's ability to borrow money.</li> <li>○ When an individual applies for a loan, whether secured or unsecured, the creditor looks at the person's credit score because it helps determine if the person is likely to be able to pay back the loan and its interest.</li> </ul> </li> </ul>
<b>Retail inflation nears 7%</b>	<p><b>Context:</b> Retail inflation accelerated sharply to 6.95% in March, the fastest pace of price gains in almost a year and a half, and marked the third straight month when inflation exceeded the Reserve Bank of India's tolerance threshold of 6%.</p> <p><b>What is retail inflation?</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Retail inflation</a> tracked by the Consumer Price Index (CPI) measures the changes in prices from a retail buyer's perspective.</li> <li>• Wholesale inflation, which is tracked by the Wholesale Price Index (WPI), measures inflation at the level of producers.</li> </ul> <p><b>What Is the Consumer Price Index (CPI)?</b></p> <ol style="list-style-type: none"> <li>1. The <a href="#">Consumer Price Index (CPI)</a> is a measure that examines the weighted average of prices of a basket of consumer goods and services, such as transportation, food and medical care.</li> <li>2. It is calculated by taking price changes for each item in the predetermined basket of goods and averaging them.</li> <li>3. Changes in the CPI are used to assess price changes associated with the cost of living;</li> <li>4. The CPI is one of the most frequently used statistics for identifying periods of inflation or deflation.</li> </ol>
<b>South Asia Economic Focus Reshaping Norms: A new Way Forward</b>	<p><b>Context:</b> The World Bank released its bi-annual South Asia Economic Focus Reshaping Norms: A New Way Forward, recently.</p> <p><b>Key highlights</b></p> <ul style="list-style-type: none"> <li>• India is projected to grow at 8% over the current fiscal year (April 1-March 31), and 7.1% over the next (2023-24) fiscal year.</li> <li>• For the South Asia region, growth is expected to be slower than projected, by 1 percentage point, at 6.6% in 2022 and 6.3% next calendar year.</li> <li>• This is due to Russia's war on Ukraine, which has impacted the region, when it was already experiencing "fragile" growth, rising commodity prices, bottlenecks to supply and financial sector vulnerabilities.</li> </ul>
<b>Production Linked Incentive (PLI) Scheme for Textiles</b>	<p><b>Context:</b> A total of 61 applicants has been approved.</p> <ul style="list-style-type: none"> <li>• Government approved PLI Scheme for Textiles products for enhancing India's manufacturing capabilities and enhancing exports with an approved financial outlay of Rs 10,683 crore over a five-year period</li> <li>• Government reduced import duty of cotton to zero</li> </ul>

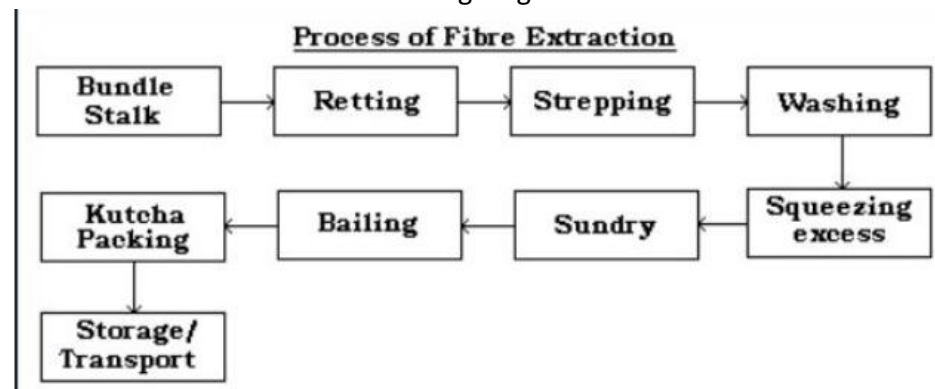
	<ul style="list-style-type: none"> <li>• <b>Objective:</b> To help India regain its historical dominant status in global textiles trade.</li> </ul> <p><b>Key features of the scheme</b></p> <ul style="list-style-type: none"> <li>• The incentives shall encourage investment in new capacities in man-made fibre (MMF) apparel, MMF fabrics, and 10 segments or products of technical textiles.</li> <li>• The scheme shall help attract investment of more than Rs. 19,000 crore, creating an additional 7.5 lakh direct jobs.</li> <li>• There will be two levels of investment with different sets of incentives. <ul style="list-style-type: none"> <li>○ In the first category, any person or firm can invest a minimum Rs. 300 crore in plant, machinery, and civil works to produce the identified products to ensure eligibility for the PLI.</li> <li>○ In the second category a minimum investment of Rs. 100 crore would make an individual or firm eligible to apply for the incentives.</li> </ul> </li> <li>• Priority would be given for investment in aspirational districts, tier-three, tier-four towns and rural areas.</li> <li>• The scheme is expected to benefit States such as Gujarat, U.P., Maharashtra, Tamil Nadu, Punjab, Andhra, Telangana and Odisha.</li> <li>• Applicants would have two years as investment period and 2024-2025 would be the 'performance' year. The incentive flow would start in 2025-2026 and extend for five years.</li> </ul> <p><b>Significance of the Textiles Sector</b></p> <ul style="list-style-type: none"> <li>• Textiles &amp; garments industry is a labour intensive sector that employs 45 million people in India.</li> <li>• It is second only to the agriculture sector in terms of employment.</li> <li>• It contributes 2.3% to Indian GDP, 7% of Industrial Output, 12% to the export earnings of India and employs more than 21% of total employment.</li> <li>• India is the 6th largest producer of Technical Textiles with 6% Global Share, largest producer of cotton &amp; jute in the world.</li> <li>• Technical textiles are functional fabrics that have applications in industries such as automobiles, civil engineering and construction,</li> <li>• India is also the second largest producer of silk in the world and 95% of the world's hand woven fabric comes from India.</li> <li>• Two-thirds of India's textile exports now are cotton based whereas 66-70% of world trade in textiles and apparel is MMF-based and technical textiles.</li> </ul>
<p><b>Jute Mills of West Bengal</b></p>	<p><b>Context:</b> With over a dozen jute mills closed in West Bengal and thousands of workers out of job, the Indian Jute Mill Association (IJMA), an association of manufacturers, have approached the Centre seeking intervention so that <b>prices of raw jute are revised</b> and the mills resume operation. The crisis in the mills has caused <b>a job loss for 60,000 workers</b>.</p> <p><b>Background</b></p> <ul style="list-style-type: none"> <li>• The distress was caused by the Jute Commissioner's Office, which imposed a "reasonable" price cap of Rs 6,500 per quintal of raw jute purchased in West Bengal.</li> </ul>



- Stock to user [SUR] has fallen by 84% and jute yield is stagnant for five years.
- There is 70% shortage of credible seeds needed for robust cultivation.
- In November 2021, New Delhi made it mandatory to use jute bags to pack all foodgrains and 20 percent of sugar for the Jute Year 2021-22, ignoring the crisis that had been boiling in the jute industry. As a result, in November and December last year, the industry incurred **a loss of Rs 1,500 crores**. It failed to produce the 4.8 lakh bales of jute bags required by the government, due to the shortage of raw jute caused majorly by the Centre's own decision. The jute bags were then replaced by a non-biodegradable, fossil fuel substitute: plastic bags.
- The central government has also alleged that farmers and traders are stocking raw jute to create a shortage of supply and increase the price of the fibre in the market. The Centre has, thus, made it mandatory to **sell raw jute within 45 days of harvesting**.

#### Jute

- Jute requires a warm and humid climate with temperature between 24° C to 37° C.
- Jute is largely grown in the delta shared by West Bengal and southwest Bangladesh, and in parts of Assam, Meghalaya and Tripura in the period between February/March and May/June, before the monsoon.
- West Bengal is considered the hub of India's jute industry, valued around Rs 10,000 crore, and in 2016 the state housed 70 of the 93 mills in India. The long, soft, shiny bast fibre is used to produce bags, hessians, twines, ropes, mats and several other textile blends.
- Fully biodegradable and recyclable. A hectare of jute plants consumes about 15 tonnes of carbon dioxide and releases 11 tonnes of oxygen.
- Cultivating jute in crop rotations enriches the fertility of the soil for the next crop. Jute also does not generate toxic gases when burnt,
- Constant rain or water-logging is harmful.
- The new gray alluvial soil of good depth, receiving salt from annual floods, is best for jute.
- The jute plant's fibres lie beneath the bark and surrounded the woody central part of the stem. To extract the fibres from the stem, the process is carried out in the following stages :



#### Jute and India

- Known as the golden fibre, jute was once the most important industry in

	<p>India after cotton.</p> <ul style="list-style-type: none"> <li>By the 1910s, Calcutta Mills had become the world's largest jute producer, employing more than 300,000 people.</li> <li>Bengal soon established a monopoly on the jute industry, after the golden fibre found military use in the Crimean War, and later the First World War.</li> <li>The jute industry in India received its first major blow when Bengal was divided into West Bengal and East Pakistan (now Bangladesh). After the partition, 75 percent of the jute-growing land went to East Pakistan, while all the mills remained in India, mostly in West Bengal</li> </ul>
<b>India's Consumption of Semiconductors</b>	<p><b>Context:</b></p> <ul style="list-style-type: none"> <li>The government has received proposals from five companies for setting up the electronic chip and display manufacturing plants with an investment of ₹1.53 lakh crore under the Semicon India Programme.</li> <li>India will consume semiconductors of around \$70-80 billion to manufacture electronics products worth \$300 billion by 2026 as envisaged in the government's vision document.</li> </ul> <p><b>India Semiconductor Mission (ISM)</b> has been setup to formulate and drive India's long term strategies for developing semiconductors and display manufacturing facilities and semiconductor design ecosystem.</p> <ul style="list-style-type: none"> <li>Will enable a multi-fold growth of Indian semiconductor design industry by providing requisite support in the form of Electronic Design Automation (EDA) tools, foundry services and other suitable mechanisms for early-stage startups.</li> <li>It will also promote and facilitate indigenous Intellectual Property (IP) generation and encourage, enable and incentivize Transfer of Technologies (ToT).</li> <li>ISM will also enable collaborations and partnership programs with national and international agencies, industries and institutions for catalyzing collaborative research, commercialization and skill development.</li> </ul> <p><b>Significance of the Sector</b></p> <ul style="list-style-type: none"> <li>Semiconductor chips are integral parts of the power train, chassis, safety systems, advanced driver assistance systems, and other parts of automobiles.</li> <li>They are used more in passenger vehicles compared to commercial vehicles or two-wheelers</li> <li>The move to electric vehicles has led to increased demand of chips. For example, a Ford Focus typically uses roughly 300 chips, whereas one of Ford's new electric vehicles can have up to 3,000 chips</li> <li>With supply of semiconductor chips slowing down, the production in automobile sector is also adversely impacted.</li> </ul> <p><b>Do You Know?</b></p> <ul style="list-style-type: none"> <li>It is estimated that the semiconductor industry is growing fast and can reach \$1 trillion dollar in this decade.</li> <li>India can grow fast and reach \$64 billion by 2026 from \$27 billion today.</li> </ul>

	<ul style="list-style-type: none"> <li>• Mobiles, wearables, IT and industrial components are the leading segments in the Indian semiconductor industry contributing around 80% of the revenues in 2021.</li> <li>• The mobile and wearables segment is valued at \$13.8 billion and is expected to reach \$31.5 billion in 2026</li> </ul>
India's first pure green hydrogen plant commissioned	<p><b>Context:</b> Oil India Limited (OIL) has taken the first significant step towards Green Hydrogen Economy in India with the commissioning of <b>India's First 99.999% pure Green Hydrogen pilot</b> plant, with an installed capacity of 10 kg per day at its <b>Jorhat</b> Pump Station in <b>Assam</b>.</p> <ul style="list-style-type: none"> <li>• Produces Green Hydrogen from the electricity generated by the existing 500kW Solar plant using a 100 kW Anion Exchange Membrane (AEM) Electrolyser array. The use of AEM technology is being used for the first time in India.</li> <li>• Expected to increase its production of green hydrogen from 10 kg per day to 30 kg per day in future.</li> </ul> <p><b>Green Hydrogen</b> Green hydrogen is hydrogen gas produced through electrolysis of water — an energy intensive process for splitting water into hydrogen and oxygen— using renewable power to achieve this.</p> <p><b>Green hydrogen has specific advantages –</b></p> <ul style="list-style-type: none"> <li>• <b>Environment Friendly:</b> Green Hydrogen as energy source is seen as the next big thing as its usage would lead to zero emissions</li> <li>• <b>Potential to Decarbonise various sectors:</b> It is a clean burning molecule, which can decarbonise a range of sectors including iron and steel, chemicals, and transportation.</li> <li>• <b>Efficient utilization of Renewable Energy:</b> Renewable energy that cannot be stored or used by the grid can be channelled to produce hydrogen.</li> <li>• <b>Reduced Dependence on Rare Minerals:</b> Green Hydrogen also holds the key to clean electric mobility that doesn't depend on rare minerals. Green Hydrogen helps achieve long-term vision of reduced dependency on minerals and rare-earth element-based battery as energy storage.</li> <li>• <b>Helps Achieve Paris Goal:</b> Green hydrogen energy is vital for India to meet its Nationally Determined Contributions and ensure regional and national energy security, access and availability</li> <li>• <b>Energy Security:</b> Green energy helps reduce import dependency on fossil fuels</li> </ul> <p><b>Challenges with regard to Hydrogen Fuel</b></p> <ul style="list-style-type: none"> <li>• <b>Fuelling Infrastructure:</b> A big barrier to the adoption of hydrogen fuel cell vehicles has been a lack of fuelling station infrastructure — fuel cell cars refuel in a similar way to conventional cars, but can't use the same station (only 500 in the world &amp; that too in Europe, Japan, South Korea)</li> <li>• <b>Safety is seen as a concern:</b> Hydrogen is pressurised and stored in a cryogenic tank, from there it is fed to a lower-pressure cell and put through an electro-chemical reaction to generate electricity.</li> <li>• <b>Scaling up the technology and achieving critical mass remains</b> the big challenge. More vehicles on the road and more supporting</li> </ul>

	infrastructure can lower costs.
<b>India Post Payments Bank launches 'Fincluvation'</b>	<p><b>Context:</b> India Post Payments Bank (IPPB), a 100% government-owned entity under the Department of Posts (DoP) announced the launch of Fincluvation— a joint initiative to collaborate with the Fintech Startup community to co-create and innovate solutions for financial inclusion.</p> <ul style="list-style-type: none"> <li>Startups are encouraged to develop solutions aligned with any of the following tracks- <ul style="list-style-type: none"> <li>Creditization – Develop Innovative &amp; Inclusive credit products aligned with the use cases of target customers and take them to their doorsteps through the Postal network.</li> <li>Digitization – Bring convenience through the convergence of traditional services with Digital Payment Technologies such as making the traditional Money Order service an Interoperable Banking service.</li> <li>Any Market-led solutions that can help solve any other problem relevant to IPPB and/or DoP in serving the target customers</li> </ul> </li> </ul> <p>The intersection of technology with financial services coupled with traditional distribution networks is opening up a new set of business opportunities.</p> <p><b>About India Post Payments Bank</b></p> <ul style="list-style-type: none"> <li>Established under the Department of Posts, Ministry of Communication</li> <li>Set up with the vision to build the most accessible, affordable, and trusted bank for the common man in India.</li> <li>The fundamental mandate of IPPB is to remove barriers for the unbanked and under-banked and reach the last mile by leveraging a network comprising 160,000 post offices (145,000 in rural areas) and 400,000 postal employees.</li> </ul>
<b>India's operational research stations at the South Pole</b>	<p><b>Context:</b> One of India's research stations in Antarctica, Maitri, which has been operational for over 35 years, needs urgent upgradation, work towards which is being done by the National Centre for Polar and Ocean Research (NCPOR).</p> <ul style="list-style-type: none"> <li>India has two operational research stations at the South Pole — Maitri and Bharati.</li> <li><b>Dakshin Gangotri, the first station built</b> before 1985, is now operating as a base transit camp mainly for <b>supplying goods</b>.</li> <li>Built during 1988-1989 to operate for a period of ten years, <b>Maitri</b> is an important station that allows scientists to <b>collect geological, meteorological and geophysical data</b>. This data is useful in understanding and drawing timely inferences about climate change and other scientific areas.</li> </ul> <p><b>India and Oceans:</b></p> <p>India is among the few nations to have dedicated ocean missions.</p> <ul style="list-style-type: none"> <li>Two years ago, India announced a Rs 4,000-crore <a href="#">Deep Ocean Mission</a> to be spearheaded by the MoES.</li> <li>India has also announced projects that will contribute to the Blue Economy, envisioned over the next decade.</li> </ul> <p><b>Note:</b></p> <ul style="list-style-type: none"> <li>The US, UK, France, Chile, Belgium, Australia, and Germany are among the leading nations with multiple research stations at the South Pole.</li> </ul>

	<ul style="list-style-type: none"> <li>With the United Nations has declared <b>2021–2030 as the Decade of Ocean Science</b> for Sustainable Development, there are a number of initiatives, including improving coastal livelihoods, protecting sea and ocean, ocean literacy, and restoring coral reefs, aimed at increasing the resourcefulness of the oceans.</li> </ul>
<b>MSME Sustainable (ZED) Certification Scheme</b>	<p><b>Context:</b> The MSME Sustainable Certification scheme has been launched..</p> <ul style="list-style-type: none"> <li>This Scheme is an extensive drive to enable and facilitate MSMEs to adopt Zero Defect Zero Effect (ZED) practices and motivate and incentivize them for ZED Certification while also encouraging them to become MSME Champions.</li> <li>Through the journey of ZED Certification, MSMEs can reduce wastages substantially, increase productivity, enhance environmental consciousness, save energy, optimally use natural resources, expand their markets, etc.</li> <li>ZED aims to provide a roadmap to global competitiveness for the MSMEs of India.</li> <li>ZED will not only attempt to improve productivity &amp; performance, it has the capability to change the mind-set of manufacturers and make them more environmentally conscious.</li> </ul> <p><b>Significance</b></p> <p><b>The sector faces finance-related problems due to three main factors</b></p> <ol style="list-style-type: none"> <li>1. Absence of viable <b>credit providers</b></li> <li>2. <b>Absence of credit products</b> and schemes such as micro-insurance that help enterprises tide over business downturns</li> <li>3. <b>Delayed payments</b> leading to a persistent crunch in working capital. The average number of days it takes for enterprises to receive cash for the credit sale are 176, 112 and 81 days for micro, small and medium enterprises, respectively.</li> </ol> <p><i>Delayed payments entail four kinds of costs for firms —</i></p> <ul style="list-style-type: none"> <li>Costs in retrieving payments in the form of personnel, time and effort;</li> <li>Interest forgone beyond the prescribed period;</li> <li>Business forgone due to working capital crunch;</li> <li>Losses due to non-reconciliation.</li> </ul> <p><b>About ZED</b></p> <p><i>ZED is based on the principle of:</i></p> <ul style="list-style-type: none"> <li><b>Zero Defect</b> – Production mechanisms wherein products have no defects</li> <li><b>Zero Effect</b> –Production processes that have no adverse environmental and ecological effects.</li> </ul> <p><i>Significance for MSME Sector</i></p> <ul style="list-style-type: none"> <li><b>Export Competitiveness</b> – Through better quality products, and also due to manufacturing space created by China owing to huge increase in its factory wages.</li> <li><b>Domestic consumer base</b> –Better quality products will attract more customers.</li> <li><b>Improved profits</b> –Through technological up-gradation, use of Intellectual Property Rights, reduced wastage and increased</li> </ul>



productivity.

- **Reduced costs** –Energy efficiency, waste recycling, and better production processes.
- **Increased investments** –With a more environmentally aware world, it's easy to access credit for green initiatives.
- **Awards and Recognition** –Help build a brand image for the MSMEs through the “ZED Mark” and showcase them globally.
- **Environmental responsibility** –Make them ‘Responsible Manufacturers’ and in long run make them sustainable businesses.
- **Boost to Startup Culture** –Governmental handholding, innovative solutions, and newer technology.



<b>Irrawaddy dolphins</b>	<p><b>Context:</b> The dolphin population along Odisha's coast and in its waterbodies has increased but the number of Irrawaddy dolphins in Chilika lake has fallen.</p> <p><b>Irrawaddy dolphins:</b></p> <ul style="list-style-type: none"> <li>• Endangered — IUCN</li> <li>• Living in brackish water near coasts, river mouths and in estuaries in South and Southeast Asia</li> <li>• Found in – Ganges, Mekong and Irrawaddy river system</li> </ul> <p><b>Chilika Lake:</b> Chilika Lake It is largest coastal lagoon or brackish water lake in India and Asia and second largest lagoon in the world</p>
<b>Olive Ridley turtles</b>	<p><b>Context:</b> As a record number of 4.92 lakh Olive Ridley turtles have crawled to the Rushikulya coast in Odisha, scientists have tagged more than 6,000 turtles to gather more information about their breeding behaviour and migration.</p> <ul style="list-style-type: none"> <li>• This is the highest nesting which has broken all records for the coast.</li> <li>• Before the tagging of the turtles, it was assumed that it was a migratory species.</li> <li>• Now the tagging has revealed that the Olive Ridley turtles can travel up to Sri Lanka.</li> <li>• Also, the migratory turtle is present in the entire Bay of Bengal and even on the coast of Andhra Pradesh and Tamil Nadu.</li> </ul> <p><b>Olive Ridley</b></p> <ul style="list-style-type: none"> <li>• The Olive Ridley sea turtle is the most abundant of all sea turtles found in the world.</li> <li>• It is found in warm and tropical waters, primarily in the Pacific and Indian Oceans.</li> <li>• It is best known for their unique mass nesting called arribada, where thousands of females come together on the same beach to lay eggs.</li> <li>• <b>IUCN status:</b> Vulnerable.</li> </ul> <p><b>Marine Turtles</b></p> <ul style="list-style-type: none"> <li>• Five species of sea turtles are known to inhabit Indian coastal waters and islands. <ul style="list-style-type: none"> <li>○ Olive Ridley turtle</li> <li>○ Green turtle</li> <li>○ Hawksbill turtle</li> <li>○ Loggerhead turtle</li> <li>○ Leatherback turtle</li> </ul> </li> <li>• Except the Loggerhead, the remaining four species nest along the Indian coast.</li> </ul>
<b>IPCC report on Mitigation of Climate Change</b>	<p><b>Context:</b> The IPCC's Working Group III report, Climate Change 2022 discusses numerous strategies to limit greenhouse gas (GHG) emissions in different sectors and presents realistic calculations to stop global mean temperature increase by 1.5°C and 2°C. The report is the third instalment of the IPCC's Sixth Assessment Report (AR6), which will be completed this year. The Report is a major contribution of IPCC to the global fight against climate change.</p> <ul style="list-style-type: none"> <li>• Average annual global GHG emissions were at their highest levels in</li> </ul>

human history between 2010 and 2019. But the rate of growth of these emissions has slowed down.

- Since 2010, there have been sustained decreases of up to 85 per cent in the costs of solar and wind energy and batteries. This, along with an increasing range of policies and laws, has enhanced energy efficiency, reduced rates of deforestation and accelerated the use of renewable energy.

#### Key Highlights

- IPCC report on Mitigation of Climate Change scientifically establishes India's position on the **historical responsibility of developed countries** for consuming the carbon budget
- Report underlines the need for deep and urgent global emissions reduction and justifies India's emphasis on **equity at all scales in climate action and sustainable development**. Equity remains a central element in the UN climate regime, notwithstanding shifts in differentiation between states over time and challenges in assessing fair shares. Equity is essential for
  - The social and economic transformation required for climate mitigation,
  - Manage the negative consequences of climate mitigation on vulnerable populations,
  - Enable just transition towards low-emissions development,
  - And ensure sustainable development.
- Report endorses India's position on the **need for scale, scope and speed in climate finance**;
  - Tracked financial flows fall short of the levels needed to achieve mitigation goals across all sectors and regions. The challenge of closing gaps is largest in developing countries as a whole.
  - Public finance falls short of the Copenhagen (reiterated when the Paris Agreement was signed) goal of USD 100 billion per year by 2020.
  - Accelerated financial support for developing countries from developed countries and other sources is a critical enabler to enhance mitigation action and address inequities in access to finance, including its costs, terms and conditions and economic vulnerability to climate change for developing countries.
- Four-fifths of the **total carbon budget** for 1.5 deg C temperature increase and two-thirds of the total carbon budget for 2 deg C warming has been already consumed
  - Both cumulative and per capita annual emissions rose during the pre-2020 period. Pre-2020 emissions reduction in developed countries has been insufficient in comparison to the developing world's needs for sustainable development.
  - Both historical cumulative emissions and per capita annual emissions show that India's role (as part of South Asia) is minimal.
- The Report endorses India's view on the need for curbing unsustainable

	<p>consumption.</p> <ul style="list-style-type: none"> <li>○ Changes in lifestyle and behaviours have a significant role to play in mitigating climate change.</li> <li>○ India was instrumental in ensuring the inclusion of “climate justice” and “sustainable lifestyles and sustainable patterns of consumption and production” in the preamble of the Paris Agreement.</li> <li>○ India believes that utilization of resources must be based on ‘Mindful and Deliberate Utilization’ and NOT ‘Mindless and Destructive Consumption’. Prime Minister, Shri Narendra Modi gave a clarion call of <a href="#">L.I.F.E. – Lifestyles for Environment</a> at <a href="#">COP26 at Glasgow</a>.</li> </ul> <p><b>Initiatives by India:</b></p> <p>India has taken tremendous actions to address the threat of global climate change by taking several initiatives including, inter-alia,</p> <ul style="list-style-type: none"> <li>• Setting up of <a href="#">International Solar Alliance</a></li> <li>• Coalition for <a href="#">Disaster Resilient Infrastructure</a></li> <li>• <a href="#">‘One Sun, One World, One Grid’</a></li> <li>• <a href="#">Infrastructure for Resilient Island States</a></li> <li>• Raising the domestic renewable energy target to <a href="#">500 GW by 2030</a></li> <li>• Putting in place an ambitious <a href="#">National Hydrogen Mission</a></li> <li>• ...and continuing efforts to decouple its emissions from economic growth.</li> </ul> <p><b>What is Intergovernmental Panel on Climate Change (IPCC)?</b></p> <ul style="list-style-type: none"> <li>• It is an international body set up in 1988 by the World Meteorological Organization (WMO) and United Nations Environment Programme (UNEP) to provide policymakers with <ul style="list-style-type: none"> <li>○ Regular assessments of the scientific basis of climate change</li> <li>○ Impacts and future risks associated with Climate Change</li> <li>○ Options for adaptation and mitigation for Climate Change</li> </ul> </li> <li>• Membership of the IPCC is open to all members of the WMO and the UNEP.</li> <li>• IPCC assessments provide a scientific basis for governments at all levels to develop climate-related policies and also underlie climate negotiation at International level.</li> <li>• The main objective of UNFCCC is to stabilize greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.</li> </ul> <p><b>MUST READ:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">IPCC’s Sixth Assessment Report, “Climate Change 2021: The Physical Science Basis”</a></li> <li>• <a href="#">IPCC New Climate Report</a></li> </ul>
<p><b>Melting of Himalayan Glaciers</b></p>	<p><b>Context:</b> Several Indian institutes/universities/organizations monitor Himalayan glaciers for various scientific studies including glacier melting and have reported accelerated heterogeneous mass loss in Himalayan glaciers. Majority of Himalayan glaciers are observed melting/ retreating at varying rates in different regions.</p>

- Melting glaciers have significant impact on water resources of Himalayan rivers due to change in glacier basin hydrology, downstream water budget, impact on hydropower plants due to variation in discharge, flash flood and sedimentation.
- They also increase in risk related to glacier hazards due to enhanced number and volume of glacier lakes, accelerated flash flood and [Glacial Lake Outburst Floods \(GLOFs\)](#), impact on agro practices in high Himalayan region etc.
- The melting of glaciers is a natural process and cannot be controlled. However, melting of glaciers does increase the risks related to glacier hazards.

**Glacier melting in HKH region is caused by:**

- larger anthropogenic modifications of the atmosphere
- disruption in weather patterns and precipitation due to global warming
- changes in Glacier volume
- Unplanned urbanization

**Impact**

- Threatens climate as well as monsoon patterns
- It impacts 10 major river systems which help in agricultural activities, provide drinking water and hydro electricity production in the region
- socio-economic disruption and human displacement

**VALUE ADDITION**

**A. Pattern of losses of ice bodies in different parts of the world:**

*Antarctica: Retreating of glaciers*

- Antarctica encompasses land, island and oceans south of 60° latitude. This region stores about 70% of the world's fresh water in the form of snow and ice.
- The World Meteorological Organisation (WMO) has confirmed that the region is one of the fastest warming regions of the planet. Over the past 50 years, it has warmed over 3°C.
- The annual ice loss in the Antarctic region has increased at least six folds between 1979 and 2017.
- 87% of glaciers along the West Coast of the Antarctic Peninsula have retreated in the last 50 years with most of these showing accelerated retreats in the past 12 years.

*Arctic and Antarctic region: Glaciers Melting from the Bottom*

- Glaciers in Greenland and Antarctica are losing ice at alarming rates, and warmer air isn't the only cause.
- Scientists increasingly agree that warm ocean water is seeping beneath the ice and melting it from the bottom up.
- Breaking of Larsen C ice shelf in Antarctica and several smaller ice shelves in the Arctic are a result of global warming.

*Ice mass loss in the Russian Arctic:*

- Ice mass loss in the Russian Arctic has nearly doubled over the last decade according to Cornell University research published in the journal Remote Sensing of Environment.
- Glaciers there are shrinking by area and by height. We are seeing an



	<p>increase in the recent speed of ice loss, when compared to the long-term ice-loss rate.</p> <p><b>South America:</b></p> <ul style="list-style-type: none"> <li>• The 18,000-year-old Chacaltaya glacier in the Bolivian Andes disappeared.</li> <li>• In Ecuador, an avalanche at the base of the Cayambe glacier occurred. Also, an avalanche caused serious damage in the area of Pampa Linda.</li> <li>• These isolated avalanches confirm the trend towards the collapse of the Andean glaciers.</li> </ul> <p><b>B. Following necessary steps can be taken to contain the ice bodies' loss:</b></p> <ul style="list-style-type: none"> <li>• In order to stop the temperature from rising, the only solution is to cool the planet as advised by the scientists. For this, the world not only needs to slow down greenhouse gas emissions but also reverse them.</li> <li>• There are around 1,98,000 glaciers in the world and India alone has about 9,000 of them. However, all of these glaciers are mostly unexplored. More detailed research is required to fully understand the state of glaciers and the risk their loss poses.</li> <li>• Reduce black carbon emissions from – (1) cookstoves; (2) Diesel engines; (3) Open burning. It could significantly reduce radiative forcing</li> <li>• Steps to be Taken by Regional Governments: <ul style="list-style-type: none"> <li>○ Review the policies on water management</li> <li>○ Careful planning and use of hydropower to reflect changes in water flows and availability.</li> <li>○ Increasing the efficiency of brick kilns through proven technologies.</li> <li>○ Greater knowledge sharing in the region.</li> </ul> </li> </ul> <p><b>C. HKH extends over 8 countries – Afghanistan, Bhutan, Bangladesh, China, India Myanmar, Nepal and Pakistan</b></p> <ul style="list-style-type: none"> <li>• It contains the world's third largest storage of frozen water after Antarctica and Arctica</li> <li>• It is also referred as the third pole of the world.</li> </ul>
<b>Indian Tent Turtles</b>	<p><b>Context:</b> Indian tent turtle is listed in Schedule –I of the Wild Life (Protection) Act, 1972 and is thereby provided the highest degree of protection.</p> <ul style="list-style-type: none"> <li>• The species is endemic to India and Bangladesh.</li> <li>• A semi-aquatic species, mainly found in river and associated systems.</li> <li>• Reproduction is oviparous.</li> <li>• Damming of river, habitat degradation are other factors posing a great threat to the population.</li> </ul> <p>The Government has taken several <b>steps to protect wildlife and its habitats</b> including for Indian tent turtle species:</p> <ul style="list-style-type: none"> <li>• Protected Areas, viz., National Parks, Wildlife Sanctuaries, Conservation Reserves and Community Reserves have been created in the country covering important habitats to provide better protection to wildlife, including threatened species and their habitat.</li> <li>• Financial assistance is provided to the State/Union Territory Governments under the Centrally Sponsored Scheme of 'Integrated Development of Wildlife Habitats', for providing better protection to</li> </ul>

	<p>wildlife and improvement of habitat.</p> <ul style="list-style-type: none"> <li>• The Wild Life (Protection) Act, 1972 provides for stringent punishment for violation of its provisions. The Act also provides for forfeiture of any equipment, vehicle or weapon that is used for committing wildlife offence(s).</li> <li>• The local communities are involved in conservation measures through eco-development activities which help the forest departments in protection of wildlife.</li> <li>• The Wildlife Crime Control Bureau (WCCB) coordinates with State/UTs and other enforcement agencies to gather intelligence about poaching and unlawful trade in wild animals and animal articles.</li> </ul>
<b>Carbon capture and utilization</b>	<p><b>Context:</b> A group of scientists from Indian Institute of Chemical Technology, IICT, Hyderabad have designed a hybrid material which can absorb greenhouse gas methane and convert it to clean hydrogen.</p> <p><b>Key takeaways</b></p> <ul style="list-style-type: none"> <li>• They have simulated a process of capturing carbon dioxide and converted it to high purity hydrogen from non-fuel grade bioethanol.</li> <li>• These scientists have also designed a facility that can test such materials and help further carbon capture research at the institute.</li> <li>• The Ministry of Science and Technology in a statement said that these new materials and processes for carbon capture and utilisation could show new light for the global warming challenge.</li> </ul> <p><b>What is Carbon capture and utilization?</b></p> <ul style="list-style-type: none"> <li>• Carbon capture and utilization (CCU) is the process of capturing carbon dioxide (CO<sub>2</sub>) to be recycled for further usage.</li> <li>• Carbon capture and utilization may help in significantly reducing greenhouse gas emissions from major industrial emitters.</li> <li>• CCU is different from carbon capture and storage (CCS) because CCU does not aim nor result in permanent geological storage of carbon dioxide. <ul style="list-style-type: none"> <li>◦ Instead, CCU aims to convert the captured carbon dioxide into more valuable substances or products; such as plastics, concrete or biofuel; while retaining the carbon neutrality of the production processes.</li> </ul> </li> </ul> <p><b>About Methane</b></p> <ul style="list-style-type: none"> <li>• Methane is a gas that is found in small quantities in Earth's atmosphere but it is a powerful greenhouse gas.</li> <li>• Methane is 84 times more potent than carbon but it doesn't last as long in the atmosphere before it breaks down.</li> <li>• It is also responsible for creating ground-level ozone, a dangerous air pollutant.</li> </ul>
<b>Solar capacity target</b>	<p><b>Context:</b> According to a report by JMK Research and the Institute for Energy Economics and Financial Analysis (IEEFA), India is likely to miss its 2022 target of installing 100 gigawatts (GW) of solar power capacity, largely due to inadequate uptake of rooftop solar.</p> <ul style="list-style-type: none"> <li>• <a href="#">Solar capacity</a> is a major part of India's commitment to address global warming according to the terms of the Paris Agreement, as well as</li> </ul>

	<p>achieving net zero, or no net carbon emissions, by 2070.</p> <p><b>Key takeaways</b></p> <ul style="list-style-type: none"> <li>As of December 2021, India's cumulative installed solar capacity was 55 GW, with grid-connected utility-scale projects making up 77% of the total and the rest from grid-connected rooftop solar (20%) and mini or micro off-grid projects (3%).</li> <li>With just eight months of 2022 remaining, only about 50% of the 100GW target has been met.</li> <li>Factors impeding rooftop solar installation include: <ul style="list-style-type: none"> <li>pandemic-induced supply chain disruption</li> <li>policy restrictions,</li> <li>regulatory roadblocks;</li> <li>net metering limits;</li> <li>the twin burdens of basic customs duty (BCD) on imported cells and modules and issues with the Approved List of Models and Manufacturers (ALMM);</li> <li>unsigned power supply agreements (PSAs) and banking restrictions;</li> <li>financing issues and delays in or rejection of open access approval grants;</li> <li>The unpredictability of future open access charges.</li> </ul> </li> </ul>
<b>Bengal monitor lizard</b>	<p><b>Context:</b> Four persons were arrested for allegedly raping a Bengal monitor lizard in Sahyadri Tiger Reserve (STR) in Maharashtra.</p> <p><i>Bengal monitor lizard</i></p> <ul style="list-style-type: none"> <li>Distributed widely in the Indian Subcontinent, as well as parts of Southeast Asia and West Asia. Mainly a terrestrial animal, and its length ranges from about 61 to 175 cm (24 to 69 in) from the tip of the snout to the end of the tail.</li> <li>Young monitors may be more arboreal, but adults mainly hunt on the ground, preying mainly on arthropods, but also taking small terrestrial vertebrates, ground birds, eggs and fish.</li> <li>Although large Bengal monitors have few predators apart from humans who hunt them for meat, younger individuals are hunted by many predators.</li> <li>Known as bis-cobra in western India, Goyra in Rajasthan, guishaap or goshaap in Bangladesh and West Bengal, goh in Punjab and Bihar, as ghorpad in Maharashtra and as Thalagoya in Sri Lanka</li> <li>A clan in Maharashtra called Ghorpade claims that the name is derived from a legendary founder Maratha Koli leader <i>Tanaji Malusare</i> who supposedly scaled a fort wall using a monitor lizard tied to a rope.</li> <li>The Bengal monitor's belly skin has traditionally been used in making the drum head for the <b>kanjira</b> (known as <i>Dimadi</i> in Maharashtra), a South Indian percussion instrument.</li> </ul>
<b>Parliamentary Panel for body to address human-animal conflict</b>	<p><b>Context:</b> The Environment Ministry must constitute an advisory body of experts to <b>tackle growing instances of human-animal conflict</b>, according to a report by the Standing Committee on Science, Technology, Environment and Climate Change.</p>

### Background

The report analyses the Wildlife (Protection) Amendment Bill, 2021 tabled in the Lok Sabha in December 2021.

- **The Wild Life (Protection) Act, 1972** provides a **legal framework** for the protection of various species of wild animals and plants, management of their habitat and the regulation and control of trade in wild animals, plants and their parts and products.
- While it has been amended several times, the latest set of proposed amendments by the Environment Ministry were to **make it more compliant** to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), to which **India is a signatory**. CITES regulates international trade in over 38,700 species of wild animals and plants.
- One of the clauses proposed by the Ministry was to have a **Standing Committee of the State Board for Wild Life (SBWL)** to make the functioning of the body “more purposive”.
  - But the report points out that several independent experts and bodies had expressed their concern that such a body would be packed with official members, exercise all powers of the SBWL and take decisions independent of the SBWL itself and “end up **being a rubber stamp** for faster clearances of projects.
  - The report instead suggests that were such a body to be constituted, it should have at least one-third of the non-official members of the SBWL, at least three institutional members and the Director of the Wildlife Institute of India or his/ her nominee.

### Recommendations

- A HAC Advisory Committee to be headed by the Chief Wild Life Warden, who can consult the committee to act appropriately.
- The Committee also urged the government to remove a controversial clause in the Wild Life (Protection) Amendment Bill, 2021 that allows the “transfer and transport” of live elephants while recommending that the government could bring in additional checks to allow sale and purchase by religious institutions.

### Reasons for man-animal conflict:

- Expansion of human settlements into forests – expansion of cities, industrial areas, railway/road infrastructure, tourism etc.
- Allowing livestock to graze in forest areas
- Land-use transformations such as the change from protected forest patches to agricultural and horticultural lands and monoculture plantations are further destroying the habitats of wildlife.
- Unscientific structures and practices of forest management in the country
- Infestation of wildlife habitats by invasive exotic weeds leads to decreased availability of edible grasses for wild herbivores
- Decreased prey base caused by poaching of herbivores has also resulted in carnivores moving out of forests in search of prey and to indulge in cattle lifting.

	<ul style="list-style-type: none"> <li>Due to uncontrolled mining activity, the stressed elephants are angry and enter villages in search of food, killing locals in the process. Every mining proposal in dense forests that are elephant habitats and feeding grounds has been cleared by the department.</li> </ul> <p><b>About CITES</b></p> <ul style="list-style-type: none"> <li>It came into force in July 1975 and currently has 183 signatories</li> <li><b>Aim:</b> Ensure that international trade in specimens of wild animals and plants does not threaten their survival.</li> <li>The CITES Secretariat is administered by UNEP and is located at Geneva, Switzerland.</li> <li>Although CITES is legally binding on the Parties, it does not take the place of national laws. Rather, it provides a framework to be respected by each Party, which has to adopt its own domestic legislation to ensure that CITES is implemented at the national level.</li> <li>The International Consortium on Combating Wildlife Crime (ICWC), a consortium of the CITES Secretariat, INTERPOL, UN Office on Drugs and Crime, World Bank and the World Customs Organization has been established to tackle the illegal wildlife trade.</li> </ul> <p><b>Must Read:</b> <a href="#">No Wild, No Life</a></p>
<b>Earth Day: 22nd April</b>	<ul style="list-style-type: none"> <li><b>Theme:</b> Invest in our planet</li> <li><i>The Beginning:</i> The first-ever Earth Day was celebrated in <b>1970</b> and is attributed to <b>Gaylord Nelson</b>, a U.S. politician who served as a Governor and a Senator during his career.</li> </ul>
<b>Heatwaves linked to man-made climate change</b>	<p><b>Context:</b> The three millimetre rise in sea level could drive a greater number of extreme climate events such as floods that could devastate coastal India, warns scientist. However, nature-based solutions such as <b>increasing forest area</b> could be done as part of India's climate adaptation program.</p> <ul style="list-style-type: none"> <li>India is gripped in the throes of a long spell of heatwaves and there is compelling evidence that a significant portion of it is due to human-induced climate change.</li> </ul> <p><b>Health Impacts of Heat Waves</b></p> <ul style="list-style-type: none"> <li>The mortality rates for extreme weather events are on a decline but rising significantly for heatwaves and lightning events. Heatwaves have now become the <b>second most disastrous event</b> (after lightning) linked to mortality.</li> <li>Heatwaves affect work productivity, by reducing performance and increasing heat-related illness. A decline of 30-40% in the work performance is projected over India by the end of the century due to the elevated heat stress levels</li> </ul> <p><b>What is causing this?</b></p> <ul style="list-style-type: none"> <li>Due to an anti-cyclone over the Arabian Sea, winds are moving in the clockwise direction creating an area of subsidence where hot, westerly winds are blowing.</li> <li>There are clear skies so there is abundant radiation. This has led to this unusually intense heat wave spell over large parts of the country. This dry, hot weather is likely to impact both quality and yield of wheat in many parts of north India</li> </ul>



- During an anti-cyclone, air pressure is high on the surface, causing the air above it to come down. This air warms up as it comes down on account of high pressure. The outward hot winds caused by this are ranging as far as Odisha and West Bengal.
- But early next week, the western disturbance will likely put an end to this anti-cyclone, pushing moisture-laden winds in from both the Arabian Sea and the Bay of Bengal, a phenomenon that will likely reduce temperatures through most of the plains.
- In some regions experiencing heatwaves, it is not just about the high temperatures but the accompanying rise in humidity too that matters. Sustained heatwaves can be dangerous, especially when combined with high levels of humidity. If the air has high levels of humidity along with the heat, the body stops sweating and becomes unable to regulate the internal temperature. This can result in a heat stroke leading to multiple organ failure and deaths

#### **First Aid for heat stroke:**

While waiting for the paramedics to arrive, initiate first aid with the aim to lower the body temperature.

- Move the person to an air-conditioned environment or at least a cool, shady area and remove any unnecessary clothing.
- Fan air over the patient while wetting his or her skin with water from a sponge or garden hose.
- Apply ice packs to the patient's armpits, groin, neck, and back because these areas are rich with blood vessels close to the skin, cooling them may reduce body temperature.
- Do not use ice for older patients, young children, patients with chronic illness, or anyone whose heat stroke occurred without vigorous exercise.

#### **Way Forward**

Increased exposure to heatwaves needs a policy response, nationally and globally. [Long term measures](#) should be taken to address the issue in the wake of global warming and climate change:

- Afforestation drives to increase green cover.
- A further reduction in the share of coal in the energy mix through sustained support for renewable energy, particularly solar photovoltaic, must form the cornerstone of national policy
- It is vital that India gets more ambitious about cutting back on carbon emissions, even as
- This must be matched by a shift away from use of fossil fuels for transport, and the induction of more electric vehicles.

#### **Must Read:**

- [New Study on Climate Change](#)
- [IPCC report on Mitigation of Climate Change](#)

### **Khajuraho**

- **Nagara Style Temple Architecture:** Vishwanatha temple & Lakshman Temple
- **Kandariya Mahadeva Temple:** Built by Chandela Rulers, King Ganda (Shiva in the form of linga is the chief deity); Under the UNESCO List of World Heritage Sites
- **Lakshamana Temple:**
  - The temples at Khajuraho are all made of **sandstone**.
  - They were patronised by the **Chandella** dynasty.
  - The Lakshamana temple represents the full-fledged, developed style of temple architecture during the time of the Chandellas.
  - Its construction was completed by 954, the year as per the inscription found at the base of the temple, by Yashovarman, the seventh ruler of the Chandella dynasty.
  - The temple plan is of a **panchayana type**.
  - The temple is constructed on a heavy plinth. It consists of an ardhmandapa (porch), mandapa (porch), the maha mandapa (greater hall) and the garbhagriha with vimana.
  - Many **erotic sculptures** are carved on the plinth wall. Some erotic sculptures are carved on the actual wall of the temple.
    - Khajuraho complex of temples is an excellent example of sculptures representing **women in different roles**. For example, on **Kandariya Laxmana temple** we can see a women with a purse in hand purchasing stuff from market showcases economic independence and her ability to make choice.
    - Erotic sculptures, where we can see **women are supremely confident** when it comes to exploring their sexuality. Practice of polyandry is evident on temple walls. (part of the Hindu tradition of treating kama as an essential and proper part of human life)
  - An image of Chaturmukha Vishnu is in the garbhagriha.
  - There are four shrines in each corner of the temple. There are images of Vishnu in three shrines and Surya in one, which can be identified by the central image on the lintel of the shrine-doors.

<b>Babu Jagjivan Ram</b>	<p>Babu Jagjivan Ram, who was affectionately known as Babuji, was born on the 5th of April, 1908. He was much more than a politician where he dedicated his life fighting for the freedom of the country and bringing the voices of the oppressed communities of the country.</p> <p><b>Crusader of Social Justice</b></p> <ul style="list-style-type: none"><li>• Being a Dalit leader himself, his contributions as a social reformer were immense apart from his other influences.</li><li>• He was a member of the First Cabinet of Jawaharlal Nehru's interim Government where he was the youngest Minister and a member of the Constituent Assembly of India.</li><li>• Babu Jagjivan Ram was among the few who gave a very strong emphasis on the importance of the principles of social justice that was cherished in the Indian Constitution.</li><li>• Babu Jagjivan Ram as a crusader of social justice was instrumental in the establishment of the All Indian Depressed Classes League in the year 1935. This organization primarily sought to provide welfare and equality for the untouchables in the caste ridden societies.</li></ul> <p><b>Political Career</b></p> <ul style="list-style-type: none"><li>• He is also well known for the mass organization of movements that were dedicated for the <b>welfare of the rural labour</b> after he became a member of the Legislative Assembly of Bihar in the year 1937.</li><li>• Babu Jagjivan Ram went on to be a prominent member of the <b>Indian National Congress</b> where he worked whole heartedly for the party for over forty years in a wide range of portfolios after which he also became the Deputy Prime Minister of India from 1977 to 1979.</li><li>• He was the Defence Minister of India during the Indo-Pak war of 1971, which resulted in the creation of Bangladesh.</li><li>• His contribution to the Green Revolution in India and modernising Indian agriculture, during his two tenures as Union Agriculture Minister are still remembered, especially during 1974 drought when he was asked to hold the additional portfolio to tide over the food crisis.</li><li>• Babu Jagjivan Ram went to convince Mahatma Gandhi to join Constituent Assembly as his guidance was required. This was when Gandhi ji gave him what is popularly known as Gandhi ji's Talisman.</li></ul>
<b>Chandra Shekhar Azad</b>	<p>Chandrashekhar Azad was a great Indian freedom fighter. His fierce patriotism and courage inspired others of his generation to enter freedom struggle. He was the mentor of Bhagat Singh, another great freedom fighter, and along with Bhagat Singh he is considered as one of the greatest revolutionaries that India has produced.</p> <p><b>As a revolutionary</b></p> <ul style="list-style-type: none"><li>• <b>'Azad':</b> In December 1921, when Mohandas Karamchand Gandhi launched the Non-Cooperation Movement, Chandra Shekhar, then a 15-year-old student, joined. As a result, he was arrested. On being presented before a magistrate, he gave his name as "Azad" (The Free),</li></ul>

	<p>his father's name as "Swatantrata" (Independence) and his residence as "Jail". From that day he came to be known as Chandra Shekhar Azad among the people.</p> <ul style="list-style-type: none"> <li>• <b>Became famous for:</b> Involved in the Kakori Train Robbery of 1925, in the attempt to blow up the Viceroy of India's train in 1926, and at last the shooting of J. P. Saunders at Lahore in 1928 to avenge the killing of Lala Lajpat Rai. The Colt pistol of Chandra Shekhar Azad is displayed at the Prayagraj Museum</li> <li>• <b>What inspired him:</b> <a href="#">The Jallianwala Bagh tragedy</a> which took place in 1919 was when he decided to join the <a href="#">Non-Cooperation movement</a> led by Mahatma Gandhi in 1920.</li> <li>• <b>Formed:</b> He was the chief strategist of the Hindustan Socialist Republican Association (HSRA).</li> <li>• <b>He inspired:</b> Bhagat Singh; Chandrashekhar Azad was attracted towards more aggressive and revolutionary ideals. He committed himself to complete independence by any means. Azad and his compatriots would target British officials known for their oppressive actions against ordinary people and freedom fighters.</li> </ul> <p><b>A terror for British police:</b> He was on their hit list and the British police badly wanted to capture him dead or alive.</p> <ul style="list-style-type: none"> <li>• On February 27, 1931 Azad met two of his comrades at the Alfred Park Allahabad. He was betrayed by an informer who had informed the British police.</li> <li>• The police surrounded the park and ordered Azad to surrender.</li> <li>• Azad fought alone valiantly and killed three policemen.</li> <li>• But finding himself surrounded and seeing no route for escape, he shot himself. Thus he kept his pledge of not being caught alive.</li> </ul>
<p><b>400th Parkash Purab of Sri Guru Tegh Bahadur Ji (1621–1675)</b></p>	<p><i>The period of history in India in the last four centuries cannot be imagined without the influence of Guru Tegh Bahadur, the ninth Sikh Guru.</i></p> <ul style="list-style-type: none"> <li>• Guru Tegh Bahadur was the ninth of ten Gurus of the Sikh religion.</li> <li>• Born at Amritsar in 1621, was the youngest son of Guru Hargobind.</li> <li>• One hundred and fifteen of his hymns are in Guru Granth Sahib.</li> <li>• There are several accounts explaining the motive behind the assassination of Guru Tegh Bahadur on Aurangzeb's orders. He stood up for the rights of Kashmiri Pandits who approached him against religious persecution by Aurangzeb.</li> <li>• He was publicly killed in 1675 on the orders of Mughal emperor Aurangzeb in Delhi for himself refusing Mughal rulers and defying them.</li> <li>• Gurudwara Sis Ganj Sahib and Gurdwara Rakab Ganj Sahib in Delhi mark the places of execution and cremation of his body.</li> </ul> <p><b>Impact of his martyrdom:</b> The execution hardened the resolve of Sikhs against religious oppression and persecution.</p> <ul style="list-style-type: none"> <li>• His martyrdom helped all Sikh Panths consolidate to make the protection of human rights central to its Sikh identity.</li> <li>• Inspired by him, his nine-year-old son, Guru Gobind Singh Ji, eventually organized the Sikh group into a distinct, formal, symbol-patterned community came to be known as Khalsa (Martial) identity.</li> </ul>

<p><b>Twitter adopts 'poison pill'</b></p>	<p><b>Context:</b> Twitter Inc. on April 15 adopted a <b>limited-duration shareholder rights plan</b> to protect itself from billionaire entrepreneur Elon Musk's \$43 billion cash takeover offer.</p> <ul style="list-style-type: none"> <li>Musk has offered to buy the company outright for more than \$43 billion, saying it "needs to be transformed as a private company" in order to build trust with its users and do better at serving what he calls the "societal imperative" of free speech.</li> </ul> <p><b>'Poison pill' Strategy</b></p> <ul style="list-style-type: none"> <li><b>Under the 'poison pill' strategy</b> the rights will become exercisable if anyone acquires ownership of 15% or more of Twitter's outstanding common stock in a transaction not approved by the Board.</li> <li>The move would allow existing Twitter shareholders — except for Musk — to buy additional shares at a discount, thereby <b>diluting Musk's stake</b> in the company and making it harder for him to corral a majority of shareholder votes in favor of the acquisition.</li> <li>Twitter's plan would take effect if Musk's roughly 9% stake grows to 15% or more.</li> <li>This plan would reduce the likelihood that any one person can gain control of the company without either paying shareholders a premium or giving the board more time to evaluate an offer. Such defenses, formally called <b>shareholder rights plans</b>, are used to <b>prevent the hostile takeover of a corporation</b> by making any acquisition prohibitively expensive for the bidder.</li> </ul> <p>Musk could try to fight the measure in court, but "no court has overturned a poison pill in the last 30 years."</p>
<p><b>Bernardinelli-Bernstein comet</b></p>	<p><b>Context:</b> National Aeronautics and Space Administration's (NASA) Hubble Space Telescope has confirmed that the huge <b>Bernardinelli-Bernstein comet</b> is indeed the <b>largest icy comet nucleus</b> ever seen by astronomers.</p> <ul style="list-style-type: none"> <li>The icy nucleus stretches about 80 miles (129 kilometers) across.</li> <li>While frigid, this temperature is warm enough to allow carbon monoxide to sublime (a process during which solid material becomes gas) off the comet's rocky surface, creating a "coma," an envelope of dust and gas that surrounds a comet's solid center.</li> <li>This comet, being so far from Earth and originating in the farthest-flung reaches of our solar system, is thought to travel on a 3-million-year-long elliptical orbit around the sun. Scientists think that it might travel about half a light-year away from the sun in the farthest parts of its orbit.</li> </ul>
<p><b>Virtual Network Centre on Quantum Computing</b></p>	<p><b>Context:</b> India and Finland will establish an Indo-Finnish Virtual Network Centre on Quantum Computing</p> <ul style="list-style-type: none"> <li>Will attempt to stimulate innovative research and development projects to address needs of both nations.</li> <li>The Indian side has identified three premier institutes, IIT-Madras, IISER-Pune and C-DAC-Pune for the same.</li> </ul> <p>USA and China are taking lead in quantum computing. The need to invest in</p>



quantum computing researches is realized by India which has unveiled a programme called Quantum-Enabled Science & Technology (QuEST).

#### **Quantum Computing**

- A rapidly-emerging technology that harnesses the laws of quantum mechanics to solve problems too complex for classical computers.
- Quantum computing is a new type of computing that relies on quantum physics unlike traditional computing which is based on binary processing of information.
- It uses 'qubit' built by the way of some objects behave at the subatomic level or at extremely cold temperature.
- Exploiting the principles of quantum mechanics, quantum computing help computers to easily tackle computational problems that may be tough for the classical computer as the size of the numbers and number of inputs involved grows bigger. It uses the fundamental laws of quantum physics to perform an incomprehensible number of calculations simultaneously.

#### **Potential applications of Quantum computing:**

##### **1. Healthcare**

- **Research:** Classical computers are limited in terms of the size and complexity of molecules they can simulate and compare (an essential process in early drug development). If we have an input of size  $N$ ,  $N$  being the number of atoms in the researched molecules, the number of possible interactions between these atoms is exponential (each atom can interact with all the others). Quantum computers will allow much larger molecules to be simulated. At the same time, researchers will be able to model and simulate interactions between drugs and all 20,000+ proteins encoded in the human genome, leading to greater advancements in pharmacology.
- **Diagnostics:** Quantum technologies could be used to provide faster, more accurate diagnostics with a variety of applications. Boosting AI capabilities will improve machine learning – something that is already being used to aid pattern recognition. High-resolution MRI machines will provide greater levels of detail and also aid clinicians with screening for diseases.
- **Treatment:** Targeted treatments, such as radiotherapy, depend upon the ability to rapidly model and simulate complex scenarios to deliver the optimal treatment. Quantum computers would enable therapists to run more simulations in less time, helping to minimise radiation damage to healthy tissue.

##### **2. Finance**

- **Automated, high-frequency trading:** One potential application for quantum technologies is algorithmic trading – the use of complex algorithms to automatically trigger share dealings based on a wide variety of market variables. The advantages, especially for high-volume transactions, are significant.
- **Fraud detection:** Like diagnostics in healthcare, fraud detection is reliant upon pattern recognition. Quantum computers could deliver a significant improvement in machine learning capabilities; dramatically

reducing the time taken to train a neural network and improving the detection rate.

**3. Marketing**

- Quantum computers will have the ability to aggregate and analyse huge volumes of consumer data, from a wide variety of sources.
- Big data analytics will allow commerce and government to precisely target individual consumers, or voters, with communications tailored to their preferences; helping to influence consumer spending and the outcome of elections.

**4. Meteorology**

- With so many variables to consider, accurate weather forecasts are difficult to produce. Machine learning using quantum computers will result in improved pattern recognition, making it easier to predict extreme weather events and potentially saving thousands of lives a year.
- Climatologists will also be able to generate and analyse more detailed climate models; proving greater insight into climate change and how we can mitigate its negative impact.

**5. Logistics**

- Improved data analysis and modelling will enable a wide range of industries to optimise workflows associated with transport, logistics and supply-chain management.
- The calculation and recalculation of optimal routes could impact on applications as diverse as traffic management, fleet operations, air traffic control, freight and distribution.

**6. Disaster Management**

- Tsunamis, drought, earthquakes and floods may become more predictable with quantum applications.
- The collection of data regarding climate change can be streamlined in a better way through quantum technology. This in turn will have a profound impact on agriculture, food technology chains and the limiting of farmland wastage.

**7. Secure Communication**

- China recently demonstrated secure quantum communication links between terrestrial stations and satellites.
- This area is significant to satellites, military and cyber security among others as it promises unimaginably fast computing and safe, unhackable satellite communication to its users.

**Economic Co-operation and Trade Agreement (ECTA)**

**Context:** India and Australia signed an Economic Co-operation and Trade Agreement (ECTA) recently.

- Both countries have aimed to double bilateral trade to \$50 billion in five years and ease movement of people, goods and services across borders.
- This is also the first such pact signed by India with a developed country in a decade.

**Key takeaways**

- The deal will facilitate work visas for two to four years for Indian students in Australia on a 'reciprocal basis'.
- It will allow Indian chefs and yoga professionals to work there as well.
- The agreement will facilitate zero duty access on over 96% of Indian exports, including several labour-intensive industries.
- India will, in turn, offer preferential access to Australia on over 70% of its tariff lines on goods imports, including 'lines of export interest to Australia which are primarily raw materials and intermediaries such as coal, mineral ores and wines, etc.
- The agreement with Australia is expected to create 10 lakh additional jobs in the country over the next five years.
- It will also increase the resilience of supply chains, and also contribute to the stability of the Indo-Pacific region.

**West Africa facing its worst food crisis**

**Context:** Nearly a dozen international organisations said in a report that West Africa is facing its worst food crisis in a decade due to increasing conflicts, droughts, floods and the war in Ukraine.

**Key highlights of the report**

- The number of West Africans needing emergency food assistance has nearly quadrupled from 7 million in 2015 to 27 million this year in nations including Burkina Faso, Niger, Chad, Mali and Nigeria, where thousands have also been displaced because of rising Islamic extremist violence.
- The number could jump to 38 million by June if action isn't taken soon to help people in the Sahel, the sweeping region south of the Sahara Desert.



## Loss of the 'Moskva' & Black Sea

**Context:** The sinking of the warship Moskva, the 600-foot, 12,500-tonne flagship of the Russian Black Sea Fleet (whether due to a Ukrainian missile strike or, as Russia claims, a fire on board) — is not just a huge symbolic defeat for Russia as it was named after its capital Moscow, but also a serious damage to its dominance in the Black Sea.

- The biggest Russian warship to be sunk in action since World War II.
- On the other hand, it lifts Ukrainian hopes, demonstrating the defenders' homegrown technological capacity, and exposing a weakness in the Russian navy's anti-missile defences.

### About the Black Sea

- The Black Sea, also known as the **Euxine Sea**, is one of the major water bodies and a famous **inland sea** of the world.
- It is a marginal sea of the Atlantic Ocean, located **between Eastern Europe and Western Asia**.
- The Black Sea is also connected to the Sea of Azov by the **Strait of Kerch**.
- It is flanked by Turkey in the south, Crimea in the north, Georgia and Russia in the east and Romania and Bulgaria in the west.

### Politics around Black Sea

- A busy waterway, Greece controlled it in the 9th century BC and by 500 BC Greek communities took its control. It helped them increase their trade.
- In 1479, the Black Sea came under the control of the Ottoman Empire until it was taken over by the Russian Navy in 1783.
- The [1853-1856 Crimean War](#) saw immense bloodshed to take control of this region. One of Russia's main reasons for joining World War I was to take over control of the Black Sea.

### Significance of Black Sea to Russia

- Not only is the Black Sea an entry point for Russia into the Mediterranean and a buffer between NATO and itself, it also serves as an economic gateway for the country to major markets in southern Europe, as reported by the Deccan Herald.
- Moscow sees the Black Sea as vital to its geo-economic strategy; helps in supplying Russia's oil and gas to the west.
- Russia depends on the Black Sea for both for military operations outside its immediate neighbourhood and for exports of Russia's main commodity (hydrocarbons).
- With the breaking away of the USSR, ideally NATO should have been dissolved. But this did not happen. In fact, despite multiple assurances by the US and NATO, it has expanded four times since 1991 and almost reached the doorstep of Russia.
- The Kremlin sees the Mediterranean as a largely NATO-dominated region. So, by increasing its presence in the Black Sea, Russia hopes to spot opportunities to make political, economic, and military inroads with key regional states in the region.
- A domination of the Black Sea and Sea would give Russia a major advantage in the Crimea-Odessa-Mariupol region now that Sevastopol is already under its command.



Pic source: [Wikipedia](https://en.wikipedia.org/wiki/Black_Sea)

### Yemen's Houthi rebels agree to stop using child soldiers

**Context:** Yemen's Houthi rebels have agreed to rid their ranks of child soldiers, who have fought by the thousands during the country's seven years of civil war.

- The Houthis signed an "action plan" to end and prevent recruiting or using children in armed conflict, killing or maiming children and attacking schools and hospitals.
- The rebels have committed to identifying children in their ranks and releasing them within six months.
- More than 10,200 children have been killed or maimed in the war.

The recruitment and use of children as soldiers **is one of the six U.N.-defined violations** affecting children in times of war. The list also includes: the killing and maiming of children, sexual violence against children, child abductions, attacks against schools or hospitals and the denial of humanitarian access for children.

#### What led to this?

- Yemen's civil war erupted in 2014 when the Iran-backed Houthis seized Sanaa and forced the government into exile. A Saudi-led coalition, including the United Arab Emirates, entered the war in early 2015 to try to restore the government to power.
- War monitors estimate the conflict has killed over 14,500 civilians and 150,000 people when combatants are included. The fighting also created one of the world's worst humanitarian crises.

The warring sides agreed earlier this month to the **first nationwide truce** in six years.

#### Who are Houthis?

- The Houthis are Zaydi Shiites, or Zaydiyyah. Shiite Muslims are the minority community in the Islamic world and Zaydis are a minority of Shiites, significantly different in doctrine and beliefs from the Shiites who dominate in Iran, Iraq, and elsewhere (often called Twelvers for their belief in twelve Imams).
- The American invasion of Iraq in 2003 deeply radicalized the Houthi movement. The Houthis adopted the slogan: "God is great, death to the U.S., death to Israel, curse the Jews, and victory for Islam," in the wake of the U.S.-led invasion of Iraq.



#### Yemen:

- Yemen is at the southern end of the Arabian Peninsula and borders Saudi Arabia and Oman.
- It has been in existence as a state in its current form since the early 1990s.
- Yemen is only 30km from Djibouti in Africa, which sits across the Bab al Mandab straits, which means Gate of Tears.
- Up to 18 million years ago, Yemen and the Horn of Africa were a single landmass. However, the Gulf of Aden's rifting separated the Arabian Peninsula and the Horn region.
- Sana'a is the largest city in Yemen. Constitutionally, Sana'a is the capital of Yemen.
- Sana'a is a UNESCO World Heritage Site. It has a distinctive architectural character, most notably expressed in its multi-storey buildings decorated with geometric patterns.
- In the aftermath of the Houthi occupation, the capital moved to Aden – the former capital of South Yemen. Aden is located next to the Sarawat Mountains of Jabal An-Nabi Shu'ayb and Jabal Tiyal, considered to be the highest mountains in the country and amongst the highest in the region.



#### China, Solomon Islands sign landmark security pact

**Context:** China has announced the signing of a security pact with the Solomon Islands, despite the US and Australia raising concerns over the landmark deal that could result in China setting up a military base in the South Pacific country, close to Australia.

- According to the agreement, the two countries will conduct cooperation in such areas as maintenance of social order, protection of the safety of people's lives and property, humanitarian assistance and natural disaster response, in an effort to help the Solomon Islands strengthen capacity building in safeguarding its own security.
- The news comes amid concerns from Australia, the US and New Zealand that the agreement would include the **setting up of a military base**, similar to the deal that China struck with the African nation Djibouti in

2017. But the Pacific island nation has clarified that there was no such clause in the deal.

#### **What are the concerns?**

- China's increased military activity and influence in the Indo-Pacific could destabilize the region as the island could also be used as a stopover for China's troops for tactical replenishments.
- A major shift in the geopolitics since it gives China direct access to the South Pacific, including Australia and New Zealand.
  - The Pacific islands, in the post-World War II scenario, were exclusively under the spheres of influence of the Western powers, in particular the U.S., U.K., France and the regional heavyweights, Australia and New Zealand.
  - All of them have territorial possessions in the region, with the three nuclear powers among them having used the region as a nuclear weapons testing ground.
  - The smaller island nations of the region are heavily dependent on them, especially Australia as it is a resident power.
  - This established power structure in the region is being increasingly challenged by China through the steady displacement of Taiwan and the cultivation of economic and political clout.
  - Its proposed deal with the Solomon Islands has added a security dimension to its fast-growing profile in the region.
- Solomon Islands are strategically located for China to insert itself between America's military bases in the Pacific islands and Australia. This is especially significant in the current scenario, given the emergence of the [AUKUS](#) (Australia, the U.K. and the U.S.) which seeks to elevate Australia's strategic capabilities vis-à-vis China through Anglo-American cooperation.

#### **Solomon Islands**

- Solomon Islands is a sovereign country consisting of six major islands and over 900 smaller islands in Oceania, to the east of Papua New Guinea and northwest of Vanuatu.
- It is located in the southwestern Pacific Ocean.
- Its capital, Honiara, is located on the largest island, Guadalcanal.
- Have significant reserves of timber and mineral resources, along with fisheries.



<p><b>Raisina Dialogue 2022</b></p>	<p>The Raisina Dialogue is <b>India's premier conference</b> on geopolitics and geoeconomics committed to addressing the most challenging issues facing the global community.</p> <ul style="list-style-type: none"> <li>• Every year, leaders in politics, business, media, and civil society converge in New Delhi to discuss the state of the world and explore opportunities for cooperation on a wide range of contemporary matters.</li> <li>• The Dialogue is structured as a multi-stakeholder, cross-sectoral discussion, involving heads of state, cabinet ministers and local government officials, who are joined by thought leaders from the private sector, media and academia.</li> <li>• <b>Theme:</b> Terranova: Impassioned, Impatient, and Imperilled</li> <li>• <b>Jointly organised by:</b> The Ministry of External Affairs and the Observer Research Foundation</li> <li>• Held every year, designed on the lines of the <b>Shangri-La Dialogue of Singapore</b>.</li> <li>• First held in <b>2016</b> and since its inception, has emerged as India's flagship conference on geoeconomics and geopolitics</li> <li>• The name Raisina Dialogue comes from <b>Raisina Hill</b>. It is an elevation in New Delhi, the seat of the Government of India and the Presidential Palace of India, Rashtrapati Bhavan.</li> </ul> <p><b>The Raisina Dialogue 2022 will be modelled along six thematic pillars:</b></p> <ol style="list-style-type: none"> <li>1. Rethinking Democracy: Trade, Tech and Ideology</li> <li>2. End of Multilateralism: A Networked Global Order?</li> <li>3. Water Caucuses: Turbulent Tides in the Indo-Pacific</li> <li>4. Communities Inc: First Responders to Health, Development, &amp; Planet</li> <li>5. Achieving Green Transitions: Common Imperative, Diverging Realities</li> <li>6. Samson vs Goliath: The Persistent and Relentless Tech Wars</li> </ol>
<p><b>70 years of establishment of diplomatic relations between India and Japan</b></p>	<p><b>Context:</b> Linked by universal values such as freedom, democracy, human rights, and the rule of law, which have been shared through a long history of exchange, Japan and India are special strategic and global partners, sharing strategic interests. In this milestone year i.e., 2022 (28 April 1952), it marks the 70th anniversary of the establishment of diplomatic relations between Japan and India</p> <p><b>Background</b></p> <ul style="list-style-type: none"> <li>• Formal relations between Japan and India began in 1952.</li> <li>• After the Second World War, instead of signing the multilateral San Francisco Peace Treaty, India opted for concluding a bilateral peace treaty with Japan, considering that honour and equality should be ensured for Japan to rejoin the international community. This is the cornerstone of our long-standing friendship.</li> <li>• But even before the establishment of diplomatic relations, the goodwill between the people of the two countries was deeply rooted through business, academic and cultural exchanges.</li> <li>• In 1951, when India hosted the first Asian Games in New Delhi, it invited Japanese athletes. This was one of the first occasions where the Japanese flag was hoisted after WWII. This experience soothed the</li> </ul>

minds of Japanese people who were struggling to rebuild their country.

- After 70 years of multi-layered exchanges, the relationship between our two countries grew into a “Special Strategic and Global Partnership”.

#### **Relations between the two countries**

##### ***Strategic Components***

- Convergence on free, open, and inclusive Indo-Pacific,
- Progress in defense and security and in the regional context.
- India and Japan signed a **Reciprocal Provision of Supplies and Services Agreement (RPSS)**.
- The inaugural **2+2 ministerial meeting** was held in November 2019.
- **Act East Forum:** A decision was taken in the 2017 Summit to establish the India-Japan Act East Forum. The objective is to coordinate developmental projects in North-East India in areas of connectivity, forest management, disaster risk reduction and capacity building.
- Several projects including upgradation of highways in Meghalaya, Tripura and Mizoram are underway. The PM had last year laid the foundation stone of a 20 km-long bridge over the Brahmaputra River between Assam and Meghalaya.
- **Supply Chain Resilience Initiative (SCRI)** – The Trade and Economy Ministers of India, Japan and Australia launched the (SCRI) on 27 April 2021. The initiative seeks to enhance the resilience of supply chains in the Indo-Pacific Region and to develop dependable sources of supply and to attract investment. As initial projects (i) sharing of best practices on supply chain resilience; and (ii) holding of a matching event have been completed.

##### ***Economic Components***

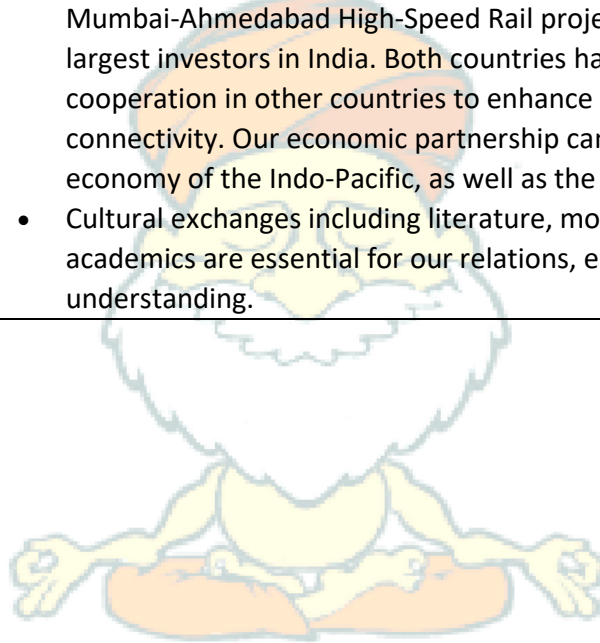
The two countries have achieved the target of 3.5 trillion Japanese Yen in public and private investments in India.

- Today, there are 1,455 Japanese companies in India. Eleven Japan Industrial Townships (JIT) have been established, with Neemrana in Rajasthan and Sri City in Andhra Pradesh having the maximum number of companies.
- Japan is the 5th largest source of FDI; largest supplier of ODA (development partner of India)
- Several infrastructure projects are underway through Japanese assistance including Mumbai-Ahmedabad High Speed Rail, Dedicated Freight Corridor, metro projects, DMIC etc
- Last year, PM Modi inaugurated the Varanasi Convention Centre (Rudraksha), while the then PM Yoshihide Suga sent a video message.
- The two sides had signed a Digital Partnership in October 2018. Collaboration in startups has emerged as a vibrant aspect under this Partnership. Till date Indian startups have raised more than USD 10 billion from Japanese VCs. India and Japan have also launched a private sector driven fund-of-funds to invest in technology startups in India which has raised USD 100 million so far.
- Both countries also have cooperation in the field of ICT, in areas such as 5G, under-sea cables, telecom, and network security. A workshop on 5G was also held.

- Progress has also been made in the area of skill development. The total number of Japan-India Institutes of Manufacturing (JIM) now stands at 19 (it was 8 in 2018). These institutes are established by Japanese companies based in India for training skilled workers. Japanese companies have also set up 7 Japanese Endowed Courses (JEC) at various colleges.
- 220 Indian youth are placed in Japan as interns under Technical Intern Training Programme (TITP). India had also signed a Specified Skilled Workers Agreement. The Japanese side has started examinations for nursing care under this programme.

**The enormous possibilities that exists**

- Plethora of fields to cooperate in, security issues including cyber security, outer space and economic security.
- Our economic relations can be further augmented: For long, Japan has been the largest ODA (Official Development Assistance) donor to India. One of the most recent and ongoing examples of our collaboration is the Mumbai-Ahmedabad High-Speed Rail project. Japan is also one of the largest investors in India. Both countries have also promoted economic cooperation in other countries to enhance social infrastructure and connectivity. Our economic partnership can further strengthen the economy of the Indo-Pacific, as well as the world economy.
- Cultural exchanges including literature, movies, music, sports and academics are essential for our relations, enabling a better understanding.





<p><b>New genus of parasitoid wasp</b></p>	<p><b>Context:</b> A new genus of Braconid wasp has been named 'Atree', after the Ashoka Trust for Research in Ecology and the Environment (ATREE), a leading research institution and environmental think tank based in Bengaluru.</p> <ul style="list-style-type: none"> <li>• This is said to be the first time in India that an institute has an eponymous insect genus.</li> <li>• The development comes with the discovery of a new species of wasp, Atree rajathae and two other already known species.</li> <li>• The newly described species is a parasitoid wasp.</li> <li>• An ATREE statement explained that parasitoids are the most important natural enemies of other insects, and humans exploit this behaviour for the biological control of crop pests.</li> </ul>
<p><b>MANPADS</b></p>	<p><b>Context:</b> The Indian Army which has long been looking for new man portable air defence systems (MANPADS), has inducted a small number of Igla-S systems recently procured from Russia under emergency procurement</p> <p><b>What are MANPADS?</b></p> <ul style="list-style-type: none"> <li>• MANPADS are short-range, lightweight and portable surface-to-air missiles.</li> <li>• They can be fired by individuals or small groups to destroy aircraft or helicopters.</li> <li>• They help shield troops from aerial attacks and are most effective in targeting low-flying aircrafts.</li> <li>• MANPADS can be shoulder-fired, launched from atop a ground-vehicle, fired from a tripod or stand, and from a helicopter or boat.</li> <li>• Weighing anywhere between 10 to 20 kilograms and not being longer than 1.8 metres, they are fairly lightweight as compared to other elaborate weapon systems, making them easy to operate by individual soldiers.</li> <li>• Operating MANPADS requires substantially less training.</li> <li>• Most MANPADS have passive or 'fire and forget' guidance systems, meaning the operator is not required to guide the missile to its target, enabling them to run and relocate immediately after firing</li> </ul>
<p><b>DIKSHA Website</b></p>	<p>DIKSHA is the platform for providing quality e-content for school education in States/UTs and QR coded Energized Textbooks for all grades (one nation, one digital platform).</p> <ul style="list-style-type: none"> <li>• DIKSHA complies with World Wide Web Consortium (W3C) Web Content Accessibility Guidelines (WCAG) 2.0 level AA.</li> <li>• This enables people with visual impairments to access the website using assistive technologies, such as screen readers.</li> </ul> <p>Special e-content for visually and hearing impaired developed on <b>Digitally Accessible Information System (DAISY)</b> and in sign language on NIOS website/YouTube.</p> <ul style="list-style-type: none"> <li>• DAISY is the emerging world standard for digital talking books for people who are visually impaired or have a print disability.</li> <li>• DAISY books have "embedded navigation" that enables readers to</li> </ul>

	<p>instantly jump to any part of a work- the same way a sighted person can turn to any page.</p> <ul style="list-style-type: none"> <li>With DAISY, the text is delineated with tags, such as part, chapter, page, paragraph, etc., and synced with the audio files. Readers can navigate through this hierarchy using the tab key or other player control.</li> </ul>
<b>Nai Roshni Scheme</b>	<ul style="list-style-type: none"> <li>Aims to empower and enhance confidence in women by providing knowledge, tools and techniques for Leadership Development of Women.</li> <li>It is a six-day non-residential/five-day residential training programme conducted by selected Programme Implementing Agencies for the women belonging to minority community in the age group of 18 to 65 years.</li> <li>The training programme cover areas related to programmes for women, health and hygiene, legal rights of women, financial literacy, digital literacy, Swachh Bharat, Life Skills, and advocacy for social and behavioural changes, etc.</li> <li>So far, around 4.35 Lakh women have been trained under the scheme.</li> </ul>
<b>Naya Savera – Free Coaching and Allied Scheme</b>	<ul style="list-style-type: none"> <li>Aims to provide free coaching to students/candidates belonging to six notified minority communities i.e. Sikhs, Jains, Muslims, Christians, Buddhists and Parsis for technical/professional courses and competitive examination for recruitment to Group 'A', 'B', &amp; 'C' services and other equivalent posts under the Central and State Governments.</li> <li>The scheme is implemented across the country through empaneled project implementing agencies (PIAs).</li> <li>So far, more than 1.19 lakh minority students / candidates have benefitted from Naya Savera.</li> </ul> <p><b>Nai Udaan Scheme</b></p> <ul style="list-style-type: none"> <li>Support is provided to minority candidates clearing Preliminary examination conducted by Union Public Service Commission (UPSC), State Public Service Commission (PSC), Staff Selection Commission (SSC) etc.</li> <li>So far financial support has been provided to around 9800 minority candidates.</li> </ul> <p><b>Nai Manzil Scheme</b></p> <ul style="list-style-type: none"> <li>Aims to benefit the minority youth (both men &amp; women) belonging to six notified minority communities of 17-35 years of age, who do not have formal school leaving certificate, i.e., those in the category of school – dropouts or educated in community education institutions like Madrasas.</li> <li>30% of the beneficiary seats are earmarked for girl/women candidates and 5% of the beneficiary seats for persons with disability belonging to the minority community under the scheme.</li> <li>The scheme provides a combination of formal education (Class VIII or X) and skills to enable beneficiaries seek better employment and livelihood.</li> <li>A total of 93485 beneficiaries have been trained so far under the scheme all over</li> </ul>

	India.
<b>Concept of Familial Forestry</b>	<p>Familial Forestry means caring for the tree as a family member so that the tree becomes a part of the family's consciousness.</p> <p><b>Land for Life</b></p> <ul style="list-style-type: none"> <li>It is an award programme of United Nations Convention to Combat Desertification (UNCCD), which is conferred every two years. The Land for Life Award aims to provide global recognition to individuals and organizations whose work and initiatives have made a significant contribution to sustainable development through sustainable land management (SLM). Land for life Award 2021 was conferred to the Familial Forestry of Rajasthan, India, by UNCCD on 17th June 2021.</li> <li>This movement involved more than a million families from more than 15,000 villages of desert-prone northwest Rajasthan. About 2.5 million saplings have been planted in the past 15 years, with active participation of students and desert dwellers, as per UNCCD.</li> <li>While conferring the award, UNCCD has stated that, Familial Forestry of Rajasthan, India is a unique concept that relates a tree with a family, making it a green "family member". This green or eco socialization brings environmental sensitivity and empowerment.</li> <li>The Government has various schemes relating to afforestation/plantation leading to combating desertification and land degradation depending on the climatic and geographical condition of that particular area including schemes of MOEFCC under Twenty Point Programme (TPP) like National Afforestation Programme (NAP), National Mission for a Green India (GIM) etc.</li> </ul>
<b>MH-60R helicopters</b>	<p><b>Context:</b> The first batch of Indian Navy aircrew successfully completed its training on the MH-60R Multi-Role Helicopters (MRH) at the U.S. Naval Air Station, North Island in San Diego.</p> <ul style="list-style-type: none"> <li>The first batch of three helicopters are expected to arrive in India by June.</li> </ul> <p><b>Key takeaways</b></p> <ul style="list-style-type: none"> <li>The crew would be responsible for inducting the versatile 'Romeo' into the Indian Navy.</li> <li>This will be the first major induction of helicopters by the Navy in decades for deployment on ships. <ul style="list-style-type: none"> <li>The Navy is facing an acute shortage of helicopters on its frontline warships but procurement of new ones has been repeatedly delayed.</li> </ul> </li> <li>The MH-60Rs are a replacement of the Sea King 42/42A helicopters already decommissioned in the 1990s.</li> <li>They are envisaged to operate from the frontline ships and aircraft carriers providing them the critical attributes of flexibility of operation, enhanced surveillance and attacking capability.</li> <li>The MH-60R helicopters will provide the Navy enhanced offensive role including anti-submarine warfare, anti-ship strike, specialised maritime operations as well as search and rescue operations.</li> </ul>

<p><b>World Homoeopathy Day</b></p>	<p>The World Homoeopathy Day is observed on 8<sup>th</sup> April to commemorate the birth anniversary of the founder of Homoeopathy, Dr. Christian Fredrich Samuel Hahnemann. Also known as the</p> <ul style="list-style-type: none"> <li>• Father of Homeopathy</li> <li>• Father of Human Pharmacology</li> <li>• Father of Nano Medicine</li> <li>• Father of Infinite Dilution concept in Chemistry</li> </ul> <p><i>Homeopathy</i></p> <ul style="list-style-type: none"> <li>• Homeopathy is a medical system based on the belief that the body can cure itself. Those who practice it use tiny amounts of natural substances, like plants and minerals. They believe these stimulate the healing process. It's an alternative medicinal practice that uses the smallest possible amount of an active ingredient in order to help treat or cure a disease, even if this same ingredient can contribute to an illness in the first place. Another way to put this concept: "like cures like"!</li> <li>• This practice helps stimulate the immune system and the body's natural ability to heal – that which a substance is capable of causing, it is also capable of curing.</li> </ul> <p><i>National Commission for Homoeopathy</i></p> <ul style="list-style-type: none"> <li>• The Commission shall consist of the following persons, namely: –(a) a chairperson; (b) seven ex officio Members; and (c) nineteen part-time Members.</li> <li>• <b>Functions of the National Commission for Homoeopathy:</b> <ul style="list-style-type: none"> <li>○ Framing policies for regulating medical institutions and homoeopathic medical professionals.</li> <li>○ Assessing the requirements of healthcare related human resources and infrastructure.</li> </ul> </li> </ul> <p><i>About the National Commission for Homoeopathy (NCH) Act, 2020</i></p> <ul style="list-style-type: none"> <li>• The NCH, Act, 2020 come in to force w.e.f. 5th July 2021 after repealing the Homoeopathy Central Council Act, 1973 and applies to whole of India.</li> <li>• The 2020 Act replaced the Council with a National Commission of Homoeopathy for regulating homoeopathic education and practice.</li> <li>• The Act is having the provision for having interface between Homoeopathy, Indian system of Medicine and Modern system of Medicine to promote medical pluralism.</li> <li>• It also provides provision for the State Government to take necessary measures to address various issues related to health including promotion of public health through Homoeopathy.</li> </ul>
<p><b>National Time Release Study, 2022 Released</b></p>	<ul style="list-style-type: none"> <li>• Time Release Studies (TRS) are a performance measurement tool for assessing the cargo clearance process of the international trade, as recommended by the World Trade Organization (WTO) under the Trade Facilitation Agreement (TFA) and the World Customs Organization (WCO).</li> <li>• It adopts average cargo release time, i.e. the time taken from the arrival of the cargo at the customs station to its eventual release for import or export, as the case may be.</li> </ul>

	<ul style="list-style-type: none"> <li>Improvements reported –</li> <li>In the average cargo release time for all the four port categories in 2022 over corresponding period of the previous year: by 2 percent for ICPs to significantly higher 16 percent for ACCs.</li> <li>For the sea cargo cleared through the sea port or inland container depots average release time has improved by 12 percent. With this improvement, the ICPs have achieved the National Trade Facilitation Action Plan (NTFAP) target release time to be achieved by 2023, whereas the other three port categories have reached 75 percent of NTFAP target.</li> </ul>
<b>White Spot Syndrome Virus (WSSV)</b>	<ul style="list-style-type: none"> <li>An aquaculture pathogen</li> <li>Scientists have developed a handy diagnostic tool that detects WSSV to boost shrimp cultivation</li> </ul> <p><i>Significance</i></p> <ul style="list-style-type: none"> <li>Infection caused by the WSSV to the shrimp <i>Penaeus vannamei</i> results in huge loss of crop.</li> <li>This high value super-food is susceptible to a wide range of viral and bacterial pathogens and the probability of occurrence of infections is rather high.</li> <li>Improved nutrition, probiotics, disease resistance, quality control of water, seed and feed, immuno-stimulants and affordable vaccines play an important role in enhancing the production.</li> <li>Technologies for early and rapid detection of pathogens on the field will help fish and shell-fish farming which provides significant export revenue to the country which is a leading supplier of shrimp to the USA.</li> </ul>
<b>World's loudest bird</b>	<ul style="list-style-type: none"> <li>Bellbirds have the loudest bird calls yet documented in the world, according to a study.</li> <li>The study found that their mating songs pack more decibels than the screams of howler monkeys and the bellows of bison.</li> <li>The male white bellbird's mating call is about three times louder than screaming phias – the previously loudest bird singer.</li> </ul>
<b>Zero Shadow Day</b>	<b>A phenomenon that happens twice a year when the sun is exactly overhead</b>
<b>India's designation by the USCIRF</b>	<p><b>Context:</b> In its 2022 Annual report, the United States Commission on International Religious Freedom (USCIRF) has recommended that <b>India be designated a 'Country of Particular Concern' (CPC)</b>, i.e., the category of governments performing <b>most poorly on religious freedom criteria</b>.</p> <ul style="list-style-type: none"> <li>India has in the past said that the American body on international religious freedom has chosen to be guided only by its biases on a matter on which it has no locus standi.</li> <li>Other countries recommended for this designation by the USCIRF are China, Pakistan, Afghanistan, Burma, Eritrea, Iran, Nigeria, North Korea, Russia, Saudi Arabia, Syria, Tajikistan, Turkmenistan, and Vietnam.</li> </ul> <p><b>The United States Commission on International Religious Freedom</b> is an independent, bipartisan American government agency that monitors the universal right to freedom of religion and makes policy suggestions to the White House.</p>





## Integrated Learning Program (ILP) – 2023



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## POLITY AND GOVERNANCE

### Assam-Meghalaya boundary dispute resolution

**Context:** Two months after signing a draft resolution on January 29, Assam and Meghalaya partially resolved a 50-year-old dispute along their 884.9 km boundary.

- An agreement in this regard, termed historic, was signed between Assam Chief Minister Himanta Biswa Sarma and Meghalaya CM Conrad K. Sangma in the presence of Home Minister Amit Shah.

#### **How did the boundary dispute start?**

- Meghalaya, carved out of Assam as an autonomous State in 1970, became a full-fledged State in 1972.
- The creation of the new State was based on the Assam Reorganisation (Meghalaya) Act of 1969, which the Meghalaya government refused to accept.
- This was because the Act followed the recommendations of a 1951 committee to define the boundary of Meghalaya.
- On that panel's recommendations, areas of the present-day East Jaintia Hills, Ri-Bhoi and West Khasi Hills districts of Meghalaya were transferred to the Karbi Anglong, Kamrup (metro) and Kamrup districts of Assam.
- Meghalaya contested these transfers after statehood, claiming that they **belonged to its tribal chieftains**.
- Assam said the Meghalaya government could neither provide documents nor archival materials to prove its claim over these areas. After claims and counter-claims, the dispute was narrowed down to **12 sectors** on the basis of an official claim by Meghalaya in 2011.

#### **How did the two governments go about handling the issue?**

- The two States had initially tried resolving the border dispute through negotiations but the first serious attempt was in May 1983 when they formed a joint official committee to address the issue.
- In its report submitted in November 1983, the committee suggested that the Survey of India should re-delineate the boundary with the cooperation of both the States towards settling the dispute. There was no follow-up action.
- As more areas began to be disputed, the two States agreed to the constitution of an independent panel in 1985. Headed by Justice Y.V. Chandrachud, the committee submitted its report in 1987. Meghalaya rejected the report as it was allegedly pro-Assam.
- Following more disputes and resultant violence, the two governments agreed in January 1991 to jointly demarcate the border with the help of the Survey of India. About 100 km of the border was demarcated by the end of 1991, but Meghalaya found the exercise unconstitutional and refused to cooperate.
- In 2011, the **Meghalaya Assembly passed a resolution for central** intervention and the constitution of a boundary commission.

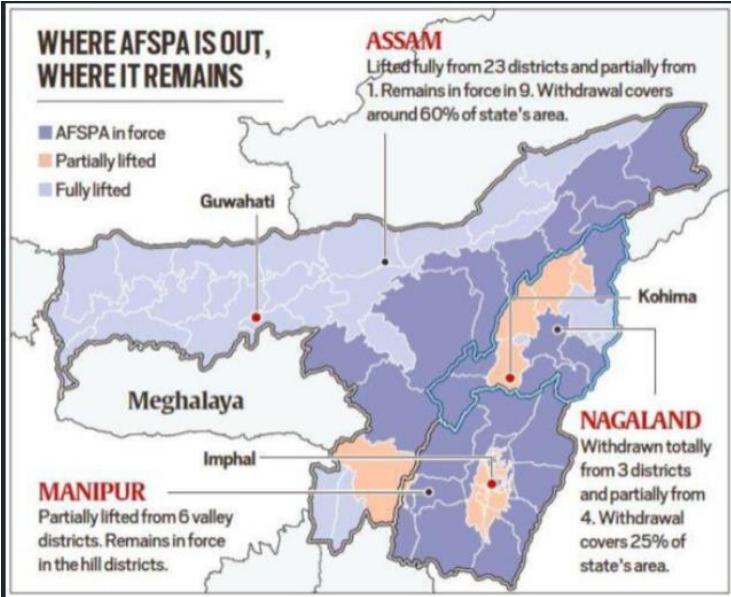
- The Assam Assembly retaliated with a resolution to oppose the move. But the Centre made the two governments appoint nodal officers to discuss the boundary dispute to minimise the points of difference.
- In 2019, the Meghalaya government petitioned the Supreme Court to direct the Centre to settle the dispute. The petition was dismissed.

#### **How was the ice broken?**

- In January 2021, Union Home Minister urged all the north-eastern States to resolve their boundary disputes by August 15, 2022, when the country celebrates 75 years of Independence.
- It was felt that the effort could be fast-tracked since the region's sister-States either had a Bharatiya Janata-led government or that of its allies.
- In June 2021, the two States decided to resume talks at the CM level and adopt a "give-and-take" policy to settle the disputes once and for all.
- Of the 12 disputed sectors, **six "less complicated" areas** — Tarabari, Gizang, Hahim, Boklapara, Khanapara-Pilingkata and Ratacherra — were chosen for resolving in the first phase.
- Both States formed three regional committees, one each for a district affected by the disputed sectors. These committees, each headed by a cabinet minister, were given "five principles" for approaching the issue. These principles are
  - historical facts of a disputed sector
  - ethnicity
  - administrative convenience
  - willingness of people
  - contiguity of land preferably with natural boundaries such as rivers, streams and rocks.
- The committee members conducted surveys of the disputed sectors and held several meetings with the local stakeholders.
- On January 29, the two governments signed a draft resolution prepared on the basis of the recommendations of these regional panels. This paved the way for the March 29 closure of the six disputed sectors.

#### **Will the partial settlement impact border disputes elsewhere in the Northeast?**

- According to the partial boundary deal, Assam will get 18.51 sq. km of the 36.79 sq. km disputed area while Meghalaya will get the remaining 18.28 sq. km.
- There is no clarity yet on the villages or uninhabited stretches that would be divided.
- Also, some political parties and community-based groups in Meghalaya are unhappy about acceding any part of the disputed areas to Assam. Reactions are similar in Assam.
- But officials in Assam said it was better to let go of areas where they did not have any administrative control rather than "live with an irritant forever".
- However, residents in the other six disputed sectors — Langpih, Borduar, Nongwah, Matamur, Deshdemoreah Block I and Block II, and Khanduli — feel the "give-and-take" template could spell disaster for them. The fear

	<p>is more among non-tribal people who could end up living in a “tribal Meghalaya with no rights for us”.</p> <ul style="list-style-type: none"> <li>According to a paper tabled in the Assam Assembly in August 2014, six neighbouring States control 77,531.71 hectares of Assam land. Apart from Meghalaya, the other States are Arunachal Pradesh, Mizoram, Nagaland, Tripura and West Bengal.</li> </ul> <p><b>Connecting the dots :</b></p> <ul style="list-style-type: none"> <li><a href="#">Assam-Mizoram Border dispute</a></li> <li><a href="#">Naga issue</a></li> </ul>
<p><b>Withdrawal of AFSPA from major parts of North East</b></p>	<p><b>Context:</b> Recently, Union government significantly reduced the footprint of the Armed Forces Special Powers Act (AFSPA), 1958 in the Northeast.</p> <ul style="list-style-type: none"> <li>It is withdrawn entirely from 23 districts in Assam.</li> <li>It is partially withdrawn from seven districts in Nagaland, six districts in Manipur, and one district in Assam</li> </ul>  <p><b>What is AFSPA?</b></p> <ul style="list-style-type: none"> <li><b>Colonial Legacy continued:</b> The Act in its original form was promulgated by the British in response to the Quit India movement in 1942. After Independence, government decided to retain the Act, which was first brought in as an ordinance and then notified as an Act in 1958.</li> <li><b>Power of imposition:</b> AFSPA can be imposed by the Centre or the Governor of a state, on the state or parts of it, after it is declared “disturbed” under Section 3. The Act defines these as areas that are “disturbed or dangerous condition that the use of armed forces in aid of the civil power is necessary”.</li> <li><b>Special Power to Armed Forces:</b> The Act, which has been called draconian, gives sweeping powers to the armed forces. It allows them to open fire, even causing death, against any person in contravention to the law or carrying arms and ammunition. It gives them powers to arrest individuals without warrants, on the basis of “reasonable suspicion”, and also search premises without warrants.</li> <li><b>Immunity to Armed Personnel:</b> The Act further provides blanket impunity to security personnel involved in such operations: There can be</li> </ul>



	<p>no prosecution or legal proceedings against them without the prior approval of the Centre.</p> <p><b>Why is the recent decision significant?</b></p> <ul style="list-style-type: none"> <li>• The Northeast has lived under the shadow of AFSPA for nearly 60 years, creating a feeling of alienation from the rest of the country.</li> <li>• Once the decision is notified in the gazette, AFSPA remains in force in parts of these three states as well as in parts of Arunachal Pradesh and Jammu &amp; Kashmir.</li> <li>• The move is expected to help demilitarise the region</li> <li>• It will lift restrictions of movements through check points and frisking of residents.</li> <li>• It will also help the Centre calm the anger over the Mon killings in Nagaland and help aid the Naga peace process.</li> </ul> <p><b>After being in force for many years, why has AFSPA been withdrawn now?</b></p> <ul style="list-style-type: none"> <li>• The decision has come as the result of a combination of circumstances.</li> <li>• Over the last two decades, various parts of the Northeast have seen a reduction in insurgencies</li> <li>• A number of major groups were already in talks with the Indian government, and these talks received traction in past few years.</li> <li>• In Nagaland, all major groups — the NSCN(I-M) and Naga National Political Groups (NNPGs) — are at advanced stages of concluding agreements with the government.</li> <li>• In Manipur, insurgency as well as heavy militarisation have been on the decline since 2012.</li> </ul> <p><b>Connecting the dots:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Criticisms of AFSPA</a></li> <li>• Asymmetrical Federalism</li> <li>• <a href="#">Naga Peace Process</a></li> </ul>
<p><b>The ‘Chandigarh question’</b></p>	<p><b>Context:</b> The newly elected Punjab Legislative Assembly passed a resolution, moved by the Chief Minister himself, on April 1 in a special session seeking the transfer of Chandigarh to Punjab. With this, the ‘Chandigarh question’ has resurfaced, but this time it occupies the national spotlight.</p> <p><b>How did Chandigarh come to its current status?</b></p> <ul style="list-style-type: none"> <li>• Chandigarh, described as a ‘planned city’ emblematic of ‘Nehruvian modernity’, is a greenfield city, which was commissioned by the government in independent India to replace Lahore, which went to Pakistan after Partition, as the capital of Punjab.</li> <li>• <b>Designed by Le Corbusier</b> in association with Pierre Jeanneret, it is located on the foothills of the <b>Shivalik Himalayas</b> on village land acquired from what was then the Kharar tehsil of Ambala district.</li> <li>• It was the <b>capital of undivided Punjab</b> from its inauguration in 1953 till 1966.</li> <li>• Under the Punjab Reorganisation Act, 1966 following the Punjabi Suba movement, Haryana was carved out of the Hindi-speaking regions as a separate State while the hill regions of Punjab were merged with what was then the Union Territory (UT) of Himachal Pradesh.</li> <li>• <b>Chandigarh was made a UT</b> and has remained the joint capital of</li> </ul>



Haryana and Punjab with State assets divided between Punjab and Haryana in the ratio of 60:40.

- Since 1966, the lack of full rights to its capital has remained a vexed issue in Punjab politics.
- All the governments and most political parties of Punjab have regularly raised the demand for Chandigarh
  - It has featured in all major developments, whether it is the 1973 Anandpur Sahib resolution, Dharam Yudh Morcha (of Akali Dal with J.S. Bhindranwale) and the 1985 Rajiv-Longowal Accord.
- Since 1966, the Punjab Assembly has passed at least six such resolutions with the last being in 2014 under the Shiromani Akali Dal-Bharatiya Janata Party (SAD-BJP) government.

#### **What is different this time?**

The immediate provocation this time has been two recent decisions of the Central government, both taken in the aftermath of SAD breaking ties with the BJP over the now withdrawn farm laws.

- In February, the Centre amended the rules governing the functioning of the Bhakra Beas Management Board (BBMB), constituted under the 1966 Act, changing the eligibility criteria for the two full-time members of the Board.
  - These board positions though technically open to all Indian officials, by convention gone to officials from Punjab and Haryana. Now, officers from the two States may not be able to meet the new eligibility criteria given the technical qualifications specified.
- Second, the Centre issued a notification bringing **Chandigarh UT administration employees under the Central Services Rules** with effect from April 1, 2022 replacing the Punjab Services Rules. This was considered as an affront to Punjab's claim over Chandigarh.

#### **What has been the position of the Union government on the city?**

- At the time of the 1966 Act, the Union government with Indira Gandhi as Prime Minister **indicated** that the UT status to Chandigarh was temporary and that it would be transferred to Punjab.
- This decision was **formalised** in 1970 with Mrs Gandhi promising Haryana funds for building its own capital.
- According to the 1985 Rajiv-Longowal Accord (to deal with Punjab growing militancy problem), Chandigarh was to be handed over to Punjab on January 26, 1986 but this never fructified after the **assassination of Longowal** and the long period of militancy till the mid-1990s.
- The recent developments could thus indicate a shift in the Central government's position.

#### **Is there a distinctive Chandigarh position?**

- Employees and unions of the Chandigarh administration have mostly welcomed the change in service rules since the Central provisions carry more benefits, especially on retirement age and other allowances, though pay scale-wise Punjab rules are considered better.

	<ul style="list-style-type: none"> <li>• After decades of existence as a UT, Chandigarh has developed a distinctive cultural character.</li> <li>• Given its geographical location at the intersection of three States, as well as the presence of many educational institutions, medical establishments and the Army and Air Force, Chandigarh has developed a <b>unique cosmopolitanism</b> and become a magnet for the youth across the north western region. City residents thus favour the status quo.</li> <li>• The Chandigarh units of political parties, in contrast with their Punjab party units have time and again reiterated retention of the status quo.</li> </ul> <p><b>What about Haryana?</b></p> <ul style="list-style-type: none"> <li>• As in Punjab, all parties in Haryana present a common position asserting the latter's claim to the city and have objected to any move which associates Chandigarh solely with Punjab.</li> <li>• The International Airport which comprises territory from both the UT and Mohali city of Punjab was inaugurated in 2015 but remains nameless as Haryana has objected to the inclusion of Mohali in the name claiming that Haryana has a 50% stake in the airport.</li> <li>• Haryana had also objected to the name 'New Chandigarh' for a township developed in the Mullanpur area adjoining Chandigarh in Punjab.</li> </ul> <p><b>Connecting the dots:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Belagavi Dispute</a></li> <li>• Inter-state Council</li> </ul>
<p><b>Death Penalty</b></p>	<p><b>Context:</b> Recently, SC has agreed to comprehensively examine procedures in death penalty cases.</p> <ul style="list-style-type: none"> <li>• While hearing death sentence appeals since September 2021, the Supreme Court has repeatedly expressed concern over the manner in which trial courts and High Courts have carried out sentencing with very little (relevant) information.</li> </ul> <p><b>What has caused the SC to examine practices in death penalty sentencing?</b></p> <ul style="list-style-type: none"> <li>• The court is undertaking an exercise to reform the procedures by which information necessary in a death penalty case is brought before courts.</li> <li>• In so doing, the Supreme Court is acknowledging concerns with the manner in which death penalty sentencing is being carried out.</li> <li>• While the death penalty has been held to be constitutional, the manner in which it has been administered has triggered accusations of unfairness and arbitrariness.</li> </ul> <p><b>How are judges supposed to choose between life and death sentences?</b></p> <ul style="list-style-type: none"> <li>• In May 1980, when the Supreme Court upheld the constitutional validity of the death penalty in <b>Bachan Singh's case</b>, a framework was developed for future judges to follow when they had to choose between life imprisonment and the death penalty.</li> <li>• At the heart of that framework was the recognition that the legislature in the Criminal Procedure Code had made it clear that life imprisonment would be the default punishment and judges would need to give "<b>special reasons</b>" if they wanted to impose the death sentence.</li> <li>• Through the 1980 framework — popularly known as the "rarest of rare" framework — the Supreme Court said that judges <b>must consider both</b></li> </ul>

**aggravating and mitigating factors** concerning the crime and the accused when deciding if the death penalty is to be imposed.

- The judgment also made it clear that life imprisonment as a sentence would have to be “unquestionably foreclosed” before judges imposed the death sentence
- There was an **indicative list of factors** that the judgment identified as being relevant, but it was clear that it was not meant to be an exhaustive list

**What has happened to this framework in the four decades since Bachan Singh?**

- The Supreme Court has repeatedly lamented the **inconsistency in application** of the Bachan Singh framework.
- Similar concerns have been expressed by the Law Commission of India (262nd Report).
- One of the main concerns has been the **crime-centred approach to sentencing**, often in violation of the mandate in Bachan Singh that factors relating to both the crime and the accused have to be considered.
- There has been widespread concern that the imposition of death sentences has been arbitrary. A study of the 595 death sentences imposed in the last five years shows that this concern is intensifying.

**What is the reason for this?**

- One of the main reasons is that very sparse sentencing information about the accused is brought before the judges.
- While the judgment in Bachan Singh did develop a framework, it was a framework that **depended on the relevant information brought** before the court.
- But the framework did not have any mechanisms to ensure the actual collection of such information and its presentation before judges.
- This has resulted in a situation where there is **barely any meaningful information about the accused** that enters the sentencing process.
- It is an empirical reality that the vast majority of death row prisoners are economically vulnerable and very often receive **poor legal representation**.
- As a result, they do not have access to professionals and experts with the necessary training and skill sets to undertake the complex exercise of collecting mitigation information.
- Also, sentencing judges have often dismissed the consideration of mitigating factors depending on their perception of the crime.
- It points to a deeper gap — that there has been no real guidance on how judges must go about assigning weight to aggravating and mitigating factors, and how they should approach weighing one factor against another.

**What is mitigation, and what are mitigating factors?**

- A criminal trial has two stages — the guilt stage and the sentencing stage. Sentencing happens after the accused has been found guilty of the crime; this is the stage where punishment is determined. Therefore, anything presented or said during sentencing cannot be used to reverse

	<p>or change the finding of guilt.</p> <ul style="list-style-type: none"> <li>• It is a fundamental tenet of criminal law that sentencing must be individualised, i.e, in the process of determining punishment, the judge must take into account individual circumstances of the accused.</li> <li>• The idea of mitigation is to give practical application to considerations of deservedness that are crucial to the moral idea of punishment.</li> <li>• Justice would be an incomplete idea if criminal law was incapable of considering an individual in all their complexity and the various factors that contributed to a set of decisions and actions in their lives.</li> </ul> <p><b>Who can collect all this information?</b></p> <ul style="list-style-type: none"> <li>• The Supreme Court has recognised that it is important to collect this complex interplay of information sentencing is to be done in a proper manner.</li> <li>• The judgments in Santa Singh (1976) and Mohd Mannan (2019) have recognised the interdisciplinary nature of such an exercise, and that it requires <b>professionals other than lawyers</b> to collect such information.</li> <li>• The task is not something lawyers are trained to do — that is the reason the American Bar Association recognises the role of a mitigation specialist with a clearly defined role that goes beyond what lawyers can do.</li> <li>• There must be a very high degree of fairness in a system that is interested in subjecting individuals to the experience of death row, and ultimately taking lives through the instrumentality of law.</li> <li>• With that as the starting point, the criminal justice system needs to do all it can to ensure that systems are <b>created for procedural fairness</b>.</li> </ul> <p><b>Connecting the dots:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Criminal Procedure (Identification) Amendment Bill, 2022</a></li> <li>• <a href="#">Police Reforms</a></li> <li>• <a href="#">Indianisation of Judiciary</a></li> </ul>
<p><b>Punjab-Haryana Water Dispute</b></p>	<p><b>Context:</b> The Haryana Vidhan Sabha has passed a resolution seeking completion of the Sutlej Yamuna Link Canal (SYL) Canal, bringing back into focus the contentious issue of sharing of river waters between Haryana and Punjab.</p> <p><b>The river waters</b></p> <ul style="list-style-type: none"> <li>• The canal, once completed, will enable sharing of the waters of the rivers Ravi and Beas between the two states.</li> <li>• The issue dates back to 1966 at the time of reorganisation of Punjab and formation of Haryana was formed.</li> <li>• Punjab was opposed to sharing the waters of the two rivers with Haryana, citing riparian principles.</li> </ul> <p><b>The shares</b></p> <ul style="list-style-type: none"> <li>• A decade before the formation of Haryana, the water flowing down Ravi and Beas was assessed at 15.85 million acre feet (MAF) per year.</li> <li>• The Union government had organised a meeting in 1955 between the three stake-holders — Rajasthan, undivided Punjab and Jammu and Kashmir — and allotted 8 MAF per year to Rajasthan, 7.20 MAF to undivided Punjab and 0.65 MAF to J&amp;K.</li> <li>• A decade after reorganisation, the Centre issued a notification allocating</li> </ul>

3.5 MAF to Haryana out of the 7.2 MAF allotted to Punjab before reorganisation.

- In a reassessment in 1981, the water flowing down Beas and Ravi was estimated at 17.17 MAF, of which 4.22 MAF was allocated to Punjab, 3.5 MAF to Haryana, and 8.6 MAF to Rajasthan.

#### **The canal**

- On April 8, 1982, then Prime Minister Indira Gandhi launched the construction of the SYL Canal in Patiala district.
- A stretch of 214 km was to be constructed, out of which 122 km was to cross Punjab and 92 km in Haryana.
- But the Akalis launched an agitation in the form of Kapoori Morcha against the construction of the canal. Then in July 1985, Prime Minister Rajiv Gandhi and then Akali Dal chief Sant Harchand Singh Longowal signed an accord agreeing for a new tribunal to assess the water.
- The **Eradi Tribunal** headed by Supreme Court Judge V Balakrishna Eradi was set up to reassess availability and sharing of water.
- In 1987, the tribunal recommended an increase in the shares of Punjab and Haryana to 5 MAF and 3.83 MAF, respectively.

#### **Canal and Militancy**

- On August 20, 1985, Longowal was killed by militants, less than a month for signing the accord.
- In 1990, a chief engineer M L Sekhri and a Superintending Engineer Avtar Singh Aulakh were killed by militants.
- In other violence, labourers were shot dead in Majat village near Chunni and Bharatgarh near Ropar. The construction came to a halt.
- In the backdrop of these incidents, Punjab leaders has been cautioning the Centre not to rake up the issue again.

#### **Punjab's argument**

- As per a state government study, many areas in Punjab may go dry after 2029.
- The state has already over-exploited its groundwater for irrigation purposes. Out of 138 blocks, 109 blocks are "over-exploited".
- In such a situation, the government says sharing water with any other state is impossible.

#### **Haryana's claim**

- Haryana has been staking claim to the Ravi-Beas waters through the SYL Canal on the plea that providing water for irrigation was a tough task for the state.
- In southern parts, where underground water had depleted up to 1700 feet, there was a **problem of drinking water**.
- Haryana has been citing its contribution to the central food pool and arguing that it is being **denied its rightful share in the water as assessed by a tribunal**.

#### **Connecting the dots:**

- [The Chandigarh Question](#)
- [Belagavi Dispute](#)
- Inter-state Council



## Electoral Bonds

**Context:** Chief Justice of India N V Ramana has assured petitioners that the Supreme Court will take up for hearing a pending plea challenging the Electoral Bond Scheme, 2018.

- Two NGOs — Common Cause and Association for Democratic Reforms (ADR) — have challenged the scheme, alleging that it is “distorting democracy”.

### What are electoral bonds?

- Simply put, electoral bonds are an instrument through which anyone can donate money to political parties.
- Such bonds are sold in multiples of Rs 1,000, Rs 10,000, Rs 1 lakh, Rs 10 lakh, and Rs 1 crore.
- They can be bought from authorised branches of the State Bank of India.
- As such, a donor is required to pay the amount via a cheque or a digital mechanism (cash is not allowed) to the authorised SBI branch.
- The donor can then give this bond to the party or parties of their choice.
- The political parties can choose to encash such bonds within 15 days of receiving them and fund their electoral expenses.
- Any party that is registered and has secured **at least one per cent of the votes polled** in the most recent General elections or Assembly elections is eligible to receive electoral bonds
- The electoral bonds **will not bear the name of the donor**. Thus, the political party might not be aware of the donor’s identity.

### When were they introduced and why?

- The central idea behind the electoral bonds scheme was to bring about transparency in electoral funding in India.
- In the Union Budget speech on February 1, 2017, then Finance Minister Arun Jaitley proposed two main changes.
  - One, he reduced the amount of money that a political party could accept in cash from anonymous sources — from Rs 20,000 to Rs 2,000.
  - Two, he announced the introduction of electoral bonds as a way to make such funding more transparent.
- Formally, these bonds were introduced in 2018.

### How many have been sold?

- Electoral bonds can be bought only **during specific windows of time**.
- The 20th such window — between April 1 and April 10 — is currently open.
- According to a written reply in Rajya Sabha last month, Minister of State for Finance provided the break-up of the yearly sale of electoral bonds:
  - Rs 1056.73 crore in 2018;
  - Rs 5071.99 crore in 2019;
  - Rs 363.96 crore in 2020;
  - Rs 1502.29 crore in 2021;
  - Rs 1213.26 crore in 2022.
- In other words, in 19 tranches since 2018 when they were effectively available, bonds worth Rs 9208.23 crore have been sold.

	<ul style="list-style-type: none"> <li>• Of these, bonds worth Rs 9187.55 crore have been encashed by political parties.</li> <li>• Government also underscored that <b>no bonds were sold to foreign entities</b> because the scheme does not allow it.</li> </ul> <p><b>Why have they attracted criticism?</b></p> <ul style="list-style-type: none"> <li>• The central criticism of the electoral bonds scheme is that it does the exact opposite of what it was meant to do: bring transparency to election funding.</li> <li>• For example, critics argue that the anonymity of electoral bonds is only for the broader public and opposition parties.</li> <li>• The fact that such bonds are <b>sold via a government-owned bank (SBI)</b> leaves the door open for the government to know exactly who is funding its opponents.</li> <li>• This, in turn, allows the possibility for the government of the day to either extort money, especially from the big companies, or victimise them for not funding the ruling party.</li> <li>• Therefore, the scheme provides an unfair advantage to the party in power.</li> <li>• Critics have noted that more than 75 per cent of all electoral bonds have gone to the BJP, which is in power at the Centre.</li> <li>• Further, one of the arguments for introducing electoral bonds was to allow common people to easily fund political parties of their choice but more than <b>90% of the bonds have been of the highest denomination</b> (Rs 1 crore).</li> <li>• Moreover, before the electoral bonds scheme was announced, there was a cap on how much a company could donate to a political party: 7.5 per cent of the average net profits of a company in the preceding three years.</li> <li>• However, the government amended the Companies Act to remove this limit, <b>opening the doors to unlimited funding</b> by corporate India.</li> </ul> <p><b>Conclusion</b></p> <ul style="list-style-type: none"> <li>• Voters can also help bring in substantial changes by demanding awareness campaigns. If voters reject candidates and parties that overspend or bribe them, democracy would move a step higher.</li> <li>• Electoral bonds have raised questions on the electoral legitimacy of the government and thus the whole electoral process has become questionable. In this context, the courts should act as an umpire and enforce the ground rules of democracy.</li> </ul> <p><b>Connecting the dots:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Blockchain Technology &amp; Voting</a></li> <li>• <a href="#">ECI's role in ensuring Free &amp; Fair elections</a></li> <li>• <a href="#">Elections and MCC</a></li> </ul>
<p><b>Closing the gaps in Criminal Justice</b></p>	<p><b>Context:</b> The Supreme Court of India, while hearing a criminal appeal, took suo motu cognisance of certain deficiencies and inadequacies which occur during the course of criminal trials. As a result, it issued the necessary directions in Criminal Trials vs The State of Andhra Pradesh (2021) case.</p> <p><b>What were the directions issued?</b></p>

These directions inter alia included

1. **Presentation of site plan**

- The Criminal Procedure Code (CrPC) mandates that the officer-in-charge of a police station shall proceed to the spot (of the crime) in person to investigate the facts and circumstances of the case and prepare a site sketch.
- This site plan was admissible if the witnesses corroborate these statements of the draftsman that they showed him the places.
- **Significance:** The guidelines issued now say that the site sketch can be prepared by investigating officer or nominated person depending on the importance of case. As a result, the police need to develop its own cadre of draftsmen

2. **Inquest report and body sketches (in a post-mortem report) in a uniform manner**

- If the evidence and materials collected during an inquest 'make it a prima facie case of any offence', a criminal case is registered and regular investigation taken up even without any formal complaint from anyone
- The guidelines mandate that every medico-legal certificate and post-mortem report shall contain a printed format of the human body (with both a frontal and rear view)
- **Significance:** Their standardisation will not only help the court to better appreciate these reports and scrutinise the evidence, but will also help the investigating officers and doctors to refresh their memory with more clarity.

3. **Photographs and videographs of a post-mortem in certain cases**

- Having trained photographers at police stations (in accordance with Supreme Court's ruling of 2018 in *Shafhi Mohammad vs the State of Himachal Pradesh*) is also under way in a phased manner so that scenes of heinous offences are videographed and photographed using digital cameras.
- The draft Code now provides that the investigating officer shall seize such photographs and videographs, preserve the original (separate memory card) and obtain certificate under Section 65B (regarding admissibility of electronic records) of the Indian Evidence Act, 1872.
- **Significance:** The purpose of these guidelines is to ensure that there is uniformity of procedure in dealing with cases of death in police action or police custody without any tampering of evidence.

4. **Separation of prosecution from the investigation.**

- The Court in *Sarala vs T.S. Velu* (2000) held that as per the scheme of the CrPC, the investigation ends with the formation of an opinion by the police as to whether, on the material collected, a case is made out to place the accused for trial
- The formation of the said opinion by the police is the final step of investigation, and this final step is to be taken by the police and by no other authority. The public prosecutor is an officer of the court and his role essentially is inside the court.
- More recently, in *State of Gujarat vs Kishanbhai* (2014), the Court, while taking note of the many lapses in investigation, directed that 'on

	<p>completion of the investigation in a criminal case, the prosecuting agency should apply its independent mind, and require all shortcomings to be rectified, if necessary, by requiring further investigation’.</p> <ul style="list-style-type: none"> <li>• <b>Significance:</b> Since, investigation and prosecution are two different facets in the administration of criminal justice, the three judge Bench of the Supreme Court has now rightly asked the States to separate the two wings. <ul style="list-style-type: none"> <li>○ Chhattisgarh has sanctioned a cadre of law officers (who shall function independently of the public prosecutors and will have no role in the court) to assist the investigating officers in educating and improving investigation work.</li> </ul> </li> </ul> <p>5. <b>Direction to High Court</b></p> <ul style="list-style-type: none"> <li>• The High Courts and the State governments were, accordingly, asked to notify the draft “Rules of Criminal Practice, 2021” which all the States and the High Courts had agreed upon with minor variations, and make consequential amendments in their police and other manuals.</li> </ul> <p><b>Conclusion</b></p> <p>while the creation of a cadre of draftsmen and photographers may take time, executive orders may be issued without further delay, followed by training of investigating officers and medical doctors, in order to implement the Supreme Court’s directives.</p> <p><b>Connecting the dots:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Police Reforms</a></li> <li>• <a href="#">Criminal Procedure (identification) bill, 2022</a></li> </ul>
<p><b>UIDAI audit by CAG</b></p>	<p><b>Context:</b> Comptroller and Auditor General (CAG) of India, has pulled up the Unique Identification Authority of India (UIDAI) for “deficient data management”.</p> <ul style="list-style-type: none"> <li>• UIDAI is the statutory authority established in 2016 to issue Aadhaar to all residents of the country.</li> <li>• As of October 31, 2021, UIDAI had issued 131.68 crore Aadhaar numbers</li> </ul> <p><b>What are the problems with UIDAI that have been identified by the CAG?</b></p> <p>CAG in its 108-page audit report on the functioning of the UIDAI has brought out some of the following issues:</p> <ul style="list-style-type: none"> <li>• Data of Aadhaar card holders <b>have not been matched</b> with their Aadhaar number even after 10 years in some cases.</li> <li>• There is absence of a <b>system to analyse the factors</b> leading to authentication errors</li> <li>• Even though UIDAI was maintaining one of the largest biometric databases in the world, it <b>did not have a data archiving policy</b>, which is considered “a vital storage management best practice”.</li> <li>• CAG also noted that UIDAI provided Authentication services to banks, mobile operators and other agencies <b>free of charge till March 2019</b>, contrary to the provisions of their own Regulations, depriving revenue to the Government.</li> </ul> <p><b>What about personal information with UIDAI, the security of which has been a persistent concern?</b></p> <ul style="list-style-type: none"> <li>• The CAG has flagged that UIDAI has not ensured that the applications or</li> </ul>

	<p>devices used by agencies or companies for authentication “were not capable of storing the personal information of the residents, which put the privacy of residents at risk”.</p> <ul style="list-style-type: none"> <li>• The Authority had not ensured security and safety of data in Aadhaar vaults.</li> <li>• “They had not independently conducted any verification of compliance to the process involved,” the CAG said in its report.</li> </ul> <p><b>What are the other concerns raised by CAG?</b></p> <ul style="list-style-type: none"> <li>• CAG has noted that the UIDAI has not prescribed any specific proof, document, or process to confirm whether a person who is applying for Aadhaar has resided in India for the period specified by the Rules.</li> <li>• Therefore, “there is no assurance that all the Aadhaar holders in the country are ‘Residents’ as defined in the Aadhaar Act”, says the report.</li> <li>• In the conclusion of its report, the CAG has said that UIDAI generated Aadhaar numbers with incomplete information, which, along with the lack of proper documentation or poor quality biometrics, have resulted in <b>multiple or duplicate Aadhaar cards being issued</b> to the same person.</li> <li>• CAG report notes that “UIDAI should go beyond self-declaration, and prescribe a procedure and required documentation other than self-declaration, in order to confirm and authenticate the residence status of applicants”.</li> <li>• CAG has noted that the UIDAI does not have adequate <b>arrangements with the postal department</b>, due to which a large number of Aadhaar cards were returned t</li> <li>• Aadhaar numbers with poor quality biometrics induces authentication errors. UIDAI takes no responsibility for it and transfers the onus of updating the biometrics to the resident and also charges fees for it.</li> </ul>
<p><b>Care Work and Care Economy</b></p>	<p><b>Context:</b> Care work and care economy — a system that consists of activities and relationships involved in meeting the physical, emotional, and psychological aspects of care — remains an integral but undervalued component of economies all over the world.</p> <ul style="list-style-type: none"> <li>• Care work encompasses direct activities such as feeding a baby or nursing an ill partner, and indirect care activities such as cooking and cleaning’.</li> </ul> <p><b>Why government needs to recognize care work &amp; invest in care infrastructure?</b></p> <ul style="list-style-type: none"> <li>• <b>Shift in mind set:</b> Treating care economy assets as infrastructure explicitly recognises childcare and elderly care spending as investments rather than expenditures.</li> <li>• <b>Strengthens Right to life:</b> Care services will also deliver the benefits of child development, aging in dignity and emotional &amp; psychological stability in one’s life.</li> <li>• <b>Increase female labour force:</b> If an additional 2 per cent of the GDP was invested in the Indian health and care sector, 11 million additional jobs could be generated, nearly a third of which would go to women thus increasing female labour force participation rate.</li> <li>• <b>Prevents Occupational downgrading:</b> Women with care work responsibilities often take up flexible lower pay jobs to manage both</li> </ul>



professional work & care work. Investing in care infrastructure can thus prevent “occupational downgrading”.

- **Economic growth:** Care economy also helps in stoking gender-inclusive economic growth. Women’s unpaid work is valued at 3.1% of GDP in India. Recognising AWWs, ANMs, ASHAs and domestic help (amongst others), as formal sector workers would allow their economic contribution to be counted in the GDP.
- **Involving Private Sector:** Investment in care infrastructure and services can also be in the form of public private partnerships, to develop expertise of the private sector.
- **Improved Productivity:** Workplaces that provide time, income security and space for undertaking care services such as breastfeeding, enable positive nutrition and health outcomes improving productivity of workers.

#### **Challenges faced by Care Economy**

- India spends **less than one per cent of GDP on care work** infrastructure and services, including pre-primary education, maternity, disability and sickness benefits, and long-term care as per the ILO.
- Also, since March 2020, the demand for care services has skyrocketed but the investment in the care economy remains standstill
- Unpaid care work is linked to **labour market inequalities**, yet it has yet to receive adequate attention in policy formulation.
- India offers 26 weeks of maternity leave, against the ILO’s standard mandate of 14 weeks that exists in 120 countries. However, this coverage extends to only a tiny proportion of women workers in formal employment in India, where **89% of employed women are in informal sector**.
- While **paternity leave** is recognised as an enabler for both mothers and fathers to better balance work and family responsibilities, it is not provided in India.
- The country’s 2.5 million women Anganwadi workers (AWWs), auxiliary nurse-midwives (ANMs) and accredited social-health activists (ASHAs) are **not recognised as workers** and do not have requisite access to workers’ rights and entitlements in India.
- The Maternity Act, 2017 mandates that employers must provide crèche facilities within a prescribed distance. The absence of clear implementation guidelines, penalty provisions, or monitoring makes **non-compliance continue** unabated.

#### **Way Ahead**

- Care work should be viewed as a collective responsibility and public good.
- ILO proposes a 5R framework for decent care work centred around achieving gender equality. The framework urges for
  - Recognition, Reduction, and Redistribution of unpaid care work
  - Rewarding care workers with more and decent work
  - Representation in social dialogue and collective bargaining

#### **Connecting the dots:**

- [Wages for House work](#)

- [Recognising the Value of Housework](#)
- [Women Leadership](#)

### Midday meal and supplements

**Context:** From the next academic session, Karnataka is likely to become the 13th state to provide eggs under the midday meal scheme (MMS).

- The proposal comes on the back of successive surveys pointing out high prevalence of malnutrition, anaemia and low immunity among children in many parts of the state.
- National Family Health Survey-V found 35% children under five stunted, and around 20% wasted in Karnataka State.

#### What is the history of the Midday meal scheme?

- The current version of the programme, renamed **PM Poshan Shakti Nirman or PM Poshan** in 2021, traces its roots to 1995;
  - It was launched as a centrally sponsored scheme on August 15, 1995 across 2,408 blocks for students up to Class 5. In 2007, the UPA government expanded it to Class 8.
- However, the first initiative to provide meals to children had been taken by the **erstwhile Madras Municipal Corporation around 1920**.
- In post-Independence India, Tamil Nadu was the pioneer, with Chief Minister K Kamaraj rolling out a school feeding scheme in 1956.
- Kerala had a school lunch scheme run by a humanitarian agency from 1961. The state government officially took over the initiative on December 1, 1984.
- Over the next few years, many other states launched their own versions of the scheme, and finally in 1995, the Centre stepped in.

#### What is the scale of the scheme today?

- The scheme covers **11.80 crore children** across Classes 1 to 8 (age group 6 to 14) in 11.20 lakh government and government-aided schools and those run by local bodies.
- In the Budget for 2022-23, the Centre has earmarked Rs 10,233 crore for the scheme, while the states are expected to spend Rs 6,277 crore.
- It is not just a scheme, but a **legal entitlement of all school-going children** in primary and upper primary classes, through the National Food Security Act (NFSA), 2013, as well as the Supreme Court's ruling in People's Union of Civil Liberties vs Union of India and Others (2001).

#### ADDITIONAL FOOD ITEMS SERVED TO CHILDREN

STATE	FOOD	NUMBER OF DAYS / WEEK
Andhra Pradesh	Egg/Banana, Chikki	5, 3
Bihar	Egg	1
Gujarat	Milk (12 dists, 26 blocks)	5
Haryana	Milk	3
Jharkhand	Egg/Seasonal fruit	2
Karnataka	Hot flavoured milk	5
Kerala	Boiled egg/Banana, Milk	1, 2
Madhya Pradesh	Milk	3
Maharashtra	Banana/Soya biscuit/Rajgira laddu/Chikki	1
Odisha	Egg	2
Punjab	Sweet kheer	1
Rajasthan	Seasonal fruit, Hot milk	1, Daily
Tamil Nadu	Egg/Banana	Daily
Telangana	Egg	3



STATE	FOOD	NUMBER OF DAYS / WEEK
Uttar Pradesh	Seasonal fresh fruit	1
Uttarakhand	Egg/Fruit/Milk/Gud popdi/Rundana ke laddu	1
West Bengal	Egg/Cheese/Mushroom	1

Note: For 2021-22, Source: Parliament Question

#### What is usually on the menu?

- The menu varies from one state or Union Territory to another.
- But the authorities need to ensure that the nutritional component of the meal made up of rice, pulses, vegetables, oil and fat provide at least **450**

**calories and 12 gm protein to children in primary grades.**

- For upper primary children, the requirements are 700 calories and 20 gm protein.
- The variations are in the cases of additional items such as milk, eggs, chikki, or fruits that the states provide as supplementary nutrition, the expenses for which are borne by the state government.

**How wide are these variations in supplementary nutrition?**

- For instance, eggs, and bananas to vegetarians, are currently provided only by 13 states and three UTs.
- Tamil Nadu provides eggs on all school working days; Andhra Pradesh, at least five days a week; Telangana and Andaman and Nicobar Islands, thrice a week; Jharkhand, Odisha, Tripura and Puducherry, twice a week; etc.
- States and UTs that provide milk include Gujarat, Karnataka, Kerala, Madhya Pradesh, Mizoram, Rajasthan, Uttarakhand, Ladakh and Puducherry.
- Among other food items, West Bengal provides cheese and mushroom on a limited scale, while Andhra Pradesh and Maharashtra provide chikki.
- In Lakshadweep, chicken is provided as well.

**Why are eggs part of the menu in so few states and UTs?**

- Some states, such as Arunachal Pradesh, **find it costly.**
- Also, **dietary choices** are an intensely contested area in India due to caste rigidities, religious conservatism and regional differences. Thus, the debate becomes political too.
- As a result, despite successive scientific studies, including those commissioned by state governments, showing the benefits of giving children eggs, many states have been reluctant about adding eggs to the school lunch menu.
  - Chhattisgarh, which found a low quantity of protein in 30-35% of the samples from meals it tested, decided to overcome the problem by giving eggs two days a week but ran into political opposition.
  - In Madhya Pradesh, the Congress government's decision to add eggs to the menu of anganwadis was overturned by the BJP government in 2020.
  - In Karnataka, proposals to add eggs have been fiercely resisted in the past by Lingayat and Jain seers.
- But many states have tackled such objections by making fruits available as an alternative to eggs.

**Do the Centre and states run the scheme jointly?**

- Under the rules, the allocation of Rs 4.97 per child per day (primary classes) and Rs 7.45 (upper primary) are shared in 60:40 ratio with states and UTs with a legislature,
  - The sharing is 90:10 with the Northeastern states, Jammu and Kashmir, Himachal Pradesh and Uttarakhand
  - However, the Centre bears 100% of the costs in UTs without legislature.

	<ul style="list-style-type: none"> <li>• But the states and UTs that supplement the meals with additional items such as milk and eggs contribute more.</li> <li>• Components such as payments to cooks and workers are also split in the same ratio between the Centre and states.</li> <li>• However, the Centre bears the entire cost of foodgrains and their transportation, and also handles the expenditure on management, monitoring and evaluation of the scheme.</li> </ul> <p><b>Connecting the dots:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Revising Food Security Act</a></li> <li>• <a href="#">COVID and Food Security</a></li> <li>• <a href="#">Ration Card Reform</a></li> </ul>
<b>WHO and Traditional Medicine</b>	<p><b>Context:</b> Prime Minister Narendra Modi, along with World Health Organization (WHO) Director-General Dr Tedros Ghebreyesus, will perform the groundbreaking ceremony for the first-of-its-kind <b>WHO Global Centre for Traditional Medicine (GCTM)</b> in Jamnagar, Gujarat.</p> <p><b>What is traditional medicine?</b></p> <ul style="list-style-type: none"> <li>• The WHO describes traditional medicine as the total sum of the “knowledge, skills and practices indigenous and different cultures have used over time to maintain health and prevent, diagnose and treat physical and mental illness”.</li> <li>• Its reach encompasses ancient practices such as acupuncture, ayurvedic medicine and herbal mixtures as well as modern medicines.</li> <li>• Traditional medicine in India is often defined as including practices and therapies — such as yoga, Ayurveda, Siddha — that have been part of Indian tradition historically, as well as others — such as homeopathy — that became part of Indian tradition over the years.</li> </ul> <p><b>What will the GCTM be about?</b></p> <ul style="list-style-type: none"> <li>• On November 3, 2020, WHO Director General announced the establishment of the WHO GCTM in India .</li> <li>• The Union Cabinet in March 2022 approved its establishment in Jamnagar with the signing of a host country agreement between the Government of India and the WHO.</li> <li>• India has committed an estimated \$250 million to support the GCTM’s establishment, infrastructure and operations.</li> <li>• The GCTM will aim to <b>focus on evidence-based research</b>, innovation, and data analysis to optimise the contribution of traditional medicine to global health.</li> <li>• Its main focus will to <b>develop norms, standards and guidelines</b> in technical areas relating to traditional medicine.</li> <li>• The GCTM will support efforts to implement the WHO’s Traditional Medicine Strategy (2014-23), which aims to support nations in <b>developing policies &amp; action plans</b> to strengthen the role of traditional medicine in pursuing the goal of universal health coverage.</li> <li>• The WHO and the central government are also aiming at using technology and innovation, such as artificial intelligence, to <b>map traditional medicine trends</b>, innovations and patents, linking to WHO’s Innovation Hub.</li> </ul>

- According to WHO estimates, **80% of the world's population uses traditional medicine.**

#### **Why has the WHO felt the need to advance knowledge of traditional medicine?**

- First, the Jamnagar centre will serve as the hub, and focus on **building a solid evidence base** for policies and help countries integrate it as appropriate into their health systems.
  - The WHO says 170 of its 194 WHO Member States have reported the use of traditional medicine, and these member states have asked for its support in creating a body of reliable evidence and data on traditional medicine practices and products.
- Second, WHO has stressed the need to **conserve biodiversity and sustainability** as about 40% of approved pharmaceutical products today derive from natural substances.
  - For example, the discovery of aspirin drew on traditional medicine formulations using the bark of the willow tree.
  - Contraceptive pill was developed from the roots of wild yam plants .
  - Child cancer treatments have been based on the rosy periwinkle.
- Third, the WHO has referred to **modernisation of the ways traditional medicine** is being studied. Artificial intelligence is now used to map evidence and trends in traditional medicine.
  - Functional magnetic resonance imaging is used to study brain activity and the relaxation response that is part of some traditional medicine therapies such as meditation and yoga, which are increasingly drawn on for mental health and well-being in stressful times.
- Fourth, the WHO has said traditional medicine is also being extensively updated by mobile phone apps, online classes, and other technologies. The GCTM will serve as a hub for other countries, and **build standards on traditional medicine practices and products.**

#### **Has India taken up similar collaborative efforts earlier?**

- Yes. In 2016, the Ministry of AYUSH signed a project collaboration agreement (PCA) with the WHO in the area of traditional medicine.
- The aim was to create benchmarks for training in yoga, Ayurveda, Unani and Panchakarma, for traditional medicine practitioners.
- The collaboration also aimed at promoting the quality and safety of traditional medicine and consumer protection.
- At least 32 MoUs for undertaking collaborative research and development of traditional medicine have been signed with institutes, universities and organisations from the US, Germany, UK, Canada, Malaysia, Brazil, Australia, Austria, Tajikistan, Saudi Arabia, Ecuador, Japan, Indonesia etc.
- Also, the CSIR and the Bill & Melinda Gates Foundation have signed an MoU to identify opportunities for scientific and technological research in traditional medicine as well as beyond.

#### **Connecting the dots:**

- [Ayushman Bharat Digital Mission](#)



<p><b>India's National Cyber Security Strategy</b></p>	<ul style="list-style-type: none"> <li>• <a href="#">National AYUSH Mission</a></li> </ul> <p><b>Context:</b> Amid a surge in cyberattacks on India's networks, Centre is yet to implement the National Cyber Security Strategy which has been in the works since 2020.</p> <p><b>What is National Cyber Security Strategy?</b></p> <p>Conceptualised by the Data Security Council of India (DSCI) headed by Lt General <b>Rajesh Pant</b>, the report focuses on 21 areas to ensure a safe, secure, trusted, resilient, and vibrant cyberspace for India.</p> <p>Here are the main sectors of focus of the report:</p> <ul style="list-style-type: none"> <li>• <b>Large scale digitisation of public services:</b> Focusing on security in the early stages of design in all digitisation initiatives, developing institutional capability for assessment, evaluation, certification, and rating of the core devices and timely reporting of vulnerabilities and incidents.</li> <li>• <b>Supply chain security:</b> Monitoring and mapping of the supply chain of the Integrated circuits (ICT) and electronics products, scaling up product testing and certification, leverage the country's semiconductor design capabilities globally at strategic, tactical and technical level.</li> <li>• <b>Critical information infrastructure protection</b> should include monitoring digitisation of devices, evaluating security devices, maintaining a repository of vulnerabilities, devising audit parameters for threat preparedness and developing cyber-insurance products</li> <li>• <b>Digital payments:</b> Mapping and modeling of devices and platform deployed, routine threat modeling exercises to disclose vulnerabilities, threat research and sharing of threat intelligence, timely disclosure of vulnerabilities</li> <li>• <b>State-level cyber security:</b> Developing state-level cybersecurity policies, allocation of dedicated funds, critical scrutiny of digitization plans, guidelines for security architecture, operations, and governance</li> <li>• <b>Security of small and medium businesses:</b> Policy intervention in cybersecurity granting incentives for higher level of cybersecurity preparedness, developing security standards, frameworks, and architectures for the adoption of Internet of Things (IoT) and industrialisation</li> </ul> <p><b>To implement cybersecurity in the above-listed focus areas, the report lists the following recommendations:</b></p> <ul style="list-style-type: none"> <li>• <b>Budgetary provisions:</b> A minimum allocation of 0.25% of the annual budget, which can be raised upto 1% has been recommended to be set aside for cyber security.</li> <li>• <b>Research &amp; innovation:</b> The report suggests investing in modernisation and digitisation of Integrated Circuits (ICT), set up a short and long term agenda for cyber security via outcome-based programs and host hackathons, hands-on workshops &amp; simulations.</li> <li>• <b>Human Resources:</b> A national framework should be set to provide global professional certifications in security. DSCI further recommends creating a 'cyber security services' with cadres chosen from the Indian Engineering Services.</li> </ul>
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	<ul style="list-style-type: none"> <li>• <b>Crisis management:</b> For adequate preparation to handle crisis, DSCI recommends holding cybersecurity drills which include real-life scenarios with their ramifications.</li> <li>• <b>Cyber Diplomacy:</b> Cyber security preparedness of key regional blocks like BIMSTEC and SCO must be ensured via programs, exchanges and industrial support. To further better diplomacy, the government should promote brand India as a responsible player in cyber security and also create 'Cyber envoys' for the key countries/regions.</li> </ul> <p><b>Progress on implementation of the policy</b></p> <ul style="list-style-type: none"> <li>• Centre clarified that it has formulated a draft National Cyber Security Strategy 2021 which holistically looks at addressing the issues of security of national cyberspace.</li> <li>• Without mentioning a deadline for its implementation, Centre added that it had no plans as of yet to coordinate with other countries to develop a global legal framework on cyber terrorism.</li> </ul> <p><b>Connecting the dots:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Cyber Threats</a></li> <li>• <a href="#">Cybersecurity &amp; banks</a></li> <li>• <a href="#">India needs a Cybersecurity Strategy</a></li> <li>• <a href="#">Global Cyber Security Index</a></li> </ul>
<p><b>Academic Collaboration between Indian and foreign universities</b></p>	<p><b>Context:</b> The University Grants Commission (UGC) has simplified the procedure for enabling academic collaborations between Indian and foreign higher educational institutions.</p> <p><b>What has the UGC proposed?</b></p> <ul style="list-style-type: none"> <li>• UGC has decided to allow <b>certain</b> Indian higher education institutions to enter into a Memorandum of Understanding (MoU) with foreign institutions to offer dual degree, joint degree or twinning programmes.</li> <li>• To qualify for such academic collaboration, the Indian college, institute or university must figure among the top global 1,000 QS World University or Times Higher Education rankings or have emerged as one of the top 100 universities under the National Institutional Ranking Framework (NIRF).</li> <li>• The college or university must have secured a minimum grading of 3.01 on a 4-point scale from the National Assessment and Accreditation Council (NAAC).</li> <li>• Likewise, the foreign collaborator institution must also have figured among the 1,000 global top QS or Times Higher Education Rankings.</li> <li>• The collaborations would be facilitated and governed under the proposed dedicated regulations which has incorporated suggestions after placing it in the public domain for feedback.             <ul style="list-style-type: none"> <li>○ Once notified, the new regulation would supersede the University Grants Commission (Promotion &amp; Maintenance of Standards of Academic Collaboration between Indian and Foreign Educational Institutions) Regulations, 2016.</li> </ul> </li> </ul> <p><b>How do the new regulations differ from that of 2016?</b></p> <ul style="list-style-type: none"> <li>• The earlier regulations did not provide for "automatic mode" of foreign collaboration for academic courses offered in India.</li> </ul>

- While a threshold for accreditation rating was mandated, there was no requirement for the university or college to figure among the top ranked institutions globally.
- The qualifying institution was required to apply to the UGC for approval and a sub-committee was vested with the powers to make a recommendation on the basis of which the regulatory body would take a final decision
- Besides, the approval granted was valid only for two cycles of the minimum duration of the degree programmes covered under the collaboration or as specified otherwise.
- The Indian educational institution was required to apply for renewal of approval before six months of its expiration.
- Under the soon-to-be-notified regulations, the qualifying universities and colleges will not be required to seek permission for academic collaborations abroad.

**How will the courses with foreign collaboration be offered?**

- The qualifying Indian university or college can offer “dual degree”, “joint degree” or a “twinning programme” in collaboration with foreign institutions.
- The “dual degree” programme is new, while the other two programmes were offered under the 2016 regulations, though only fewer institutions had introduced such programmes due to the bureaucratic approval process.
- The degrees, under the “dual degree programme” shall be conferred by the Indian and foreign institutions “separately and simultaneously” upon completion of degree requirements of both universities.
- For the twinning degree programme, a student can get up to **30% course credit utilisation** of the total course from the collaborating foreign university.
- For the joint and dual degree programmes, the students shall be permitted to get more than 30% of the total course credits from the university or institution abroad.
- As per the 2021 draft rules, for enrolling in dual degree programmes, prospective students must meet the admission requirements of both the Indian and foreign institutions and shall apply to and be admitted separately to both the institutions.
- Besides, the students must earn at least 50% of total credits from the Indian institution.
- The dual degree programme to be offered shall also conform to the nomenclature and duration of the degrees as specified under the UGC Act, 1956.
- The collaborating higher education institutions shall ensure that the credits earned by the students shall not be from overlapping course contents/curriculum.

**What are the merits of this measure?**

- Qualifying Indian institutions will now be free to collaborate with foreign universities
- For students the cost of education with international exposure would

	<p>come down.</p> <ul style="list-style-type: none"> <li>• Institutions that are committed to academic excellence will provide the students an opportunity for advanced learning with global expertise.</li> <li>• Private autonomous colleges and deemed universities are most likely to utilise this opportunity to enter into agreements for twinning or dual / joining degree programmes with foreign institutions, flaunting them in their brochures to attract students.</li> <li>• The UGC may have to monitor the quality of academic delivery in such programmes.</li> </ul> <p><b>Connecting the dots:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">What's new in Higher Education in India</a></li> <li>• <a href="#">New Education policy 2020</a></li> <li>• <a href="#">NEP: Higher Education Institutions and Board Exams</a></li> <li>• <a href="#">Higher Education in Regional Languages</a></li> </ul>
<b>Arunachal-Assam border dispute</b>	<p><b>Context:</b> After the recent progress made in <a href="#">Assam-Meghalaya border dispute</a>, Arunachal Pradesh Chief Minister Pema Khandu and his Assam counterpart Himanta Biswa Sarma decided to form district-level committees for settling their inter-state boundary disputes.</p> <ul style="list-style-type: none"> <li>• This has set the ball rolling for the two States to address the issue on the basis of the “fifty-fifty” or “give-and-take” model Assam and Meghalaya followed for closure of the disputes in six of its 12 troublesome sectors.</li> </ul> <p><b>Why does Arunachal Pradesh have a boundary dispute with Assam?</b></p> <ul style="list-style-type: none"> <li>• Assam has had boundary disputes with all the north-eastern States that were carved out of it.</li> <li>• While Nagaland became a State in 1963, Meghalaya first became an Autonomous State in 1970 and a full-fledged State in 1972.</li> <li>• Arunachal Pradesh and Mizoram were separated from Assam as Union Territories in 1972 and as States in 1987.</li> <li>• None of the new States accepted the “constitutional boundary” that they said was dictated by the partisan administration of undivided Assam <b>without consulting the tribal stakeholders</b>.</li> <li>• They also claimed that the disputed areas <b>were traditionally under the control of tribal chieftains</b> before Assam, post-India’s independence, inherited the “imaginary boundaries” drawn during British rule.</li> <li>• The issue with Arunachal Pradesh has more to do with a 1951 report prepared by a sub-committee headed by Assam’s first Chief Minister, Gopinath Bordoloi.</li> </ul> <p><b>What is the genesis of the dispute?</b></p> <ul style="list-style-type: none"> <li>• Arunachal Pradesh and Assam have disputes at about 1,200 points along their 804 km boundary.</li> <li>• The disputes cropped up in the 1970s and intensified in the 1990s with frequent flare-ups along the border.</li> <li>• However, the issue dates back to 1873 when the British government introduced the <b>inner-line regulation</b> vaguely separating the plains from the frontier hills that were later designated as the North-East Frontier Tracts in 1915.</li> <li>• This area became the <b>North-East Frontier Agency (NEFA) in 1954</b>, three</li> </ul>

years after a notification based on the 1951 report saw 3,648 sq. km of the “plain” area of Balipara and Sadiya foothills being transferred to the Darrang and Lakhimpur districts of Assam.

- Arunachal Pradesh has been celebrating its statehood on a grand scale with an eye on China since 1987, but what has been causing resentment is the inability of the people living in the transferred patches to join in the celebration.
- Leaders in Arunachal Pradesh claim the **transfer was done arbitrarily without consulting its tribes** who had customary rights over these lands.
- Their counterparts in Assam say the 1951 demarcation is constitutional and legal.

#### **Did the two States try settling the boundary dispute earlier?**

- There were several efforts to demarcate the boundary between Assam and NEFA/Arunachal Pradesh between 1971 and 1974.
- To end the stalemate, a high-powered tripartite committee involving the Centre and the two States was formed in April 1979 to delineate the boundary based on Survey of India maps.
- About 489 km of the inter-state boundary north of the Brahmaputra River was demarcated by 1984, but Arunachal Pradesh did not accept the recommendations and staked claim to much of the areas transferred in 1951.
- Assam objected and approached the Supreme Court in 1989, accusing Arunachal Pradesh of “encroachment”.
- The apex court appointed a local boundary commission in 2006 headed by one of its retired judges.
- In its September 2014 report, this commission recommended that Arunachal Pradesh should get back some of the areas transferred in 1951 besides advising both the States to find a middle path through discussions. This did not work out.

#### **What are the chances of a solution emerging this time?**

- The Assam-Meghalaya boundary agreement has raised hopes of the Assam-Arunachal boundary dispute being resolved, especially with the Centre pushing the north-eastern States to end their territorial issues once and for all by August 15, 2022, when the country celebrates 75 years of independence.
- Moreover, there is a general belief that the region’s sister-States are in a better position to fast-track the resolution since they are ruled by the Bharatiya Janata Party with the **same political dispensation** at the Centre.
- Following the model adopted in the exercise to resolve the dispute with Meghalaya, Assam and Arunachal Pradesh have agreed to **form district-level committees** that will be tasked with **undertaking joint surveys** in the disputed sectors.
- The intention is find tangible solutions to the long-pending issue based on
  - historical perspective,
  - ethnicity



	<ul style="list-style-type: none"> <li>○ contiguity</li> <li>○ people's will</li> <li>○ administrative convenience of both the States.</li> <li>• The two States have decided to form 12 such committees involving the districts sharing the boundary. Assam has eight districts touching the boundary with Arunachal Pradesh, which has 12 such districts.</li> </ul> <p><b>Connecting the dots</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Assam-Meghalaya Border dispute</a> resolution</li> <li>• <a href="#">Assam-Mizoram Border dispute</a></li> <li>• <a href="#">Naga issue</a></li> </ul>
<b>Laws on Tapping Phone</b>	<p><b>Context:</b> Sanjay Raut, Maharashtra political leader has accused the Centre of protecting IPS officer Rashmi Shukla, who is under probe by Maharashtra Police for tapping the phones of political leaders in 2019.</p> <p><b>How are phones tapped in India?</b></p> <ul style="list-style-type: none"> <li>• In the era of fixed-line phones, mechanical exchanges would link circuits together to route the audio signal from the call.</li> <li>• When exchanges went digital, tapping was done through a computer.</li> <li>• Today, when most conversations happen through mobile phones, authorities make a request to the service provider, which is bound by law to record the conversations on the given number and provide these in real time through a connected computer</li> </ul> <p><b>Who all can tap phones in India?</b></p> <ul style="list-style-type: none"> <li>• In the states, police have the powers to tap phones.</li> <li>• At the Centre, 10 agencies are authorised to do so: <ul style="list-style-type: none"> <li>○ Intelligence Bureau (IB)</li> <li>○ Central Bureau of Investigation (CBI)</li> <li>○ Enforcement Directorate (ED)</li> <li>○ Narcotics Control Bureau (NCB)</li> <li>○ Central Board of Direct Taxes (CBDT)</li> <li>○ Directorate of Revenue Intelligence</li> <li>○ National Investigation Agency (NIA)</li> <li>○ Research &amp; Analysis Wing (R&amp;AW)</li> <li>○ Directorate of Signal Intelligence</li> <li>○ Delhi Police Commissioner.</li> </ul> </li> <li>• Tapping by any other agency would be considered illegal.</li> </ul> <p><b>What are the laws that govern tapping phones in India?</b></p> <ul style="list-style-type: none"> <li>• Phone tapping in India is governed by The Indian Telegraph Act, 1885.</li> <li>• Phone tapping can be done by the Centre or States if they are satisfied it is necessary in the interest of <ul style="list-style-type: none"> <li>○ Public safety</li> <li>○ Sovereignty and integrity of India</li> <li>○ Security of the State</li> <li>○ Friendly relations with foreign States</li> <li>○ Public order</li> <li>○ Preventing incitement to the commission of an offence</li> </ul> </li> <li>• An exception has been given for the press.</li> <li>• <b>Situation of phone tapping:</b> On the occurrence of any public emergency,</li> </ul>

	<p>or in the interest of the public safety</p> <ul style="list-style-type: none"> <li>• <b>The competent authority</b> (Union Home Secretary or State Home Secretary) must <b>record reasons for tapping in writing</b>. <ul style="list-style-type: none"> <li>◦ In unavoidable circumstances, such an order may be issued by an officer, not below the rank of a Joint Secretary to the Government of India, who has been authorised by the Union Home Secretary, or the State Home Secretary.</li> </ul> </li> <li>• Rule 419A of the Indian Telegraph (Amendment) Rules, 2007 talks about the authorising orders that has to be <b>conveyed to the service provider in writing</b>.</li> </ul> <p><b>What are the checks to prevent misuse?</b></p> <ul style="list-style-type: none"> <li>• <b>Last Resort:</b> Interception must be ordered only if there is no other way of getting the information.</li> <li>• <b>Cap on Duration:</b> The directions for interception remain in force, unless revoked, for a period not exceeding 60 days. They may be renewed, but not beyond a total of 180 days.</li> <li>• <b>Review Committee</b>– Any order issued by the competent authority has to contain reasons, and a copy is to be forwarded to a review committee within seven working days.</li> <li>• When the Review Committee is of the opinion that the directions are not in accordance with the provisions, it may set aside the directions and orders for destruction of the copies of the intercepted messages (within 6 months).</li> <li>• <b>Accountability:</b> Directions for interception are to specify the name and designation of the officer or the authority to whom the intercepted call is to be disclosed,</li> <li>• <b>Unauthorised interception</b>– In case of unauthorised interception, the service provider may be fined or even lose its licence.</li> </ul> <p><b>Connecting the dots:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Surveillance Laws in India</a></li> <li>• <a href="#">Shreya Singhal Judgement</a></li> <li>• <a href="#">New Social Media Code</a></li> </ul>
<p><b>Federalism: Revenue Share from Airports</b></p>	<p><b>Context:</b> Earlier this month, the Tamil Nadu government issued a policy note which stated that the State government should claim compensation from the Centre in case of privatization of an airport or transfer of its assets to a third party.</p> <ul style="list-style-type: none"> <li>• Coming out in support of Tamil Nadu, Chhattisgarh and Jharkhand followed suit and claimed a stake in revenue share from the privatisation of airports.</li> </ul> <p><b>How many airports have been privatized?</b></p> <ul style="list-style-type: none"> <li>• Privatization of airports in India first began in 2003 after the government approved a proposal to upgrade Mumbai and Delhi in a public-private partnership (PPP) model. <ul style="list-style-type: none"> <li>◦ The United Progressive Alliance (UPA) government also proposed the privatisation of a few airports, but couldn't implement it.</li> </ul> </li> <li>• The proposal was then taken up by Prime Minister Narendra Modi. In 2019, Lucknow, Ahmedabad, Jaipur, Mangaluru, Thiruvananthapuram,</li> </ul>

and Guwahati airports were leased through the PPP model.

- In 2021, the Centre unveiled its plan to further **monetize 25 airports** managed by the Airports Authority of India (AAI) over five years under the [National Monetisation Pipeline \(NMP\)](#).

#### **What is Tamil Nadu proposing?**

- Under NMP, the Centre has earmarked four airports – Chennai, Coimbatore, Madurai, Tiruchirappalli (Trichy)- for privatisation in Tamil Nadu.
- Tamil Nadu government said as per the decision taken in 2007, to construct new airports/ expansion of airports, it is acquiring lands and handing over the same free of cost, without any burden to AAI.
- Meanwhile, AAI has now requested the State to acquire 64.57 acres of land for Chennai airport, which has led to the present policy stance by Tamil Nadu. In the present projects, the land cost forms the major share of the overall project cost.
- Tamil Nadu government states that AAI is actively pursuing the policy of privatisation of airports. In the event the state government acquires and transfers the lands to the AAI free of cost and the AAI or the Union Government transfer the assets to a third party, the value realised/revenue accrued thereby, must be proportionately shared with the State government
- The value of land, at an appropriate stage, should be converted into equity of the State government in the airport's special purpose vehicle or an appropriate revenue sharing arrangement should be arrived at before the airport is transferred to a private party.
- The Tamil Nadu government said the policy decision was taken considering the State's investment in land assets before the transfer to AAI.

#### **Why are Chhattisgarh and Jharkhand backing Tamil Nadu?**

- The non-BJP ruled States of Chhattisgarh and Jharkhand have also demanded a share of the revenue from privatised airports.
- Chhattisgarh has said when the Centre and State come together for an earning project, the government's capital is present as a shareholder in terms of the land.
- So long as it is in the government sector, Union government would be making some revenue and there would be something spilling over to the State government and there would be a benefit to the public, so that is fine.
- However, when Union government is selling it to a third entity which is a private party, then it is selling the assets of the company, which include the land also. So, the State government should be given the value of the land.
- Jharkhand also backed the proposal. "Land belongs to the State. When it is under the central government, states have no issues and give land, water and other resources. But if the Centre is handing it over to private parties, revenue should be shared with the State government.

#### **Conclusion**

- The Ministry of Civil Aviation is yet to officially comment on the matter.

Delaying the policy announcement will lead to further strains in Centre-State relations.

- A policy should be framed in this regard for all the States, as it is considered as a challenge to the fiscal federalism of the country.

#### Connecting the dots:

- [Federalism and India's Human Capital](#)
- [Selection of Vice-Chancellor](#)
- [Cooperative and Competitive Federalism](#)
- [Taxation and Federalism](#)
- [Upcoming Crisis in Federalism](#)
- [Fresh Stirrings on Federalism as a New Politics](#)

### Fuel Friction between States vs Centre

**Context:** The Centre and the states are at loggerheads over taxes and duties on petrol and diesel.

#### What is the issue?

- - As fuel prices soared in November 2021, the Centre, for the first time in over three years, cut central excise duties on petrol by Rs 5 per litre and diesel by Rs 10 per litre.
  - Along with the Centre, 21 states then cut VAT in the range of Rs 1.80-10 per litre for petrol and Rs 2-7 per litre for diesel.
  - The revenue loss to states due to this is estimated at 0.08% of GDP, as per the RBI's State Finances report for 2021-22
  - But the relief these moves provided was outweighed by a **series of 14 price hikes in 16 days**, following the lifting of a 137-day freeze **after state elections in March**.
  - While the Centre feels the states are not reducing VAT in line with the Centre's cut in excise duty, the states have expressed concerns over their fiscal cushion, especially with the GST compensation regime due to end in June 2022.



#### What is the importance of fuel taxes?

- Excise duty on fuel makes up about 18.4% of the Centre's gross tax revenues.
- Petroleum and alcohol, on an average, account for 25-35% of states' own tax revenue, as per the RBI's Study of Budgets 2020-21.
- Of the revenue receipts of states, central tax transfers comprise 25-29%, and own tax revenues 45-50%.
- During April-December 2021, taxes on crude oil and petroleum products had yielded **Rs 3.10 lakh crore to the central** exchequer, including Rs 2.63 lakh crore as excise duty, and Rs 11,661 crore as cess on crude.
- For the same period, Rs 2.07 lakh crore accrued to the states' exchequer, of which Rs 1.89 lakh crore was through VAT.

- In 2020-21, the total central excise duty (including cesses) collected from petrol and diesel was Rs 3.72 lakh crore.
- The total tax **devolved to state governments** from the corpus collected under the central excise duty was Rs 19,972 crore.
- Central and state taxes currently account for about 43% and 37% of the retail price of petrol and diesel respectively in Delhi.

#### **Why States are reluctant to centre's call to cut taxes?**

- The levies on fuel and liquor have also become an important source of revenue for states as other indirect tax revenue is routed through the GST regime.
- The switch to GST has severely curtailed the **states' flexibility to adjust revenues** according to the situation. So at the moment, the only components which they can adjust are the fuel tax and excise duty on liquor. This is why states are not willing to accept interference from the Centre on these taxes.

#### **How fuel is taxed and shared?**

- States apply an ad valorem VAT or sales tax on the base price, freight charges, excise duty and dealer commission on petrol and diesel. Therefore, state collections also rise as the Centre hikes excise duties.
- Prior to the cut in excise duties on November 4, the Centre had increased excise duties by a total of Rs 13 per litre on petrol and Rs 16 per litre on diesel compared to pre-pandemic levels.
- Delhi imposes 19.4% VAT on petrol while Karnataka levies a 25.9% sales tax on petrol and 14.34% on diesel.
- Certain other states impose an ad valorem tax in addition to a flat tax per litre. Andhra Pradesh, for instance, levies Rs 4 per litre VAT and Rs 1 per litre road development cess on autofuels in addition to VAT (31% on petrol; 22.5% on diesel).
- While state VAT collections have risen along with higher fuel prices and previous hikes in excise duties, the **states' share of excise duties on fuel was reduced** in the FY2022 Budget.
  - It cut the Basic Excise Duty (BED) on petrol and diesel by Rs 1.6 and Rs 3 per litre respectively, cut the special additional excise duty on both by Rs 1 per litre, and introduced an Agriculture Infrastructure and Development Cess (AIDC) of Rs 2.5 per litre on petrol and Rs 4 on diesel.
- While reducing the states' share, this did not impact pump prices since collections from **cesses are not part of the shareable pool**.
- Every rupee hike in excise duty roughly yields Rs 13,000-14,000 crore annually, conditional on global prices and consumption levels.

#### **What has been the trend in oil prices?**

- Ordinarily, the prices of petrol and diesel are revised daily in line with a 15-day rolling average of benchmark prices.
- However, OMCs had held prices constant starting from the excise cut on November 4, until the end of elections in five states in March.
- Since the revisions began in March, OMCs have hiked petrol prices by Rs 12 per litre and diesel prices by Rs 10 per litre.
  - The price of LPG too has increased: a 15 kg cylinder now costs Rs



	<p>949.50 (up Rs 50) in Delhi.</p> <ul style="list-style-type: none"> <li>The price of Brent crude has increased by about \$25.53 per barrel since November 4 to \$106.48 per barrel. India imports about 85% of its crude oil requirements.</li> </ul> <p><b>Connecting the dots:</b></p> <ul style="list-style-type: none"> <li><a href="#">Cess Pool: On CAG report on GST</a></li> <li><a href="#">Cooperative and Competitive Federalism</a></li> <li><a href="#">Taxation and Federalism</a></li> <li><a href="#">Upcoming Crisis in Federalism</a></li> <li><a href="#">Fresh Stirrings on Federalism as a New Politics</a></li> </ul>
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## ECONOMY

<p><b>NFC technology for instant payments</b></p>	<p><b>Context:</b> Google Pay has recently launched a new feature in India, 'Tap to pay for UPI', in collaboration with Pine Labs.</p> <ul style="list-style-type: none"> <li>The feature makes use of Near Field Communication (NFC) technology.</li> <li>Till now, Tap to Pay was only available for cards.</li> </ul> <p><b>What is NFC and how does it work?</b></p> <ul style="list-style-type: none"> <li>NFC is a short-range wireless connectivity technology that allows NFC-enabled devices to communicate with each other and transfer information quickly and easily with a single touch — whether to pay bills, exchange business cards, download coupons, or share a document.</li> <li>NFC transmits data <b>through electromagnetic radio fields</b>, to enable communication between two devices.</li> <li>Both devices <b>must contain NFC chips</b>, as transactions take place within a <b>very short distance</b>.</li> <li>NFC-enabled devices must be either physically touching or within a few centimetres from each other for data transfer to occur.</li> </ul> <p><b>How will this technology work with the recently launched feature, 'Tap to pay for UPI'?</b></p> <ul style="list-style-type: none"> <li>Google Pay has been the first among UPI apps to bring the Tap to Pay feature working on POS terminals.</li> <li>It will allow users with UPI accounts configured on Google Pay to make payments just by tapping their NFC-enabled Android smartphones on any Pine Labs Android POS terminal.</li> <li>Once users tap their phones on the POS terminal, it will automatically open the Google pay app with the payment amount pre-filled.</li> <li>Users can then verify the amount and merchant name and authenticate the payment, using their UPI PIN. They will be notified once the payment is successful.</li> <li>The <b>process is much faster</b> compared to scanning a QR code or entering the UPI-linked mobile number which has been the conventional way till now.</li> </ul> <p><b>Are other companies using NFC tech for payments using smartphones?</b></p> <ul style="list-style-type: none"> <li>In February 2022, Apple introduced Tap to Pay on the iPhone. It will allow merchants across the U.S. to use their iPhones to accept Apple</li> </ul>
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Pay, contactless credit and debit cards, and other digital wallets through a tap to their iPhone without the need for any additional hardware or payment terminal.

- At checkout, the customer just needs to hold their iPhone or Apple Watch to pay with Apple Pay, their contactless credit or debit card, or other digital wallet near the merchant's iPhone to complete the payment using NFC technology, Apple said in a release earlier.

**What are the other applications of NFC technology?**

- It is used in contactless banking cards to perform money transactions or to generate contact-less tickets for public transport.
- Contactless cards and readers use NFC in several applications from securing networks and buildings to monitoring inventory and sales, preventing auto theft, keeping tabs on library books, and running unmanned toll booths, according to investopedia.
- NFC is behind the cards that we wave over card readers in subway turnstiles and on buses to check tickets.
- It is present in speakers, household appliances, and other electronic devices that we monitor and control through our smartphones.
- It also has an application in healthcare, to monitor patient stats through NFC-enabled wristbands. NFC is used in wireless charging too.

**How safe is this technology?**

- NFC technology is designed for an operation between devices within a few centimetres from each other.
- This makes it difficult for attackers to record the communication between the devices compared to other wireless technologies which have a working distance of several metres.
- The user of the NFC-enabled device determines by the touch gesture which entity the NFC communication should take place with, making it more difficult for the attacker to get connected.
- The security level of the NFC communication is by default higher compared to other wireless communication protocols.
- The NFC Forum has also added Peer to Peer communication which is a mechanism to cipher all exchanged data to avoid external interpretation of recorded communication.
- Since the receiving device reads your data the instant you send it, NFCs also reduce the chance of human error.

**Where does it stand in comparison to other wireless technologies?**

- There are other wireless technologies available which are replacing cable-based connections.
- The **IrDa technology** is a short range (a few metres) connection based on the exchange of data over **infrared light** where the two communication devices must be positioned within a line of sight.
- Today, this technology is mainly used for remote control devices.
- For larger data communication with computer devices this technology was replaced by Bluetooth or WiFi connections.
- However, for these technologies' receiver devices need their own power supply due to the larger working distance. Therefore, the receiving

	<p>device cannot be powered by the radiofrequency (RF) field like in NFC, the NFC forum highlighted. A</p> <ul style="list-style-type: none"> <li>• nother consequence of the larger working distance is the need for the user to configure their device and to pair them together for communication. Connection cannot be initiated by a simple touch gesture like in NFC.</li> </ul> <p><b>Connecting the dots:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">UPI 123</a></li> <li>• <a href="#">E-RUPI</a></li> <li>• <a href="#">E-RUPI &amp; Governance</a></li> </ul>
<b>HDFC Ltd.-HDFC Bank merger</b>	<p><b>Context:</b> Mortgage lender (housing finance) HDFC Ltd. and India's largest private sector bank HDFC Bank has announced a mega merger.</p> <ul style="list-style-type: none"> <li>• The amalgamation will create a financial behemoth that is expected to better tap the rising demand for credit.</li> </ul> <p><b>What are the terms of the merger?</b></p> <ul style="list-style-type: none"> <li>• The two companies have announced that their respective boards have approved the amalgamation.</li> <li>• Subsequently, the merger has to go through a series of regulatory approvals.</li> <li>• It also has to get approval from shareholders of both companies.</li> <li>• It is an all-share deal, so there's no cash transaction involved.</li> <li>• The terms of the share swap are such that shareholders of HDFC Ltd. will receive 42 shares of HDFC Bank for every 25 shares they hold in HDFC Ltd.</li> <li>• Post-merger HDFC Ltd. will no longer be a separate mortgage lender, it will get folded into the bank.</li> <li>• The bank, which is the offspring of HDFC Ltd. and the older legacy entity, is the one which is acquiring the mortgage lender.</li> <li>• With bank's acquisition of the mortgage lender, it also acquires all its subsidiaries, which includes a general insurance company, a life insurance company, and an asset management company.</li> <li>• As both HDFC Ltd. and HDFC Bank have similar conservative lending culture &amp; are customer-friendly, culturally, there wouldn't be a big challenge with integration.</li> <li>• The integration part of it would only be a matter of ensuring that everything is seamless and smooth, getting the books mapped on to each other, the IT systems merging with each other and so on.</li> </ul> <p><b>What happens to existing customers and employees?</b></p> <ul style="list-style-type: none"> <li>• As far as customers are concerned, HDFC Ltd.'s customers will become the bank's customers as well.</li> <li>• As for employees, HDFC Bank is planning to absorb and retain all the employees.</li> <li>• Neither of the entities are very heavy on employee numbers and have been fairly conservative in their employee sizes.</li> </ul> <p><b>What is the rationale for it?</b></p> <ul style="list-style-type: none"> <li>• In recent years, the evolution of the regulatory framework for the NBFC (non-banking financial company) industry has been gradually moving</li> </ul>

closer, to harmonise with the banking sector's regulatory framework.

- Earlier, NBFCs had a fairly different and a far more loose sort of framework for lending and deposits. This led to issues with some NBFCs struggling and going under or being taken over by others.
- The Reserve Bank of India has over the years been tightening the regulatory structures for the NBFC industry.
- Therefore, a large NBFC like HDFC Ltd. Merging with a bank makes sense because the banks are much more tightly regulated and have far more oversight of the RBI.
- As Basel III norms for capital adequacy are in place, the NPA (non-performing asset) book is very closely monitored. Even from a regulatory perspective, the RBI might to see this merger going through because it wants NBFCs to be tightly regulated.

**What is in it for HDFC Ltd. and HDFC Bank?**

- Post-merger, the mortgage lender, HDFC Ltd., gets access to HDFC Bank's CASA (current and savings accounts) deposits, which are lower cost funds.
- For the mortgage lending business, the capital cost will come down. As the capital cost comes down, automatically it will have the ability to lend at a finer rate in a highly competitive mortgage market.
- For HDFC Bank, every home loan customer can be tapped to become a bank customer.
- For HDFC Bank, it's about getting access to a large base of customers for cross-selling purposes. For HDFC Ltd., or the mortgage lending business, it's primarily about the lower cost of capital.

**Does a larger balance sheet help in terms of the NPA situation?**

- As far as HDFC Bank is concerned, bad loans are not a major pressure point because it has been a conservative lender compared to competitors. They have always shied away from big ticket lending to corporates. Most of their lending is to retail borrowers.
- As for HDFC Ltd., there might have been some pressure on home loans during the pandemic but based on what they have disclosed so far, it is not a major pressure point either. Also, the merger with the bank sort of helps alleviate any upcoming pressure.

**Will the lending pattern change?**

- Infrastructure lending has been a serious problem in India.
- With the government making it clear that there is need for funding the infrastructure segment, we will have to wait and see whether the merged entity has the expertise to lend to infrastructure projects, which is a risky proposition.
- They do have a large volume of funds, and if they see specific opportunities with good entrepreneurs and good government projects, they may go for it.

**What will be the impact of this deal?**

- It's possible that we might see more NBFCs seeking to merge with banks. There is already talk of the number of banks coming down.
- So in some ways, HDFC Bank's merger with HDFC Ltd. may be a

	<p>precursor to what is going to happen in the state-run banking space, where the government has said it is going to reduce the number of public sector banks.</p> <p><b>Connecting the dots:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Merger of banks</a></li> <li>• <a href="#">Privatisation of Banks</a></li> </ul>
<p><b>Millet: The super food for combating food and water security</b></p>	<p><b>Context:</b> The United Nations (UN) has declared 2023 as ‘the international year of millets’ and has called all stakeholders to provide support to draw policy attention to the nutritional and health benefits of millet consumption, and their suitability for cultivation under adverse and changing climatic conditions. Millets have the potential to help achieve the sustainable development goals (SDGs)—mainly</p> <ul style="list-style-type: none"> <li>• SDG 2 (Zero Hunger)</li> <li>• SDG3 (Good Health and Well-being)</li> <li>• SDG 12 (Sustainable Consumption and Production)</li> <li>• SDG 13 (Climate Action).</li> </ul> <p>According to The International Crop Research Institute for the Semi-Arid Tropics (ICRISAT), more than 90 million people in Africa and Asia depend on millets in their diet. Although the global millet consumption has declined at a rate of 9 percent, the Millet Market forecast for 2022-27 shows promising trends. India dominates the global production at 41 percent, whereas the consumption has been receding over the years. On the other hand, Africa has become the largest consumer of millets at 40 percent.</p> <p><b>Growing millet has many advantages:</b></p> <ul style="list-style-type: none"> <li>• Being a rain-fed crop with minimal use of fertilisers</li> <li>• No pesticide as they are less vulnerable to insect attack</li> <li>• Seeds of millet can be stored for years making it advantageous in drought-prone areas.</li> </ul> <p><i>Millets are multipurpose:</i></p> <ul style="list-style-type: none"> <li>• They consume 70 percent less water than rice; grow in half the time of wheat; and require 40 percent less energy in processing.</li> <li>• They are one-stop solution in the wake of climate change, water scarcity, and drought conditions along with high nutritive value to provide sustainable food security.</li> <li>• Millets are an excellent source of antioxidants and help enhance capability of probiotics with potential health benefits.</li> <li>• They play a role in body immune system, a solution to tackle childhood undernutrition and iron deficiency anaemia. Evidence indicates higher nutritive value of millets as compared to other cereal crops.</li> <li>• There is ample evidence on nutritive value of millets being a good source of energy, carbohydrates, fats, proteins, soluble and insoluble fiber, antioxidants, iron, zinc, and vitamins and can help eliminate micronutrient deficiency for India and other developing nations.</li> <li>• It helps lower cholesterol, as it is rich in polyunsaturated fatty acids and omega-3 fatty acids.</li> <li>• Sustainable diets are protective of bio diversity and ecosystems with low environment impact, which contributes to food and nutrition security.</li> </ul>



Diversifying crop production by including more coarse cereals like millets can build food supply, reduce Green House Gas (GHG) emissions, and enhance climate resilience without compromising on nutritive value.

**Millets are environmentally a better option to grow**

- Millets can thrive at relatively high temperatures (thermophilic) and reproduce in limited water supply (xerophilic).
- A review indicates the positive effect of millet cultivation in the reduction of stress on environmental resources, especially in regions affected by climate change.
- Looking at the water security, millets require almost six times less water for growth (20 cm) as compared to rice that requires average rainfall of 120-140 cm.
- The maturation time for certain millets is 45-70 days, half to that of rice (120-140 days).
- Millets convert more carbon dioxide to oxygen, contributing in mitigating climate change.
- Millets can endure extremely high temperatures to drought to salinity making it a climate resilient crop.

**Restoration of ecosystems and sustainability:**

- Land degradation has been a major problem in India, causing massive economic losses year after year. Drought-tolerant crops, like millets, with low dependence on chemical inputs would put far less pressure on ecosystems.
- The inter-cropping of millets with other crops is especially beneficial because the fibrous roots of millet plants help in improving soil quality, keep water run-off in check and aid soil conservation in erosion-prone areas, thereby restoring natural ecosystems.

**Biofuel and Ethanol Blending**

- A study conducted among farmers in Madhya Pradesh showed that bio-ethanol can be created using sorghum (jowar) and pearl millet (bajra), and that this fuel could bring down carbon emissions by about half.
- Estimates also suggest that millets can deliver greater returns than maize, while using 40% less energy in processing. Millets also offer a significant cost advantage over maize as a feedstock for bio-ethanol production.

**A cultural connection:**

- The cultivation of millets is deep-rooted in Indian culture.
- Organizations like Deccan Development Society have formed women's collectives in Telangana and are promoting millets through a culture-centric approach.
- Such crop sensitization has filtered into urban settings too. In 2018, the #LetsMilletCampaign in Bengaluru saw the use of millets in dishes such as risotto and pizza by restaurateurs.

**Some concerns and way ahead**

- A large majority of the consumers in India and other countries prefer consuming paddy because of the ease of cooking and also because of

	<p>their habits. However, it is to be noted that millets have a short shelf life depending on humidity, temperature, and small market size. This calls for <b>more awareness creation drives on the nutritive values and setting up better storage facilities</b> for the crop for increasing its longevity.</p> <ul style="list-style-type: none"> <li>• Even though millets have been traditionally consumed in past decades, showing improved micronutrient intake and reduced anemia prevalence in women, of late, barriers of cost, taste, perception, and availability have led to decline in consumption of millet.</li> <li>• There is an urgent need for strengthening the entire value chain by addressing the gaps and calls for replicating scalable models across states for millet promotion in the country.</li> <li>• Incentivizing the adoption of inter-cropping with millets (two or more crops planted side by side) and providing crop insurance and support for storage facilities will foster income and food security.</li> </ul> <p>Brimming with potential, millets can act as a vital cog in the country's sustainable development wheel if backed by policies that promote their production, incentivize farmers and strengthen market linkages. It is time to unleash the potential of millets by creating awareness of the nutritional values to encourage a shift in consumer choices.</p> <p><b>Can you answer the following questions?</b></p> <ol style="list-style-type: none"> <li>1. What are millets? What are their nutritional benefits? Discuss.</li> <li>2. Can millet cultivation be a viable solution to agrarian and nutritional challenges? Examine.</li> </ol>
<p><b>Geotagging of payment system touchpoints</b></p>	<p><b>What is Geo-tagging of payment system touchpoints?</b></p> <ul style="list-style-type: none"> <li>• Geo-tagging refers to the process of adding geographical identification to a media based on the location of smartphones or GPS-enabled electronic devices.</li> <li>• Geo-tags can be applied to media such as photos, videos, websites, text messages and QR codes.</li> <li>• Recently, the Reserve Bank of India issued a framework for geo-tagging of payment system touchpoints, which simply means capturing the geographical coordinates (latitude and longitude) of various touchpoints deployed by merchants to receive payments from their customers.</li> </ul> <p><b>Why is it important?</b></p> <ul style="list-style-type: none"> <li>• Indian payments ecosystem has rapidly evolved in recent years with widespread adoption of multiple payment products and systems, including Point of Sale (PoS) terminals, Quick Response (QR) codes, Unified Payment Interface (UPI) and Aadhar-enabled Payment Service (AePS).</li> <li>• Smartphone and internet penetration has led to proliferation of digital payments in the country.</li> <li>• According to data from the National Payments Corporation of India (NPCI), UPI-led digital transactions crossed the highest-ever value of Rs 81-lakh crore with 5.42 billion transactions in FY22.</li> <li>• However, a large number of people, especially in the rural parts of the country, continue to use cash as the primary mode of transaction.</li> </ul>

	<ul style="list-style-type: none"> <li>RBI's geo-tagging framework focusses on <b>deepening digital payments</b> and providing inclusive access to all citizens, irrespective of their location or digital literacy.</li> </ul> <p><b>What does RBI guideline entail?</b></p> <ul style="list-style-type: none"> <li>The central bank has categorised 'Banking infrastructure' and 'Payment acceptance infrastructure' as two categories of physical infrastructure through which digital payment transactions are carried out.</li> <li>Banking infrastructure covers payment transactions made through bank branches, counters, ATMs and Cash Recycle Machines (CRMs), among others.</li> <li>While PoS terminals, QR codes deployed by banks / non-bank Payment System Operators (PSOs) come under payment acceptance infrastructure.</li> <li>The RBI framework mandates that banks and non-bank PSOs should maintain a registry with accurate location of all payment touchpoints across the country. T</li> <li>he registry must contain merchant-related information such as the merchant name, ID, type, category, contact details as well as location details such as address and state, district.</li> <li>Banks and non-bank PSOs must also report payment acceptance infrastructure details such as the terminal type, terminal ID, terminal address, state, district and geo-coordinates.</li> </ul> <p><b>How will it benefit banks and players in the payment ecosystem?</b></p> <ul style="list-style-type: none"> <li>By capturing the accurate location of various payment system touchpoints, banks can get <ul style="list-style-type: none"> <li>insights on regional penetration of digital payments</li> <li>monitor infrastructure density across different locations</li> <li>Identify the scope for deploying additional payment touchpoints</li> <li>Facilitate focused digital literacy programmes.</li> </ul> </li> <li>The data collected through geo-tagging will also help the central bank bring suitable policy interventions wherever required.</li> </ul> <p><b>When will it be implemented?</b></p> <ul style="list-style-type: none"> <li>All banks and non-bank PSOs are required to report information on payment system touchpoints through the RBI's Centralised Information Management System (CIMS).</li> <li>However, the central bank is yet to communicate the timeline for commencement of reporting.</li> <li>For now, the RBI has asked banks and non-bank PSOs to submit the contact details of the nodal officer for this activity by March 31, 2022.</li> </ul> <p><b>Connecting the dots:</b></p> <ul style="list-style-type: none"> <li><a href="#">UPI- Payment revolution</a></li> <li><a href="#">UPI- 123 for feature phones</a></li> <li><a href="#">E-RUPI</a></li> <li><a href="#">E-RUPI &amp; Governance</a></li> </ul>
<b>India's oil imports: Trends in diversification</b>	<p><b>Context:</b> In the pandemic year 2020-21, over 84 percent of India's petroleum product demand (crude oil and petroleum products) was met with imports.</p> <ul style="list-style-type: none"> <li>Gross petroleum imports of about 239 million tonnes (MT) of value</li> </ul>

US\$77 billion accounted for over 19 percent of India's total imports in 2020-21.

- In 2019-20, over 85 percent of petroleum product demand was met with imports.
- Gross petroleum imports of over 270 MT of value US\$119 billion accounted for 25 percent of India's total imports. This is a substantial increase compared to 2006-07, when oil imports of about 145 MT accounted for about 77 percent of consumption.

#### **India's Energy Security**

In the early 2000s, the **growing volume of crude oil imports** was seen to be associated with two key external risks for India's energy security –

1. The first was the **volume risk**, which originated from the fact that most of the global conventional oil reserves and most of India's oil imports were concentrated in the Persian Gulf. It was assumed that the **political and social volatility in the Persian Gulf** region increased the possibility of deliberate oil supply disruptions by state or non-state actors.
2. The second was the **price risk**, which was the probability of a dramatic increase in the price of oil in the international market on account of, amongst other things
  1. Instability in oil producing regions
  2. Reduction in supply on account of policies adopted in producing countries
  3. International sanctions against oil procurement from specific countries.

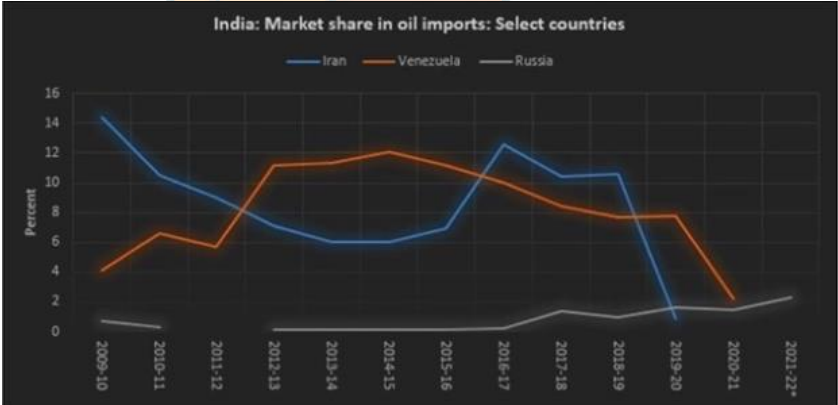
**India's Take:** Volume risk in oil supply was prioritised over the price risk and addressed with strategies such as

- Diversification of oil import basket
- Acquisition of equity oil assets around the world

#### **Recent trends in India's crude import basket**

The top oil exporter to India in 2020-21 was Iraq followed by Saudi Arabia.

- Iraq's share in India's imports increased from about 9% in 2009-10 to over 22% in 2020-21.
- Though Saudi Arabia lost its long-held position as the largest source of India's oil imports to Iraq in 2017-18, Saudi Arabia's share has remained steady between 17-18% of India's imports over a decade.
- Interestingly, the USA that was not among the top 20 oil exporters to India a decade ago, it was the 18th largest exporter in 2017-18, ninth largest in 2018-19, seventh largest in 2019-20, and fourth largest in 2020-21.
  - Apart from the fact that crude oil exports from the USA were illegal until 2015, USA was also a large net importer of crude oil.
  - With the **growth in production of shale oil**, the USA is now not only a **net exporter of crude oil but also the world's largest producer**.
  - The entry of the USA as **India's 4th largest source of oil imports** breaks the trend of Saudi Arabia, Iraq, Iran, Kuwait, the

	<p>UAE, Nigeria, and Venezuela dominating India's top five oil import sources for over two decades.</p> <ul style="list-style-type: none"> <li>Russia, the country to come under Western sanctions in 2022, is not a large source of India's oil imports but it has remained in India's long portfolio of oil importers for over a decade. In 2021-22 (April to January), Russia's share in India's oil importers was 2.3%, which put Russia among India's top 10 sources of oil imports.</li> </ul> <p><b>The Call for Diversification – Supply insecurity</b></p> <ul style="list-style-type: none"> <li><b>Supply disruptions in the Persian Gulf</b> was a high-impact event to which high-probability was attached and <b>diversification of supply sources</b> was seen as the rational response, given that <b>countries in the region account for over 60% of India's oil imports</b>.</li> <li>Though oil supply disruptions in the Persian Gulf is a high-impact event even today, the <b>probability of occurrence is not as high</b> as it was assumed to be in the era of the war against terrorism.</li> <li>More importantly '<b>demand insecurity</b>' and the <b>consequent competition amongst oil exporters to gain market share in India</b>, one of the few large growth markets for oil around the world, is influencing diversification more than supply-insecurity.</li> </ul>  <p><b>Source:</b> Ministry of Commerce &amp; Industry; * 2021-22 (April 2021 to January 2022)</p> <p><b>Conclusion</b></p> <ul style="list-style-type: none"> <li>The <b>competition for oil markets has been introduced for the first time</b> in several decades, oil exporters from the western hemisphere notably the USA and Russia, amongst the top 10 oil exporters to India.</li> <li><b>Geopolitical sanctions</b> may introduce minor short-term aberrations in India's oil import basket, but this cannot alter longer-term economic trends.</li> </ul> <p><b>Can you answer the following question?</b></p> <ol style="list-style-type: none"> <li>India needs to carefully devise strategies to diversify its oil import sources. Discuss</li> </ol>
<p><b>Cardless cash withdrawals at ATMs</b></p>	<p><b>Context:</b> India's Central bank announced cardless cash withdrawals at ATMs across the country.</p> <ul style="list-style-type: none"> <li>The feature will let consumers use Unified Payment Interface (UPI) on their smartphones to withdraw cash from ATMs.</li> <li>RBI stated that all ATMs across the country must enable this feature in</li> </ul>



their cash-dispensing machines.

**How will this system work?**

- Cardless cash withdrawals are to be authenticated via UPI.
- ATMs are expected to show an option for withdrawing cash using UPI.
- Once a user selects this option, they can input the amount to be withdrawn and a QR code will be generated on the ATM screen.
- Users will then need to scan that code via their UPI app, and enter the password to withdraw cash from the ATM.
- Until now, only fund transfers between accounts were enabled via UPI. With this option, consumers can also take cash out from ATMs without a card.

**What issues does this technology solve?**

- According to the RBI Governor, cardless cash withdrawals will **enhance security of cash withdrawal transactions**.
- Besides, it would help **prevent frauds** like card skimming and card cloning.
- Currently, only existing customers of a few banks are allowed to withdraw cash without cards, and from specific bank's ATM networks. However, the RBI's move to **allow interoperability** in cardless withdrawals will enable users to take cash from any and all ATMs.
- The RBI's move will **invite more players into the payment ecosystem** in India to innovate and solve further problems of customers.

**What is card skimming?**

- Criminals steal data from credit/ debit cards by tracking a card swiped at ATMs. They pick this information from using a skimming device that reads the card's magnetic strip. These devices are secretly installed on ATMs.
  - These devices are difficult to identify as they appear to be a legitimate part of an existing ATM, or like a regular in-store card reader. It is skilfully fitted into the payment machines.
- Once the device picks up the data, it can be used to gain unauthorised access to the user's banking records.
- The stolen information can be coded onto a new card, a process called cloning, and be used to make payments and transact with other bank accounts.
- Problematic ATMs that function intermittently, and the ones located in isolated areas are often used to install such skimming devices.
- Fraudsters also install scanning devices on point-of-sale machines. These devices stealthily scan a card before it is swiped at the payment counter at a departmental store.

**What are the limitations and challenges of the cardless cash withdrawal feature?**

- Currently, ICICI Bank, Kotak Mahindra Bank, HDFC Bank and SBI allow cardless cash withdrawals for their users. But, accessing the feature is cumbersome as it has certain **withdrawal limits**, and the **transaction is charged**.
- At the moment, it is not clear whether UPI-based cash withdrawals will

	<p>have the same restrictions and service fee inclusions.</p> <ul style="list-style-type: none"> <li>• <b>Scalability of this feature</b> might be a challenge as it has to be seen how many banks quickly roll it out to their customers.</li> <li>• In cardless withdrawal, the security vulnerability of a card is minimised, but the risk will soon transfer to a mobile-enabled feature. The mobile can now become the epicentre of transactions, making it the next target for fraudsters.</li> </ul> <p><b>What is the future of debit cards?</b></p> <ul style="list-style-type: none"> <li>• Issuing cards will not be stopped as they have several other utilities beyond cash withdrawals. They can be used at a restaurant, shop, or for payments in a foreign country.</li> <li>• A debit card is a very evolved financial product and has already gone through a lot of iterations to reach its current perfection. In its further evolution, there are new use cases for debit cards like having standing instructions or EMI payments.</li> <li>• Moreover, the debit card will continue to serve some segments of the economy which are not comfortable with pure digital payment solutions like UPI or who want to have higher transaction limits.</li> </ul> <p><b>Connecting the dots:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">UPI123: UPI for feature phone</a></li> <li>• <a href="#">E-RUPI</a></li> <li>• <a href="#">E-RUPI &amp; Governance</a></li> </ul>
<p><b>Quarter-billion people face extreme poverty in 2022 as the rich get richer: Oxfam</b></p>	<p><b>Context:</b> Over a quarter of a billion people will be pushed into poverty in 2022, according to a new report by Oxfam, a global network of charitable organisations.</p> <ul style="list-style-type: none"> <li>• The worldwide financial crisis will be mainly driven by the <b>price inflation due to Russia's invasion of Ukraine</b> and <b>economic crisis caused by the COVID-19 pandemic</b>, it said.</li> <li>• The convergence of these two events is also <b>widening the gap between the rich and the poor</b> at an unprecedented rate: Nearly half of the global population (3.3 billion) are living below the poverty line, while a new person becomes a billionaire every 26 hours since the beginning of the pandemic.</li> </ul> <p><i>The Oxfam estimates are based on World Bank projections and earlier research by the World Bank and Center for Global Development. The report was released April 12, 2022, ahead of the spring meetings of World Bank and the International Monetary Fund.</i></p> <p><b>Insights from the Report</b></p> <ul style="list-style-type: none"> <li>• The combined impact of COVID-19, inequality and food price hikes could result in 263 million more people living in extreme poverty this year, resulting in a total of 860 million people living below the \$1.90 (Rs 144.7) a day extreme poverty line. This would be an extraordinarily damaging rise that <b>reverses decades of progress</b> in the fight against poverty.</li> <li>• The pandemic resulted in people losing their jobs and savings, while they are faced with a <b>greater food price inflation</b> than the 2011 crisis. In comparison, billionaires continue to make money, as they exploit an</li> </ul>

	<p>“inflationary environment to boost profits at consumers’ expense”, the report said.</p> <ul style="list-style-type: none"> <li>• Oil companies are making record profits with soaring energy prices and margins while investors expect agriculture companies to rapidly become more profitable as food prices spiral.</li> <li>• The fortunes of 10 of the richest people in the world have doubled during the pandemic, the Oxfam analysis showed. At the same time, some 2,744 small billionaires have recorded an unprecedented rise in fortunes compared to the last 14 years, the report said. These 14 years were already a bonanza for billionaire wealth, it added.</li> <li>• The increasing poverty is not spread evenly across geographies, according to the data. Food costs account for 40 per cent of consumer spending in sub-Saharan African nations, while the same figure is half for those living in advanced economies.</li> <li>• Developing nations, which were already faced with a worrying fiscal condition, are now witnessing debt levels unseen so far. An estimated debt servicing amounting to \$43 billion in 2022 for the world’s poorest countries is needed.</li> </ul> <p><b>The Way Forward</b></p> <p>The international body urged world leaders attending the upcoming meeting to follow a five-pronged economic rescue plan to evade what is sure to be a catastrophic:</p> <ol style="list-style-type: none"> <li>1. First, cuts in value-added taxes on staple food and cash transfers to support income should be implemented to protect the poorest from inflation.</li> <li>2. Second, World Bank and IMF should cancel debt payments for 2022 and 2023 for low and lower-middle-income countries.</li> <li>3. Third, a 2 per cent tax on personal wealth above \$5 million, 3 per cent for wealth above \$50 million and 5 per cent for wealth above \$1 billion should be imposed. This could amount to \$2.52 trillion — enough to save 2.3 billion people from poverty.</li> <li>4. Fourth, Special Drawing Rights under the IMF should be reallocated to ensure it is debt- and conditionality-free.</li> <li>5. Fifth, emergency support provided to lower-income countries should be increased.</li> </ol> <p><b>Can you answer the following question?</b></p> <ol style="list-style-type: none"> <li>1. The basket of basic necessities of the poor has expanded in the last two decades. Do you agree? Do you think the current welfare schemes reflect this transformation? Critically examine.</li> <li>2. What are the key challenges in using digital solutions to address poverty and associated issues? Illustrate.</li> </ol>
<p><b>Economics of Oil Bonds</b></p>	<p>Context: Over the last one year, as retail prices of petrol, diesel and other petroleum products have surged there is mounting pressure on government to reduce taxes.</p> <ul style="list-style-type: none"> <li>• As of now, taxes account for 50% of the total retail price for a litre of petrol, and 44% for a litre of diesel.</li> <li>• Union Government has sought to counter such criticism by claiming that</li> </ul>

the current government cannot bring down taxes (and, as a consequence, prices) because it has to pay for the oil bonds issued by the previous government.

**What are oil bonds? Why were they issued?**

- When fuel prices were too high for domestic consumers, governments in the past often asked oil marketing companies (OMCs) to avoid charging consumers the full price.
- But if oil companies don't get paid, they would become unprofitable. To address this, the government said it would pay the difference.
- But again, if the government paid that amount in cash, it would have been pointless, because then the government would have had to tax the same people to collect the money to pay the OMCs.
- This is where oil bonds come in. An oil bond is a promissory note issued by the government to the OMCs, in lieu of cash that the government would have given them so that these companies don't charge the public the full price of fuel.
- An oil bond says the government will pay the oil marketing company the sum of, say, Rs 1,000 crore in 10 years. And to compensate the OMC for not having this money straightaway, the government will pay it, say, 8% (or Rs 80 crore) each year until the bond matures.
- By issuing such bonds, a government can defer the full payment by 5 or 10 or 20 years, and in the interim just pay the interest costs.
- Therefore, through Oil Bonds the government of the day is able to protect/ subsidise the consumers without either ruining the profitability of the OMC or running a huge budget deficit itself.
- Oil bonds were issued by several governments in the past.

**Is the UPA-era oil bonds large that is constraining current government?**

- In 2014, there were bonds worth Rs 1.34 lakh crore that had to be paid between 2015 and 2026.
- Between 2014 and 2022, the BJP government has had to spend a total of Rs 93,686 crore towards interest as well as the principal.
- There are three ways to answer the question as to whether the amount is large enough to restrict a reduction in taxes.
- The first is to observe that total payout was just 7% of the total revenues in 2014-15. As the years progressed, this percentage has come down because taxes generated from this sector have soared.
- The second is to look at the total revenue earned by the government (both Centre and states) between 2014 and 2022 from taxing petroleum products. This amount is more than Rs 43 lakh crore and the total payout was just 2.2% of it.
- The third way is to note that the total amount of revenue earned by the Centre from just one kind of tax— excise tax — in just — 2014-15 — was more than Rs 99, 000 crore.
- In other words, while the NDA government has had to pay for oil bonds, the payout is not big compared to revenues earned in this sector.

**Still, isn't it a bad idea to issue such bonds?**

- Former PM Manmohan Singh noted that issuing bonds just pushed the

	<p>liability to a future generation.</p> <ul style="list-style-type: none"> <li>• But to a great extent, most of the government's borrowing is in the form of bonds.</li> <li>• Further, in a relatively poor country like India, all governments are forced to resort to the use of bonds of some kind.</li> <li>• Even the current NDA government has issued bonds worth Rs 2.79 lakh crore (twice the amount of oil bonds) to recapitalise public sector banks. These bonds will be paid by governments till 2036.</li> </ul> <p><b>Connecting the dots:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Petrol, diesel under GST purview</a></li> <li>• <a href="#">Rising Fuel Prices</a></li> <li>• <a href="#">Rising Natural Gas Price</a></li> <li>• <a href="#">India's Coal Crisis</a></li> </ul>
<b>India and Wheat Exports</b>	<p><b>Context:</b> Russia's invasion of Ukraine and the subsequent western sanctions on Russia have affected wheat exports from the Black Sea region and impacted food security in several countries, especially in Africa and West Asia.</p> <ul style="list-style-type: none"> <li>• The disruption to global wheat supplies in turn has opened opportunities for India's grain exporters given the domestic surplus availability of the cereal.</li> <li>• Egypt, one of the largest importers of wheat, had agreed to source the cereal from India.</li> </ul> <p><b>What is the status of India's wheat exports?</b></p> <ul style="list-style-type: none"> <li>• Globally, Russia is the market leader for wheat exports (almost 15% share) and Ukraine is also a major producer. Exports from these two countries have been hit by the war and sanctions.</li> <li>• India expects to produce <b>112 million tonnes of wheat</b> in the current season.</li> <li>• The government requires 24-26 million tonnes a year for its food security programmes. With surplus wheat production, opportunities have opened up for exports.</li> <li>• Wheat exports in the 2021-2022 financial year were estimated at 7.85 million tonnes, a <b>quadrupling from 2.1 million tonnes</b> in the previous year.</li> <li>• More countries are turning to India because of the competitive price, acceptable quality, availability of surplus wheat and geopolitical reasons.</li> <li>• While the existing importers are buying more, new markets have emerged for Indian wheat. Exports this fiscal are expected to be almost 10 million tonnes worth \$3 billion.</li> </ul> <p><b>Which new markets are expected to buy from India?</b></p> <ul style="list-style-type: none"> <li>• The different grades of wheat produced in India are of the milling quality.</li> <li>• So, apart from Egypt and Jordan, countries in East Africa are also likely to source the foodgrain from India.</li> <li>• India has sent out dossiers to over 20 countries and talks are on at different levels with all these countries.</li> <li>• The aim is to reach early resolution on the Pest Risk Analysis by each of</li> </ul>



	<p>these countries so that exports can take off.</p> <ul style="list-style-type: none"> <li>The Agricultural and Processed Food Products Export Development Authority (APEDA) and Ministry of Agriculture are also sending delegations to several countries to resolve market issues, if any.</li> </ul> <p><b>What is being done to facilitate the exports?</b></p> <ul style="list-style-type: none"> <li>The Commerce Ministry has put in place an internal mechanism to facilitate it and get the paperwork ready for the related sanitary and phytosanitary applications to help facilitate shipments.</li> <li>Wheat is going in full vessel loads and needs to be transported to the ports from the growing areas. The railways is providing rakes on priority to move the wheat.</li> <li>Therefore, railways, ports, and testing laboratories are all geared up to meet the requirements.</li> </ul> <p><b>What norms are buyer countries using to approve Indian wheat?</b></p> <ul style="list-style-type: none"> <li>Countries that have not previously imported wheat from India insist on the <b>completion of the Pest Risk Analysis</b> to provide market access.</li> <li>There are also other different standards that the buyers share with their sellers here.</li> <li>While, at present, Indian suppliers are able to meet these criteria, Indian authorities are working closely to step in and negotiate resolution if any “unreasonable” standards are stipulated.</li> </ul> <p><b>What is the future outlook?</b></p> <ul style="list-style-type: none"> <li>The government is optimistic about the long-term export opportunities not only for wheat, but for all cereals including millets and super foods.</li> <li>Trade sources say if Indian wheat prices remain competitive and geopolitical and weather conditions stay favourable, the scope is good for wheat exports.</li> <li>India has won the confidence of markets such as Sri Lanka and Bangladesh.</li> <li>It needs to establish itself in the new markets too and the government should facilitate it.</li> </ul> <p><b>Connecting the dots:</b></p> <ul style="list-style-type: none"> <li><a href="#">Russia-Ukraine conflict can spark a global food crisis</a></li> <li><a href="#">Russia-Ukraine Stand-off</a></li> <li><a href="#">Russia-Ukraine War impact, beyond oil</a></li> <li><a href="#">Ukraine Crisis and Economy</a></li> </ul>
<p><b>Inflation in Rural India</b></p>	<p><b>Context:</b> The retail inflation rate surged to 6.95% in March 2022 — its highest level in nearly one and a half years, with six successive months of accelerating prices for consumers.</p> <ul style="list-style-type: none"> <li>Official data pegs <b>rural inflation</b> in March at 7.66%, with several States reporting even higher inflation, including West Bengal (8.85%), Uttar Pradesh and Assam (8.19%) as well as Madhya Pradesh (7.89%).</li> <li>With incremental fuel price hikes only kicking in during the latter half of March, the full impact of higher global oil prices being passed on to consumers will only begin reflecting in April.</li> <li>Economists expect inflation to go past 7% and stay around that level till as far as September.</li> </ul>

### How have urban and rural inflation trends differed over the past year?

- Urban inflation has usually tended to be higher than rural inflation by an average of about 0.8 percentage points through most of 2021.
- In December 2021, urban inflation was 5.9%, while rural inflation was 5.4%. In contrast, March 2022 marked the third consecutive month that the pace of price rise in the rural areas outstripped urban India, and the gap has been widening rapidly.
- From a minor 0.2 percentage points higher inflation rate over urban India in January, rural inflation hit a nine-month high of 6.38% in February even as urban inflation declined to 5.75%.
- In March, the gap between the two has surpassed 1.5% with urban inflation at 6.12% and rural areas clocking 7.66%.

### What are the key drivers of higher inflation in the hinterland?

- While **food inflation** was the key driver for the headline inflation rate jump in March, with the overall consumer food price index racing to 7.68% from 5.85% in February, the spike was far more pronounced in rural India where food inflation hit 8.04%.
- Food inflation in urban India was a full percentage point lower.
- Higher inflation in food, which has a higher weight in the Consumer Price Index, along with inflation in fuel and light and clothing, were the key factors driving up rural prices.
- Consider the inflation rates for some items faced by rural consumers vis-à-vis their urban peers —
  - oils and fats (20.75% v. 15.15%)
  - Clothing (9.9% v. 7.74%)
  - Footwear (12.2% v. 9.9%)
  - Fuel and light (8.3% v. 6.3%)
  - Personal care and effects (9.3% v. 7.7%)
  - Last but not the least, a persistently higher inflation in education costs of about 1 to 1.5 percentage points.
- Interestingly, while vegetable prices declined in the urban areas between February and March 2022, they inched up sharply in rural India. **Vegetable price trends** have been most intriguing — rural inflation was 1.4% in January, 3.7% in February and a whopping 10.6% in March.
- The **pent-up demand appears to be higher** in rural India, so clothing is seeing higher inflation as demand picks up.
- Moreover, fuel prices are higher in rural areas due to **connectivity issues**, while prices of **traditional fuel like firewood** have also risen in tandem.
- Part of this trend could also be explained by the **shift of labour** between urban and rural areas in the last two years, which has also injected volatility into demand dynamics.

### What next?

- While high inflation affects the poor the most in general, the fact that price rise in food, the largest component of their consumption basket, is driving the current surge, is particularly burdensome.

	<ul style="list-style-type: none"> <li>• The bottom 20% of the population in urban as well as rural India is facing the worst effects</li> <li>• While food price risks have risen due to the Russia-Ukraine conflict, higher prices for farm sector inputs could further feed into food inflation.</li> <li>• The cost of production is likely to increase by around 8-10%, therefore, the Minimum Support Price should at least be higher by around 12%-15%</li> <li>• With a normal monsoon anticipated this year, the inflation trajectory in months to come would determine if rural consumer demand rebounds or is constricted to focus on essential goods and services.</li> </ul> <p><b>Connecting the dots:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Financial Stability Report (FSR)- Jan 2022</a></li> <li>• <a href="#">Government on Inflation Targets</a></li> <li>• The <a href="#">perils of RBI's fixation on inflation</a></li> </ul>
<p><b>India's Power Crisis: An annual affair</b></p>	<p><b>Context:</b> Despite high coal production, thermal power plants in India are suffering from shortages</p> <p><b>Is India heading towards a power crisis? How bad is the situation?</b></p> <ul style="list-style-type: none"> <li>• Several States across the country are expected to face coal shortages , a scenario that leads to power shortages in the coming weeks with India entering the peak power demand season from April to October.</li> <li>• Also, the high global coal prices and below normal imports will further exacerbate the crisis.</li> <li>• In fact, coal supply shortage is playing out at a time when power demand is rising and is expected to surpass the July 2021 peak power demand of over 200 gigawatts (GW).</li> <li>• The daily peak power demand for Q4 FY22 averaged at 187 gigawatts (GW). During April 1-12, the average daily peak demand was more than 194 GW.</li> <li>• Prices in spot markets are also at multi-year highs. The market clearing price (MCP) at the Indian Energy Exchange (IEX) in FY22 stood at around <b>₹4.4 per kilowatt hour (kWh)</b>, which is the highest in the last 10 years.</li> </ul> <p><b>What is causing this crisis?</b></p> <ul style="list-style-type: none"> <li>• <b>Depleting coal supplies at thermal power plants</b>, the mainstay of India's power sector, has resulted in this crisis.</li> <li>• Coal-based power generation, with a capacity of around <b>210 gigawatts (GW) of the total 396 GW</b>, accounts for about <b>53 per cent of India's total power capacity</b> as on March 2022.</li> <li>• Experts predict that depleted coal supplies at power plants will lead to power outages, a scenario that played out in September-October 2021. <ul style="list-style-type: none"> <li>◦ Due to high demand and interruption in coal supply (<b>mainly due to heavy rains</b>), the coal stock at power plants fell sharply leading to power outages in several States.</li> </ul> </li> <li>• With concerted efforts of the government, the stocks rose to levels which is sufficient for an average of 10 days at 85 per cent of the plant load factor (PLF).</li> </ul>

### How critical is the coal shortage?

- The situation at thermal power plants is deteriorating consistently and had reached critical levels.
- As per the National Power Portal, 11 imported coal-based (ICB) power plants had critical stocks, as on April 13.
- Similarly, 79 domestic coal-based power plants were facing critical stocks of the key commodity on the same day.
- Again, on April 13, of the total 173 coal-based power plants, the total stocks available were 23.17 million tonnes (MT) against a daily requirement of 2.76 MT. The stocks at this level **will last for less than nine days**.

### What steps has the government taken to tackle this problem?

- To begin with, the government has issued **revised coal stocking norms**, which mandate the power plants to maintain sufficient stocks at all times; **if necessary, through imports** for blending to meet any contingent situation.
- Besides, an **Inter-Ministerial Sub Group** with senior officials from Ministries of Power, Coal, Railways, CEA, CIL and SCCL meet regularly to take various operational decisions to enhance supply of coal to thermal power plants
- Power Ministry has advised power plants to import about 36 MT coal for blending during 2022-23 with a view to build sufficient coal stock at Power Plants.
- The Ministry also has a Core Management Team (CMT) to ensure close monitoring of coal stocks at thermal power plants (TPPs) and operational decisions are being taken in CMT to augment supply of sufficient quantity of coal to the TPPs.

### Why is this crisis recurring every year?

- Power plants in India having low supplies of coal is not a new phenomenon. The shortage occurs almost every year and the government, despite its various measures, has not succeeded in overcoming the problem.
- At the heart of the issue is the **lack of planning and coordination between various ministries** involved in the process — Power Ministry, Coal Ministry and Railways.
- While the Coal Ministry blames the Indian Railways for non-availability of adequate rakes, the Railways has pointed out the mismanagement in loading and unloading of rakes by the Coal India (CIL).
- Despite high coal production and despatch by CIL and other PSU miners, the supply at power plants has still not gone above 15 days in the last six months and lack of coordination and planning is to be blamed for this.

### Connecting the dots:

- [Indonesian Palm Oil Crisis](#)
- [2021 Coal crisis](#)
- [Reforms in Coal Sector](#)
- Commercial Coal Mining

## Digital Banking Units (DBU)

**Context:** Finance Minister has reiterated her Budget announcement on setting up 75 digital banking units in 75 districts of the country this year.

### What was the announcement?

- In the Budget for 2022-23, the Finance Minister had noted that in recent years, digital banking, digital payments and **fintech innovations have grown at a rapid pace** in the country.
- As result, government is continuously encouraging these sectors to ensure that the **benefits of digital banking reach every nook and corner** of the country in a consumer-friendly manner.
- Taking forward this agenda, and to mark 75 years of our independence, government proposed to set up **75 Digital Banking Units (DBUs) in 75 districts** of the country by Scheduled Commercial Banks.

### What are these DBUs?

- DBU is a specialised fixed point business unit housing a certain minimum digital infrastructure for delivering digital banking products and services.
- It will be a fixed business unit operating under the retail banking division of the bank and will deliver new digital products and services and service existing financial products digitally, in a cost-effective, efficient, paperless and secure manner with 24X7 availability in both self-service and assisted mode.

### Who will set up these DBUs?

- Commercial banks (other than regional rural banks, payment banks and local area banks) with past digital banking experience are permitted to open DBUs in tier 1 to tier 6 centres, unless otherwise specifically restricted, without having the need to take permission from the RBI in each case.

### What are the minimum Products and Services to be offered by DBUs?

- **Liability Products and services:** (i) Account Opening: Saving Bank account under various schemes, Current account, Fixed deposit and Recurring deposit account; (ii) Digital Kit for customers: Mobile Banking, Internet Banking, Debit Card, Credit card and mass transit system cards; (iii) Digital Kit for Merchants: UPI QR code, BHIM Aadhaar, POS, etc.
- **Asset Products and services:** (i) Making applications for and onboarding of customer for identified retail, MSME or schematic loans. This may also include end to end digital processing of such loans, starting from online application to disbursal; (ii) Identified Government sponsored schemes which are covered under the National Portal.
- **Digital Services:** (i) Cash withdrawal and Cash Deposit only through ATM and Cash Deposit Machines respectively; (ii) Passbook printing / Statement Generation; (iii) Internet Banking Kiosk which may also include facilities like Cheque Book request, receipt and online processing of various standing instructions of clients; (iv) transfer of funds (NEFT/IMPS support); (v) Digital onboarding of customers for schemes such as Atal Pension Yojana (APY); Insurance onboarding for Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY) and Pradhan Mantri Suraksha Bima Yojana (PMSBY). Etc.

### What are the other key guidelines by RBI on DBUs?



- **Digital Banking Customer Education:** In addition to onboarding of customers in a fully digital environment, various tools and methods shall be used by DBUs to offer hands-on customer education on safe digital banking products and practices for inducing customers to self-service digital banking.
- **Customer Grievances:** There should be adequate digital mechanism to offer real time assistance and redress customer grievances arising from business and services offered by the DBUs directly or through Business Facilitators / Correspondents.
- **Reporting Requirements:** Performance update with respect to DBU shall be furnished in a RBI pre-defined reporting format. Banks shall furnish information relating to opening, closure, merger or shifting of DBUs to RBI.
- **Cyber Security:** In addition to ensuring physical security of the infrastructure of the DBU, adequate safeguards for cyber security of the DBUs will have to be ensured by the banks

#### **What are the benefits of DBUs?**

- **Digital India:** It will prompt the banks, including the traditional ones to adopt a Digital Strategy and thereby moving a step closer in realising the objectives of Digital India mission.
- **Cost Effective Banking:** DBUs will help banks themselves which are now looking to reduce physical footprint with fewer brick & mortar branches, with a 'light' banking approach.
- **Increases Rural Penetration:** The move will open up rural market for service providers besides providing a boost to credit flow.
- **Personalised products for new age customers:** The units can also be branded as new-age banks than can help provide personalised finance management tools to new customers.
- **Financial Literacy:** More such units will encourage more financial literacy and a favourable outlook towards digital banking – which is the need of the hour.
- **Fosters Innovation:** This will also prompt the launch of new products or services or transition of the existing ones to become holistically digitized, particularly for the Retail and SME segments, fostering innovation.
- **Better Consumer Experience:** Such units will be cheaper to establish than a new branch and can provide better customer experience aided by technology.

#### **How will these DBUs compete with fintechs?**

- Currently, fintechs operating as neobanks offer digital banking services but they do so in partnership with non-banking financial companies (NBFCs). Some of the neobanks offering services in India are Jupiter, Fi Money, Niyo, Razorpay X.
- Compared to conventional banks with online and mobile banking facilities, neobanks or digital banks excel at product innovation and offer far better digital solutions.
- However, given the arrangement they have currently with NBFCs or

	<p>scheduled banks to conduct the actual banking part, some have pegged these digital banks as “glorified digital distribution companies”.</p> <p><b>Connecting the dots;</b></p> <ul style="list-style-type: none"> <li>• <a href="#">UPI123: UPI for Feature Phone</a></li> <li>• <a href="#">E-RUPI</a></li> <li>• <a href="#">E-RUPI &amp; Governance</a></li> </ul>
<b>MCLR Hike Effects</b>	<p><b>What is Marginal Cost of funds-based lending rate (MCLR)?</b></p> <ul style="list-style-type: none"> <li>• Introduced by the RBI in 2016, MCLR was aimed at ensuring faster transmission of repo rate changes.</li> <li>• It was designed to be a transparent rate transmission mechanism as against its predecessor — the benchmark prime lending rate or BPLR.</li> <li>• Apart from the base repo rate, operating costs, current cost of carry-in cash reserve ratio and tenor premium are components of MCLR.</li> <li>• MCLR proved to be effective compared to BPLR as the former factored the current cost of money, whereas BPLR was based on average cost. This ensured better transmission.</li> </ul> <p><b>Why are banks increasing MCLR?</b></p> <ul style="list-style-type: none"> <li>• After three years, SBI increased its MCLR by 10 basis points (bps), while Bank of Baroda, Axis Bank, and Kotak Mahindra Bank raised their MCLR by 5 bps each across tenures.</li> <li>• This follows the RBI’s monetary policy committee or MPC replacing the reverse repo with <b>SDF or the standing deposit facility</b> as the floor rate for liquidity adjustment facility. <ul style="list-style-type: none"> <li>◦ SDF allows the RBI to absorb liquidity (deposit) from commercial banks without giving government securities in return to the banks.</li> <li>◦ Under reverse repo (which is a part of the Liquidity Adjustment Facility), banks will get government securities in return when they give excess cash to the RBI.</li> <li>◦ As a standing facility, the SDF supplements Marginal Standing Facility or the MSF (SDF for liquidity absorption whereas MSF for liquidity injection).</li> </ul> </li> <li>• In effect, it incentivises banks to park more money with the RBI as <b>SDF can earn 3.75 per cent interest</b> as against the reverse repo at 3.35 per cent.</li> <li>• SDF can have an indirect implication as banks may <b>raise their deposit rates to attract more money into the system</b>. As a precursor, they are tinkering with the lending rate so that the impact on banks’ profitability can be minimised.</li> </ul> <p><b>What does it mean for borrowers?</b></p> <ul style="list-style-type: none"> <li>• Borrowers are subjected to two categories of benchmark rates – MCLR and <b>EBLR or external benchmark lending rate</b>.</li> <li>• Introduced in 2019, EBLR was intended to plug the deficiencies in MCLR, which faced the criticism of slower than expected rate transmission.</li> <li>• Therefore, to further increase transparency and transmission, EBLR, which allowed banks to <b>directly benchmark their loans against the repo rate</b>, was introduced.</li> </ul>

	<ul style="list-style-type: none"> <li>• However, EBLR is now widely used in home loans. Just recently, banks have started adopting EBLR for other retail products such as personal loans and education loans, which were earlier based on MCLR.</li> <li>• However, being short-tenured, the recent hikes may not have much impact on retail loans.</li> <li>• That said, over 60 per cent of corporates borrow based on MCLR. Only fresh borrowing since mid-2020 and roll over of loans to high-rated corporates are happening at EBLR. Hence, <b>corporates may bear the brunt of a MCLR hike.</b></li> </ul> <p><b>Are the banks going against the trend by increasing MCLR when RBI has kept the Bank Rate static and Monetary Policy accommodative?</b></p> <ul style="list-style-type: none"> <li>• Yes and no.</li> <li>• As mentioned above, the hike in SDR indirectly is a rate hike by 40 bps as it allows banks to earn more income from deposits.</li> <li>• It's a tactical tool to reduce the money supply in the market and hence to that extent banks are justified in increasing the MCLR to account and create a buffer for a possible increase in their deposit rates as well.</li> <li>• However, at a time when Indian industries aren't geared to bear higher cost of leverage, the rate hike goes against the spirit of the MPC's accommodative stance.</li> <li>• While one could say that the RBI Governor's speech clearly signalled a tapering of easy money and a gradual increase in repo rates, sections of India Inc feel banks could have deferred the MCLR hikes by at least a quarter, to give companies a breather to plan for these rate hikes.</li> </ul> <p><b>Does this mean that a Bank Rate increase will happen soon?</b></p> <ul style="list-style-type: none"> <li>• The RBI Governor set the base for a gradual and calibrated withdrawal of excess liquidity in a non-disruptive manner earlier this month.</li> <li>• Seen along with the policy action of central banks globally, it does make a case for a rate hike in India.</li> <li>• Until recently, excess liquidity in the system was tapered or partially withdrawn using indirect or non-monetary tools such as VRRR (variable rate reverse repo auctions) and forex auctions.</li> <li>• But these don't help fight inflation, a battle which has now become necessary to take on, given that the recent wholesale inflation number at 14.55 per cent is at an all-time high.</li> <li>• Therefore, a repo rate hike is the last ammunition that the central bank will unleash to serve the dual purpose of <b>shirking liquidity and controlling inflation</b>. Economists expect 50 basis points increase in repo rate by December 2022.</li> </ul> <p><b>Connecting the dots:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">External Benchmark Lending Rate</a></li> <li>• <a href="#">Reverse repo normalization</a></li> </ul>
<b>Battery Swapping Policy</b>	<p><b>Context:</b> Government think-tank Niti Aayog has prepared a draft battery swapping policy and has put up for public consultation.</p> <p><b>What is battery swapping?</b></p> <ul style="list-style-type: none"> <li>• Battery swapping is a mechanism that involves exchanging discharged batteries for charged ones.</li> </ul>

- This provides the flexibility to charge these batteries separately by de-linking charging and battery usage, and keeps the vehicle in operational mode with negligible downtime.
- Battery swapping is generally used for smaller vehicles such as two-wheelers and three-wheelers with smaller batteries that are easier to swap, compared to four-wheelers and e-buses, although solutions are emerging for these larger segments as well.

**What are some of the key proposals?**

- **Tax Cuts:** The draft policy has suggested that the GST Council consider reducing the differential across the tax rates on Lithium-ion batteries (18%) and electric vehicle supply equipment (5%).
- **Equal Treatment:** The policy also proposes to offer the same incentives available to electric vehicles with a fixed battery to electric vehicles with swappable batteries.
- **Subsidy:** An appropriate subsidy can be allocated to battery providers operating in battery swapping ecosystems.
- **Ease of registration:** Transport Departments and State Transport Authorities will be responsible for easing registration processes for vehicles sold without batteries or for vehicles with battery swapping functionality.
- **Unique Identification:** The policy also proposes to assign a unique identification number (UIN) to swappable batteries at the manufacturing stage to help track and monitor them. Similarly, a UIN number will be assigned to each battery swapping station.
- **Charging Infrastructure:** The policy also requires state governments to ensure public battery charging stations are eligible for EV power connections with concessional tariffs especially during off-peak periods. Municipal corporations will be responsible for planning, zoning permissions and land allocation for battery swapping stations. It also proposes to install battery swapping stations at several locations like retail fuel outlets, public parking areas, malls, kirana shops and general stores etc
- **Battery-as-a-service (BaaS) Model for Interoperability:** Battery swapping will fall under BaaS business model, and such models would have to ensure interoperability between EVs and batteries for a successful mainstreaming of battery swapping as an alternative.
- **Data Sharing to enable peer-to-peer networks:** Major battery providers will be encouraged to sign data-sharing agreements to provide information on battery health and performance, and to enable more flexibility to consumers through peer-to-peer roaming networks.
- **Battery Safety:** To ensure a high level of protection at the electrical interface, a rigorous testing protocol will be adopted to avoid any unwanted temperature rise at the electrical interface.
- **Advanced Technologies:** Additionally, for better protection of assets, swappable batteries will have to be equipped with advanced features like IoT-based battery monitoring systems, remote monitoring and immobilisation capabilities.

	<ul style="list-style-type: none"> <li>• <b>Phased Implementation:</b> All metropolitan cities with a population of more than 40 lakh will be prioritised for the development of battery swapping networks under the first phase, which is within 1-2 years of the draft policy getting finalised.</li> </ul> <p><b>What are the advantages of having such a policy?</b></p> <ul style="list-style-type: none"> <li>• It reduces upfront costs of purchasing EVs.</li> <li>• The policy is targeted at supporting the adoption of battery-swapping, primarily for battery swapping systems used in electric scooters and three-wheeler electric rickshaws.</li> <li>• It drives adoption of EV among buyers.</li> <li>• It was also required amid several instances of EVs erupting into flames, raising concerns about their safety.</li> </ul> <p><b>Conclusion</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Deep-sea Mining for Building EV Batteries</a></li> <li>• <a href="#">Challenges of Electric Vehicles</a></li> <li>• <a href="#">FAME-II Scheme</a></li> <li>• <a href="#">Impact of Electric Vehicles on the Auto Industry</a></li> <li>• <a href="#">Electric vehicles: A Case Study of Norway</a></li> </ul>				
<b>Poison Pill and other corporate defence mechanisms</b>	<p><b>Context:</b> Publicly listed companies across the globe often witness threats of hostile takeovers, which take place through a back-door accumulation of shares. However, with time, they have come up with varied defence mechanisms to prevent such takeovers.</p> <p>Elon Musk who currently owns about 9% of Twitter shares (second biggest shareholder) made a bid to acquire Twitter and take it private to restore its commitment to free speech.</p> <p>The company's board has resisted this and deployed the "poison pill" mechanism</p> <p><b>About Poison Pill Mechanism</b></p> <ul style="list-style-type: none"> <li>• Officially known as a shareholder rights plan, it is a defence tactic utilized by a target company to prevent or discourage hostile takeover attempts.</li> <li>• The plan would allow existing shareholders, <b>excluding the acquiring entity</b> — Mr Musk in this case — to purchase additional shares at a discounted rate, making it difficult for the acquirer to establish a majority stake in the company.</li> <li>• The mechanism protects minority shareholders and avoids the change of control of company management.</li> <li>• Poison pills also often open the door to further negotiations that can force a bidder to sweeten the deal.</li> <li>• If a higher price makes sense to the board, a poison pill can simply be cast aside, clearing the way for a sale to complete.</li> </ul> <p><b>Other defence mechanisms are:</b></p> <table border="1"> <tr> <td><b>Greenmail Defence</b></td><td> <ul style="list-style-type: none"> <li>• The idea here is simple: pay them to go away and stop threatening the company with hostile takeover.</li> <li>• It involves the target company repurchasing its own shares at a premium and in a quantity enough to prevent a hostile takeover</li> </ul> </td></tr> <tr> <td><b>Crown jewel</b></td><td> <ul style="list-style-type: none"> <li>• The mechanism involves the target company spinning-off (n</li> </ul> </td></tr> </table>	<b>Greenmail Defence</b>	<ul style="list-style-type: none"> <li>• The idea here is simple: pay them to go away and stop threatening the company with hostile takeover.</li> <li>• It involves the target company repurchasing its own shares at a premium and in a quantity enough to prevent a hostile takeover</li> </ul>	<b>Crown jewel</b>	<ul style="list-style-type: none"> <li>• The mechanism involves the target company spinning-off (n</li> </ul>
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	<b>defence</b>	it a separate entity) its crown jewel unit or its most valued asset, in order to make the acquisition less desirable for the acquirer.
	<b>Pac-man defence</b>	<ul style="list-style-type: none"> <li>Prevent a hostile takeover by initiating a reverse takeover. It involves the target company making an offer to the acquire the company that commenced the takeover bid.</li> <li>The target company could make use of its 'war chest' or secure finances from outside for the reverse takeover bid.</li> </ul>
	<b>White Knight defence</b>	<ul style="list-style-type: none"> <li>Here, a 'friendly' company acquires a corporation at fair consideration when it is on the verge of being taken over by an 'unfriendly' acquirer. The unfriendly bidder is generally known as a "black knight."</li> </ul>

## ENVIRONMENT

Decarbonising Indian agriculture	<b>Context:</b> In 2016, agriculture and livestock emitted 407,821 Gg of CO <sub>2</sub> e, around 14% of total emissions. Out of this, 61.3% is linked to livestock. Apart from livestock, the major constituents of agriculture GHG emissions are	
	<ul style="list-style-type: none"><li>• Rice cultivation (17.5%)</li><li>• Fertilizer application (19.1%)</li><li>• Field burning of agricultural residues (2.2%).</li></ul>	
	<b>Why decarbonisation of Agriculture is a tricky issue in India?</b>	
	<ul style="list-style-type: none"><li>• India, with 1.75 million sq km arable land and a 300 million cattle population has 160 million rural households with agriculture being the main source of livelihood.</li><li>• Hence, decarbonisation has to be carefully calibrated to avoid an adverse impact to over 120 million marginal farmers who are still in the ‘survival phase’ of their socio-economic development</li></ul>	
	<b>What pathways can be used for decarbonising agriculture?</b>	
	Deep decarbonising pathways would include	
	<ul style="list-style-type: none"><li>• reducing biogenic methane from cattle and rice cultivation</li><li>• inculcating resource efficiency by reducing consumption of irrigation water, chemical fertilisers, and energy as well as farm waste processing</li><li>• reducing waste in the food supply chain</li><li>• building climate resilience through deploying automation and technology.</li></ul>	
	The following factors are critical for both decarbonisation and sustainability:	
	Soil	<ul style="list-style-type: none"><li>• Fertile soil enhances farm yields and incomes apart from being a carbon sink.</li><li>• Healthy soil holds more moisture and soil conservation methods reduce erosion.</li><li>• The co-products of biogas/biofuels plants are compost/bio-char, which enrich soil, mitigate environment pollution, and displace chemical fertilisers</li></ul>
	Freshwater	<ul style="list-style-type: none"><li>• Agriculture consumes over 80% of freshwater in India, making conservation critical.</li></ul>

		<ul style="list-style-type: none"> <li>• Micro-irrigation with automation and adoption of low water-intensive species and farming practices is essential.</li> <li>• Areas under water intensive crops must be reduced through crops diversification, examples being oil seeds, pulses, horticulture, and forage crops.</li> </ul>
	Alternate cropping:	<ul style="list-style-type: none"> <li>• This contributes to GHG mitigation and is an emerging area in climate-smart farming.</li> <li>• For example, seaweed cultivation as additive to cattle feed reduces biogenic methane emissions, improves feed quality, and enhances milk production</li> </ul>
	Agro-forestry:	<ul style="list-style-type: none"> <li>• Trees act as windbreaks, reduce soil erosion, enrich soil, and filter water.</li> <li>• Studies suggest that 5% increase at 5 yearly intervals to the existing 16 mha area can help mitigate India's projected emissions.</li> </ul>
	Bio-energy from farm waste	<ul style="list-style-type: none"> <li>• Manure-based community biogas plants can support clean cooking and distributed power.</li> <li>• India's National Policy for Biofuels/ SATAT scheme set a medium-term target of 15 million tonnes of bio-CNG.</li> <li>• BECCS (Bio Energy with Carbon Capture &amp; Storage) involves capturing CO<sub>2</sub> from bioenergy plants and permanent storage. This will lead to carbon removal as well as negative emissions.</li> </ul>
<p><b>Way Ahead</b></p> <ul style="list-style-type: none"> <li>• Sustainable agriculture pathways will require significant capital, but a large portion could come from repurposing existing subsidies.</li> <li>• Climate finance and patient capital will be needed for areas having longer gestation period, viz biogenic methane mitigation, agro-forestry, etc.</li> <li>• Coordinated and action-oriented implementation and appropriate institutional architecture from the Centre to states to districts or agro-zones is needed.</li> </ul> <p><b>Connecting the dots:</b></p> <ul style="list-style-type: none"> <li>• National Mission on Sustainable Agriculture (NMSA) under the National Action Plan on Climate Change (NAPCC),</li> <li>• National Initiative on Climate Resilient Agriculture (NICRA)</li> </ul>		
<p><b>Why India should enact a special law for conserving its sacred groves</b></p>	<p><b>Context:</b> India's sacred groves are being gradually altered due to ever-expanding human populations, pollution and removal of biomass; effective conservation is the need of the hour to maintain their functional values.</p> <p><b>What are Sacred Groves?</b></p> <p>Sacred groves are patches of natural vegetation preserved by ancient societies on religious and cultural grounds.</p> <ul style="list-style-type: none"> <li>• These patches of vegetation are rich in biodiversity and act as habitats of many endangered and threatened plant species.</li> <li>• A sacred grove usually consists of a dense cover of vegetation including climbers, herbs, shrubs and trees, with the presence of a village deity</li> </ul>	

and is mostly situated near a perennial water source.

- Sacred groves are considered to be symbols of the primitive practice of nature worship and support nature conservation to a great extent.
- These groves are, in general, maintained by rural communities. No governments have been involved in their maintenance so far.
- Many are protected and maintained by the village community by evolving certain taboos and restrictions. Some of the groves are also maintained by individual families.
- In some cases, individual and ancient trees also act as sacred groves, with the idol of a deity under the tree.
- There is a general belief among people that any damage to the sacred grove, harm to any living fauna there or cutting any tree or climber of the grove may cause diseases and failure of agricultural crops.
- Many villages have set apart sanctified land to propitiate the Vanadevadas, or forest spirits. The entire grove is considered sacred in certain areas and worshipped.

It is estimated that India may have about 100,000 such groves. The names of such groves vary depending upon the region and language of our country. They are called with different names in different states:

- Sarna in Bihar
- Dev Van in Himachal Pradesh
- Devarakadu in Karnataka
- Kavu in Kerala
- Dev in Madhya Pradesh
- Devarahati or Devarai in Maharashtra
- Lai Umang in Maharashtra
- Law Kyntang or Asong Khosi in Meghalaya
- Oran in Rajasthan
- Kovil Kadu or Sarpa Kavu in Tamil Nadu

#### **Threats to Sacred Groves**

So far, these sacred groves have been protected through social fencing with the involvement of the local community.

- But of late, some groves have been cleared for the **construction of buildings and other modernisation works** in connection with temple activities.
- Certain sacred groves have been reduced to small patches due to **encroachments**.
- In some places, old trees have been felled and **fruit orchards and fruit gardens** have been established.
- The groves are being gradually altered due to the **increasing needs of the ever-expanding human population, pollution and removal of biomass**.

#### **How to save these groves – The Way Forward**

**Effective conservation and management practices** are thus the need of the hour in order to maintain the groves' functional values. The groves have great research value in in situ conservation of rare, endangered and threatened plant species.

	<ul style="list-style-type: none"> <li>It is high time that public awareness is created about the importance of these sacred groves, developmental activities are banned and the felling of trees or removal of any other vegetation is completely stopped.</li> <li>This is possible only by way of enacting a special law for the protection and management of sacred groves.</li> <li>As the management practices and other rituals vary from state to state, the concerned state governments may promulgate such an act as suitable for the state. The idea should be to protect certain rare, endangered and threatened plant species in the era of global warming and climate change.</li> </ul> <p><b>NOTE:</b> Sacred groves have been legally protected under 'community reserves' in the Wildlife (Protection) Amendment Act, 2002.</p>
<b>India's solar power energy targets</b>	<p><b>Context:</b> Recent reports indicate that India is likely to miss its 2022 target of installing 100 gigawatts (GW) of solar power capacity.</p> <p><b>What is India's solar policy?</b></p> <ul style="list-style-type: none"> <li>Since 2011, India's solar sector has grown at a compounded annual growth rate (CAGR) of around 59% from 0.5GW in 2011 to 55GW in 2021.</li> <li>The Jawaharlal Nehru National Solar Mission (JNNSM), also known as <b>the National Solar Mission (NSM)</b>, which commenced in January 2010, marked the first time the government focussed on promoting and developing solar power in India. <ul style="list-style-type: none"> <li>Under the scheme, the total installed capacity target was set as 20GW by 2022.</li> <li>In 2015, the target was revised to 100GW and in August 2021, the government set a solar target of <b>300GW by 2030</b>.</li> </ul> </li> <li>India currently ranks fifth after China, U.S., Japan and Germany in terms of installed solar power capacity.</li> <li>As of December 2021, the <b>cumulative solar installed capacity of India is 55GW</b>, which is roughly half the renewable energy (RE) capacity (excluding large hydro power) and 14% of the overall power generation capacity of India.</li> <li>Within the 55GW, grid-connected utility-scale projects contribute 77% and the rest comes from grid-connected rooftop and off-grid projects.</li> </ul> <p><b>What is the shortfall expected in meeting the target?</b></p> <ul style="list-style-type: none"> <li>As of April, only about 50% of the 100GW target, consisting of 60GW of utility-scale and 40GW of rooftop solar capacity, has been met.</li> <li>Nearly 19 GW of solar capacity is expected to be added in 2022 — 15.8GW from utility-scale and 3.5GW from rooftop solar.</li> <li>Even accounting for this capacity would mean about 27% of India's 100GW solar target would remain unmet.</li> <li>A 25GW shortfall in the 40GW rooftop solar target, is expected compared to 1.8GW in the utility-scale solar target by December 2022. Thus, it is in rooftop solar that the challenges of India's solar-adoption policy stick out.</li> </ul> <p><b>What are the reasons for rooftop solar adoption not meeting targets and</b></p>

#### what does the future hold?

- In December 2015, the government launched the first phase of the grid-connected rooftop solar programme to incentivise its use in residential, institutional and social areas.
- The second phase, approved in February 2019, had a target of 40GW of cumulative rooftop solar capacity by 2022, with incentives in the form of central financial assistance (CFA).
- As of November 2021, of the phase 2 target of 4GW set for the residential sector, only 1.1GW had been installed.
- The **disruption in supply chains** due to the pandemic was a key impediment to rooftop solar adoption.
- In its early years, India's rooftop solar market struggled to grow due to
  - lack of consumer awareness
  - inconsistent policy frameworks of the Centre/ State governments
  - Issues of financing.
- Recently, however, there has been a sharp rise in rooftop solar installations thanks to falling technology costs, increasing grid tariffs, rising consumer awareness and the growing need for cutting energy costs. These factors are expected to persist giving a much-needed boost to this segment.
- Going ahead, rooftop solar adoption is **expected to proportionally increase** as land and grid-connectivity for utility solar projects are expected to be hard to come by.
- Factors impeding rooftop-solar installation include
  - pandemic-induced supply chain disruption to policy restrictions
  - regulatory roadblocks
  - limits to net-metering (or paying users who give back surplus electricity to the grid)
  - taxes on imported cells and modules
  - unsigned power supply agreements (PSAs)
  - banking restrictions
  - financing issues
  - delays in or rejection of open access approval grants
  - unpredictability of future open access charges

#### How critical is solar power to India's commitment to mitigate climate change?

- Solar power is a major strategy of India's commitment to address global warming according to the terms of the Paris Agreement, as well as achieving net zero, or no net carbon emissions, by 2070.
- Prime Minister Modi at the United Nations Conference of Parties meeting in Glasgow, in November 2021, said India would be reaching a non-fossil fuel energy capacity of 500 GW by 2030 and meet half its energy requirements via renewable energy by 2030.
- To boost the renewable energy installation drive in the long term, the Centre in 2020 set a target of 450GW of RE-based installed capacity to be achieved by 2030, within which the target for solar was 300GW.



	<ul style="list-style-type: none"> <li>Given the challenge of integrating variable renewable energy into the grid, most of the RE capacity installed in the latter half of this decade is likely to be based on wind solar hybrid (WSH), RE-plus-storage and round-the-clock RE projects rather than traditional solar/wind projects.</li> <li>On the current trajectory, it is expected that the India's solar target of 300GW by 2030 will be off the mark by about 86GW, or nearly a third.</li> <li>It is speculated that the government, in the short-term, will aggressively push for expediting solar capacity addition to achieve the 100GW target by 2022 by re-allocating some of the unmet rooftop targets to utility-scale projects.</li> </ul> <p><b>Connecting the dots:</b></p> <ul style="list-style-type: none"> <li><a href="#">International Solar Alliance</a></li> <li><a href="#">Paris Climate Deal &amp; India's progress</a></li> <li><a href="#">Glasgow Summit</a>: Achievements &amp; Disappointments</li> <li><a href="#">IPCC report on Climate Change</a></li> </ul>
<b>Agriculture and Climate Adaptation</b>	<p>IPCC's Sixth Assessment Report (AR6) on climate change has delivered a wake up-call to narrow the widening "adaptation gap" and build resilience against "unfamiliar" climates.</p> <p><b>Climate Change and Indian Agriculture</b></p> <ul style="list-style-type: none"> <li>Climate change already has evident effects <b>on crop production &amp; productivity</b> with increasing frequency &amp; severity of extreme weather events &amp; unpredictable rainfall.</li> <li>This eventually leads to <b>local food supply disruptions</b> and negative impacts on rural incomes and poverty.</li> <li>Climate Change adversely impacts on availability and prices of food, <b>exacerbating undernourishment in the country</b>.</li> <li>As nearly 86% of Indian agriculture is small-holder agriculture and a significant part of it is subsistence agriculture adaptation to climate change is <b>an issue of survival</b>.</li> <li>Any response to climate change has the challenge of ensuring adequate food supply while at the same time conserving natural resources and ecosystems.</li> </ul> <p><b>Way Ahead</b></p> <ul style="list-style-type: none"> <li><b>Development plans in the agriculture sector</b> focussing on soil and water management, crop diversification, cropping system optimisation, risk sharing (co-investment, community engagement), risk transfer (crop/livestock insurance), and improved localised forecasting and agro-advisory is required to optimise mitigation benefits.</li> <li>Also, it is essential to design policies and strategies especially <b>focussing on small and marginal</b> landholders.</li> <li>Agriculture being a State subject under the Indian Constitution, <b>State Action Plan on Climate Change (SAPCC)</b> need to be developed that is in sync with SDGs.</li> <li>It is also equally important to <b>periodically review</b>, update and integrate the agriculture, forestry and land use component in the SAPCCs.</li> <li>Adaptation measures pertaining to impact of natural disasters in agriculture and allied sectors need to be <b>embedded in the disaster</b></li> </ul>

	<p><b>management plans</b> prepared by district administration.</p> <ul style="list-style-type: none"> <li>Along with development of <b>adaptive crop varieties</b>, it is important to provide the supporting infrastructure including water supply, power and physical connectivity on which agricultural value chain depends.</li> <li>The financial needs of adaptation in India (2015–2030) in key climate sensitive sectors such as agriculture, forestry, fisheries, and water resources is estimated at \$206 billion (at 2014–2015 prices). Therefore, <b>large and continued financial investment</b> from government &amp; private sector is required towards this purpose.</li> </ul> <p><b>Conclusion</b> A pro-active adaptation approach in agriculture is needed, streamlining efforts and resources on climate and disaster resilience to reduce risk exposure, limiting impacts, and preparedness in coping with disasters.</p> <p><b>Connecting the dots:</b></p> <ul style="list-style-type: none"> <li><a href="#">Paris Climate Deal &amp; India's progress</a></li> <li><a href="#">Glasgow Summit</a>: Achievements &amp; Disappointments</li> <li><a href="#">IPCC report on Climate Change</a></li> </ul>
<p><b>Climate Change and Carbon Pricing</b></p>	<p><b>Context:</b> Pennsylvania has become the first major fossil fuel-producing state in the US to adopt a carbon pricing policy to address climate change.</p> <ul style="list-style-type: none"> <li>It joins 11 states where coal, oil and natural gas power plants must buy credits for every ton of carbon dioxide they emit.</li> <li>President Joe Biden is attempting a less direct approach — known as the social cost of carbon — that calculates future climate damages to justify tougher restrictions on polluting industries.</li> <li>Canada imposes fuel charges on individuals and also makes big polluters pay for emissions. It's one of 27 nations with some kind of carbon tax, according to The World Bank.</li> </ul> <p><b>So what's the price tag?</b></p> <ul style="list-style-type: none"> <li>It varies depending on governments.</li> <li>The US administration's social cost estimate is about <b>\$51</b>, meaning every ton of carbon dioxide emitted from a power plant or tail pipe today is projected to contribute to \$51 in economic damages in coming years.</li> <li>The state of New York has its own social cost of carbon, updated in 2020 to <b>\$125 a ton</b> to account for economic trends.</li> <li>By contrast, emissions were most recently valued at <b>\$13.50 per ton</b> at auction under the Regional Greenhouse Gas Initiative in the Northeast, which Pennsylvania is joining</li> <li>Canada's carbon taxes include a minimum fuel charge for individuals equivalent to about <b>\$40 per ton</b>.</li> </ul> <p><b>Why the big differences?</b></p> <ul style="list-style-type: none"> <li>The social cost of carbon attempts to capture the value of all climate damage, centuries into the future.</li> <li>Carbon pricing reflects how much companies are <b>willing to pay today for a limited amount of emission</b> credits offered at auction.</li> <li>In other words, the social cost of carbon guides policy, while carbon pricing represents <b>policy in practice</b>.</li> </ul>

- A more stringent policy would have a higher carbon price. A more lax policy would give you a lower carbon price.
  - Trump administration had cut the social cost of carbon from about \$50 per ton to \$7 or less. The lower number included only domestic climate impacts and not global damages.

**A smart approach is pricing carbon which can be done in following ways:**

#### **Emission Trading**

- One way to price carbon is through emission trading, i.e., setting a maximum amount of allowable effluents from industries, and permitting those with low emissions to sell their extra space.
- It is a market-based approach to controlling pollution by providing economic incentives for reducing the emissions of pollutants.
- This is in contrast to command-and-control environmental regulations imposed by governments

#### **Carbon Tax**

- Another way is to put a carbon tax on economic activities — for example, on the use of fossil fuels like coal, as done in Canada and Sweden.
- A carbon tax is a fee on the carbon content of fossil fuels
- It is a powerful monetary disincentive that motivates transition to clean energy across the economy, simply by making it more economically rewarding to move to non-carbon fuels and energy efficiency.
- **Example:** Canada imposed a carbon tax at \$20 per tonne of CO<sub>2</sub> emissions in 2019 and gradually increasing it. This is estimated to reduce greenhouse gas pollution by between 80 and 90 million tonnes by 2022.
- **The fiscal gains from pricing carbon can be sizeable.** A carbon tax at \$35 per tonne of CO<sub>2</sub> emissions in India is estimated to be capable of generating some 2% of GDP through 2030.

#### **Carbon Tariff on Imports**

- Carbon emissions continue unabated by developed world as they outsource it in developing countries and import the goods produced through such process. Therefore, imports are having substantial carbon footprint in any economy.
- Big economies like India & EU should also use their global monopsony, or the power of a large buyer in international trade, to impose a carbon tariff & move towards green trade prospects.

#### **Is any of this working?**

- Emissions from northeastern states of USA would have been about 24% higher if the carbon pricing mechanism hadn't been in place.
- The carbon auctions also have brought in almost \$5 billion that can be used to reduce household energy cost increases and promote renewable energy.
- The expansion of carbon pricing into Pennsylvania remains tenuous. A legal challenge is pending and the state's term-limited Democratic governor could soon be replaced by a successor who opposes the state's participation

	<ul style="list-style-type: none"> <li>While pricing carbon would be the gold standard, it seems politically difficult to actually get there.</li> </ul> <p><b>Conclusion</b></p> <ul style="list-style-type: none"> <li>Without a nationwide cap and trade program, environmentalists and economists want the government to be more aggressive in using the social cost of carbon to overhaul government energy policy.</li> </ul> <p><b>Connecting the dots</b></p> <ul style="list-style-type: none"> <li><a href="#">India's long road to Net-Zero</a></li> <li><a href="#">Carbon Border Tax and India's opposition</a></li> <li><a href="#">China's Climate Commitments</a></li> <li><a href="#">Paris Climate Deal</a></li> </ul>
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## HISTORY AND CULTURE

<b>Jallianwala Bagh</b>	<p><b>Context:</b> India pays tributes to those martyred in Jallianwala Bagh on this day (<b>April 13</b>) in 1919.</p> <ul style="list-style-type: none"> <li>Jallianwala Bagh Massacre, <b>also called Massacre of Amritsar</b> was an incident on <b>April 13, 1919</b>, in which British troops fired on a large crowd of unarmed Indians in an open space known as the Jallianwala Bagh in Amritsar in Punjab.</li> <li>A large but peaceful crowd had gathered at the Jallianwala Bagh to protest against the arrest of pro-Indian independence leaders <b>Dr. Saifuddin Kitchlu and Dr. Satya Pal</b>. <ul style="list-style-type: none"> <li>Dr. Saifuddin Kitchlu and Dr. Satya Pal opposed the passing of Rowlat Act in early 1919, which essentially extended the repressive wartime measures.</li> </ul> </li> <li>In response to the public gathering at Bagh, the <b>British Brigadier-General R. E. H. Dyer</b> surrounded the Bagh with his soldiers. After blocking the exit with his troops, he ordered them to shoot at the crowd, continuing to fire even as protestors tried to flee. <ul style="list-style-type: none"> <li>The Jallianwala Bagh could only be exited on one side, as its other three sides were enclosed by buildings.</li> </ul> </li> <li>At least 1000 people were killed and over 1,200 other people were injured</li> <li>The ineffective inquiry by <b>Disorders Inquiry Committee (also known as Hunters Commission)</b> together with the initial praise for Dyer, fuelled great widespread anger against the British among the Indian populace, leading to the Non-cooperation movement of 1920–22.</li> <li>Britain never formally apologised for the massacre but expressed “regret” in 2019.</li> </ul> <p><b>What exactly led to Jallianwala Bagh massacre?</b></p> <ul style="list-style-type: none"> <li>In 1859, the British Crown assumed direct control of the colony. Forever fearful of sedition and conspiracies, the colonial government used the opportunity offered by the First World War to introduce the <b>Defence of India Act in 1915</b>. The wartime legislation gave the government extraordinary powers of preventive detention, to lock up people without trial and to restrict speech, writing and movement.</li> </ul>
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- In March **1919**, it introduced the Anarchical and Revolutionary Crimes Act, popularly known as the **Rowlatt Act**, which extended its wartime emergency powers into peacetime.
- Not long after the war began, Gandhi had returned to India after 21 years in South Africa. Gandhi was loyal to the British Empire and supported Britain in the First World War. Upon his return to India, he spent the first few years leading nonviolent struggles on local grievances.
- The news of the impending Rowlatt legislation became public, Gandhi immediately expressed his opposition and called for a nationwide general strike on April 6, 1919. He asked people to engage in nonviolent struggle, or satyagraha: *Observe a daylong fast and hold meetings to demand the repeal of the legislation.*
- Punjab was already heating up. The unrest was of particular concern to the British because Punjab was a vital economic and military asset. By World War I, soldiers from Punjab constituted three-fifths of the British Indian Army, which was extensively deployed in the war.
- To restore normalcy to the region, dispatched to Amritsar, General Dyer took control from the civil authorities on April 11. He issued a proclamation prohibiting public assembly and warning that such gatherings would be dispersed by force.
- On April 13, several thousand gathered in Jallianwala Bagh in defiance of General Dyer's orders.
- General Dyer fired upon unarmed civilians. Shooting continued for ten minutes. The government estimate was 379 dead, other estimates were considerably higher.

#### **Effects of Jallianwala Bagh massacre**

- The perpetrator of the massacre, General Dyer, was honored and rewarded by the British public and this removed all illusions about benign British rule in the country.
- The brutality of massacre stunned entire nation. Gandhiji overwhelmed by atmosphere of violence withdrew movement on April 18. Mahatma Gandhi gave up the title of Kaiser-i-Hind, bestowed by the British for his work during the Boer War.
- Rabindranath Tagore, the poet and Nobel laureate, returned his knighthood in protest. Winston Churchill condemned the shooting as "monstrous."
- Winston Churchill condemned the shooting as "monstrous."
- Jallianwala Bagh shook faith in British justice. **Hunter commission** committee formed by the government on India on October 14, 1919 to inquire the events at Punjab
  - The purpose of the commission was to investigate the disturbances in Punjab, find the cause and bring measures to cope with the effects
  - According to the report submitted by the commission the action of General Dyer was strongly condemned but no action was taken against him.



	<ul style="list-style-type: none"> <li>Jallianwala Bagh massacre marked the beginning of the resistance against the exceptional laws of colonial governance.</li> </ul> <p><b>Turning point in India's Modern History</b></p> <ul style="list-style-type: none"> <li>It marked a turning point in India's modern history, in that it left a permanent scar on Indo-British relations and was the prelude to Mahatma Gandhi's full commitment to the cause of Indian nationalism and independence from Britain.</li> <li>After the Amritsar Massacre Gandhi became convinced that India should accept nothing less than full independence. To achieve this end, Gandhi began organizing his first campaign of mass civil disobedience against Britain's oppressive rule.</li> <li>In December 1919, the congress session was held at Amritsar. It was attended by a large number of people, including peasants.</li> <li>It was clear that the brutalities had only added fuel to the fire and made the people's determination stronger to fight for their freedom and against oppression.</li> <li>Series of new revolutionary leaders justified violence and started new organisations for the execution of the same.</li> </ul> <p><b>Value Addition:</b></p> <p><b>Examples of other such massacre or killings</b> (on same lines of Jallianwala Bagh):</p> <ul style="list-style-type: none"> <li><b>1942 Lidice massacre</b> – In World War II, in Nazi-occupied Czechoslovakia, the Lidice massacre was a complete destruction of the village of Lidice, now in the Czech Republic. Orders were passed from Adolf Hitler and Heinrich Himmler.</li> <li><b>1968 My Lai massacre</b> – The My Lai massacre was one of the most horrific incidents of violence committed against unarmed civilians during the Vietnam War. Many unarmed people were killed by the U.S. Army soldiers.</li> </ul>
<p><b>Mahavir Jayanti</b></p>	<p><b>Context:</b> The festival is considered to be the most important one for <b>Jains</b> and marks the <b>birth anniversary of Lord Mahavir</b>.</p> <ul style="list-style-type: none"> <li>Lord Mahavir was one of the most charismatic and influential spiritual leaders to have walked the earth.</li> <li>His messages of nonviolence, truth, honesty, selflessness and sacrifice are timeless and full of universal compassion. He preached the gospel of universal love and emphasized that all living beings, including plants and animals, are equal and deserved to be treated with love and respect.</li> </ul> <p>We must draw inspiration from Lord Mahavir's life, his practice of austerity, his stress on the need to adopt a positive attitude towards life and his messages of love, tolerance and peace, especially now, when humanity is facing a formidable health crisis of the spread of COVID-19 as well as the infamous war.</p> <ul style="list-style-type: none"> <li>Lord Mahavira was born at Kundagrama, Vaishali in present day Bihar. King Siddhartha and Trishala are parents of Mahavira</li> <li>Mahavira was associated with Makari Gosala Putta for 6 years, but later departed due to serious philosophical differences.</li> <li>Then Mahavira joined Nigrantha sect, while Makari Gosala Putta</li> </ul>

	<p>started Ajivika religion.</p> <ul style="list-style-type: none"> <li>• After Mahavira, Jainism came under the control of 11 disciples of Mahavira, namely Ganadharas</li> <li>• Associated symbol: Lion</li> </ul> <p><b>The three principles of Jainism, also known as Triratnas (three gems), are:</b></p> <ul style="list-style-type: none"> <li>• Right faith</li> <li>• Right knowledge</li> <li>• Right conduct</li> </ul> <p><b>Value Additions:</b></p> <ul style="list-style-type: none"> <li>• According to Mahavira, a person is born in a high or in a lower varna in consequence of the sins or the virtues acquired by him in the previous birth.</li> <li>• The <b>Hathigumpha Inscription</b> proves that Jainism entered <b>Orissa</b> and probably became the state religion within 100 years of death of Mahavira.</li> <li>• The teachings of the <b>Parshvanatha</b> are collectively known as <b>Chaturyama</b>. It is the "four-fold teaching" of the Parshvanath.</li> <li>• The <b>Mahamastakabhisheka</b>, refers to the abhisheka of the Jain images when held on a large scale. The most famous of such consecrations is the anointment of the <b>Bahubali Gommateshwara Statue located at Shravanabelagola in Karnataka, India</b>. It is an important Jain festival held once in <b>every 12 years</b>.</li> <li>• Jainism predates Buddhism, while Buddha was older than Mahavira.</li> <li>• Mahavir is considered to be <b>24th and the last</b> Tirthankar.</li> <li>• Through <b>Sangha</b>, Mahavira spread his teaching that consists of <b>women &amp; Men</b> in the organized sangha.</li> <li>• There are two sect of Jainism- <b>Svetambar</b> (White Clad) and <b>Digambar</b> (Sky clad or Naked).</li> <li>• <b>First Jain Council</b> was convened at <b>Patliputra</b> presided by <b>Sthaulabhadra</b> who was the leader of Shwetambar during 3rd century BC. It resulted in the <b>compilation of 12 Angas</b> replacing the lost 14 Purvas.</li> <li>• <b>Second Council</b> – Second Jain Council was held at <b>Vallabhi</b> under the chairmanship of <b>Devardhi</b> in 521 A.D.</li> <li>• <b>What is Tirtha?</b></li> <li>• <ul style="list-style-type: none"> <li>○ A Tirtha is a religious pilgrim place.</li> <li>○ Most tirths in India of any religion are based upon the banks of Rivers.</li> <li>○ The idea of a Tirtha is to cross the river of human miseries.</li> <li>○ A Tirthankara is a founder of a Tirtha. He achieves the enlightenment and then shows the path to others.</li> <li>○ A Tirthankara achieves Moksha or liberation at the end of his human life.</li> </ul> </li> </ul>
<b>Dr. Bhimrao Ramji Ambedkar</b>	<b>Bhimrao Ramji Ambedkar</b> (14 April 1891 – 6 December 1956), popularly known as Babasaheb Ambedkar, was an Indian jurist, economist, politician and social reformer who inspired the Dalit Buddhist movement and campaigned

against social discrimination towards the untouchables (Dalits), while also supporting the rights of women and labour.

- He was independent India's first law and justice minister, the principal architect of the Constitution of India, and a founding father of the Republic of India.
- **Birth Anniversary:** 14th April
- **Mahaparinirvan Diwas:** Death Anniversary of Ambedkar
- **Known famously as:** The Architect of Modern India
- **His autobiography:** Waiting for a Visa

**His books:**

- **Annihilation of Caste** – It strongly criticised Hindu orthodox religious leaders and the caste system in general, and included “a rebuke of Gandhi” on the subject.
- **Who Were the Shudras?** – Ambedkar tried to explain the formation of untouchables. He saw Shudras and Ati Shudras who form the lowest caste in the ritual hierarchy of the caste system, as separate from Untouchables.

**Constitution of Reserve Bank of India**

Based on the ideas that Ambedkar presented to the **Hilton Young Commission** Ambedkar was trained as an economist, and was a professional economist until 1921, when he became a political leader. He wrote three scholarly books on economics:

1. Administration and Finance of the East India Company
2. The Evolution of Provincial Finance in British India
3. The Problem of the Rupee: Its Origin and Its Solution

**Ambedkar and Untouchability**

While practising law in the Bombay High Court, he tried to promote education to untouchables and uplift them. His first organised attempt was his establishment of the central institution **Bahishkrit Hitakarini Sabha**, intended to promote education and socio-economic improvement, as well as the welfare of “outcastes”, at the time referred to as depressed classes.

For the defence of Dalit rights, he started five periodicals –

1. Mooknayak (the leader of the dumb, 1920)
2. Bahishkrit Bharat (Ostracized India, 1924)
3. Samta (Equality, 1928)
4. Janata (The People, 1930)
5. Prabuddha Bharat (Enlightened India, 1956)

**Manusmriti Dahan Din:** In a conference in late 1927, Ambedkar publicly condemned the classic Hindu text, the Manusmriti (Laws of Manu), for ideologically justifying caste discrimination and “untouchability”, and he ceremonially burned copies of the ancient text. On 25 December 1927, he led thousands of followers to burn copies of Manusmriti. Thus, annually **25 December** is celebrated as Manusmriti Dahan Din (Manusmriti Burning Day) by Ambedkarites and Dalits.

**Kalaram Temple movement:** About 15,000 volunteers assembled at Kalaram Temple Satyagraha, making one of the greatest processions of Nashik. The procession was headed by a military band, a batch of scouts, women and men

	<p>walked in discipline, order and determination to see the god for the first time. When they reached to gate, the gates were closed by Brahmin authorities.</p> <p><b>Poona Pact:</b> In 1932, British announced the formation of a separate electorate for “Depressed Classes” in the Communal Award.</p> <ul style="list-style-type: none"> <li>• Gandhi fiercely opposed a separate electorate for untouchables, saying he feared that such an arrangement would divide the Hindu community. Gandhi protested by fasting while imprisoned in the Yerwada Central Jail of Poona. Following the fast, Congress politicians and activists such as Madan Mohan Malaviya and Palwankar Baloo organised joint meetings with Ambedkar and his supporters at Yerwada.</li> <li>• On 25 September 1932, the agreement known as <b>Poona Pact</b> was signed between <b>Ambedkar</b> (on behalf of the depressed classes among Hindus) and <b>Madan Mohan Malaviya</b> (on behalf of the other Hindus). The agreement gave <b>reserved seats for the depressed classes in the Provisional legislatures</b>, within the general electorate.</li> <li>• Due to the pact, the depressed class received 148 seats in the legislature, instead of the 71 as allocated in the Communal Award earlier proposed by British Prime Minister <b>Ramsay MacDonald</b>.</li> <li>• The text uses the term “Depressed Classes” to denote Untouchables among Hindus who were later called Scheduled Castes and Scheduled Tribes under India Act 1935, and the later Indian Constitution of 1950. In the Poona Pact, a unified electorate was in principle formed, but primary and secondary elections allowed Untouchables in practice to choose their own candidates.</li> </ul> <p><b>Views of Dr. Ambedkar regarding the Indian Constitution</b></p> <p><b>Ambedkar warned –</b></p> <ul style="list-style-type: none"> <li>• No democratic constitution can be modelled on the Hindu tradition of state and village panchayats.</li> <li>• What is the village, Ambedkar asked, but a sink of localism, a den of ignorance, narrow-mindedness and communalism?</li> </ul> <p><b>Sets Universal values –</b></p> <ul style="list-style-type: none"> <li>• The Constitution is a normative document, but the values it espouses are universal and ‘thin’. They do not reflect the belief system of one section of the population even if it is in a majority. Nor do these values dismiss the value systems of minority groups.</li> </ul> <p><b>On Constitutional Morality –</b></p> <ul style="list-style-type: none"> <li>• Dr. Ambedkar talked of constitutional morality.</li> <li>• He said citizen will have deep respect or admiration for Constitution when they realize true intent of Constitution which helps them to possess freedom and rights. When they realize Constitution composes of thin conception of ‘good’ that can hold a plural and diverse people together.</li> </ul> <p><b>Democracy is only a top-dressing for the Constitution of India</b></p> <ul style="list-style-type: none"> <li>• For Ambedkar, democracy is only a top-dressing on an Indian soil which is essentially undemocratic.</li> <li>• It is the institutionalisation of constitutional democracy that has</li> </ul>
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changed the way Indians think of themselves in relation to each other, and in relation to the state. The Constitution has managed to inculcate democratic sensibilities and spark yearnings for more democracy, not less.

**Concept of Federalism:** His concept of federalism meant that the State was a federation in normalcy, but unitary in emergency.

**Centre Was Made Strong:**

- In the Draft Constitution Dr. Ambedkar offered more powers to the Centre and made it strong. Some members of the constituent assembly criticized him on the ground that since Dr. Ambedkar postulated – the rights and values of each individual and the development of each province and each– village, it was contradictory of his part to make the Centre strong.
- Justifying the provisions for a strong Central authority Dr. Ambedkar said that he made the Centre strong not only to ‘save minorities from the misrule of majority’ but also “for it is only the Centre which can work for a common end and for the general interests of the country as a whole.”

**Equality of Opportunity:**

- Of all the rights, Dr. Ambedkar observed “Equality of Opportunity” as the most important one.
- Regarding the constitutional remedies, he characterized **Article 32** as the very **soul of the Constitution** and the very heart of it.
- To him, fundamental rights would mean establishment of equality and liberty in order to reform our social system, which is so full of inequalities, discriminations, and other which conflict with our fundamental rights.

**Directive Principles of State Policy:**

- The Directive Principles of State Policy contained the positive **obligations of the state towards its citizens**.
- The Directives were meant to ensure **social and economic democracy** which was secured by the provisions of fundamental rights in a written Constitution.
- Dr. Ambedkar said: “What are called Directive Principles is simply another name for Instruments of instructions to the legislature and the executive...as to how they should exercise their power.”

**Constitution, A Dynamic Document:** The Constitution is a dynamic document it should grow with the growth of the nation and should suit the changing needs and circumstance. So Dr. Ambedkar urged the necessity of amendment.

**Concept of Sovereignty and Suzerainty:** Dr. Ambedkar’s concept of sovereignty and suzerainty and of the Indian States, i.e., integration of the native Indian Princely States which gave the shape to the map of India as it is today, has indeed been prophetic.

**National Integration:** In the Draft Constitution Dr. Ambedkar prescribed single citizenship, a single judiciary and uniformity in fundamental Laws to integrate Indian society which was not only divided into caste and class, but also into regions, religions, languages, traditions and cultures. Therefore, a **strong**

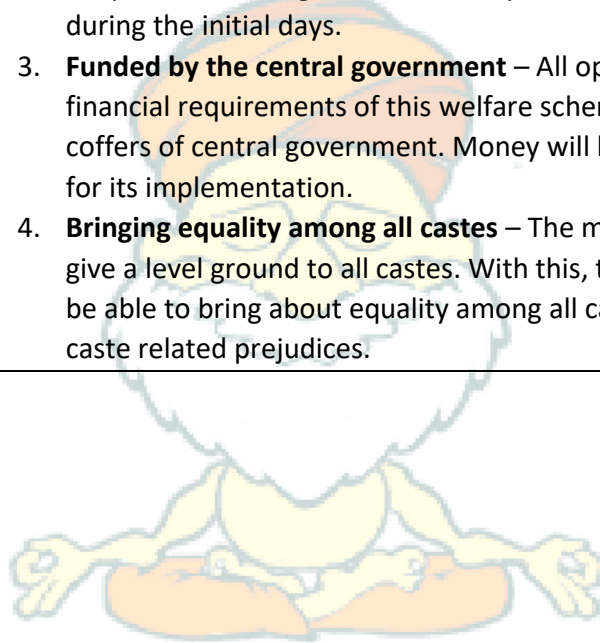


**Centre was indispensable to maintain territorial integrity** and administrative discipline.

**Dr Ambedkar said** – power is one thing, wisdom is quite another thing. When deciding the destiny of nations, dignities of people, dignities of leaders and dignities of parties ought to count for nothing. ***The dignity of the country should count for everything.***

**Note: Dr. Ambedkar Scheme for Social Integration through Inter-Caste Marriages (dalit)**

1. **Encouraging the practice of inter-caste marriages** – Indian society can only develop and progress if the curse of caste inequality is removed forever. The implementation of this program is a step towards achieving this goal.
2. **Assisting young couples with money** – Couples who opt for inter-caste are generally shunned by their families due to the rigidity of the caste system in India. They often face hardships, but with this grant, these couples will no longer have to worry about facing financial adversity during the initial days.
3. **Funded by the central government** – All operational activities and financial requirements of this welfare scheme will be met for the coffers of central government. Money will be sent to each state or UT for its implementation.
4. **Bringing equality among all castes** – The main aim of this scheme is to give a level ground to all castes. With this, the central government will be able to bring about equality among all castes, thereby eliminating caste related prejudices.



## SCIENCE AND TECHNOLOGY

<b>TRAI's spectrum recommendations</b>	<p><b>Context:</b> TRAI has recommended a sharp 36 per cent cut in the pan-India reserve prices for 3300-3670 MHz, which will be used for 5G services, from <b>₹492 crore per MHz to ₹317 per MHz</b>.</p> <ul style="list-style-type: none"><li>• TRAI has also recommended a further cut of 40 per cent in the reserve price for 700MHz spectrum, compared to the 2021 auction. The 700 MHz spectrum went unsold both in the 2016 and 2021 auctions due to high reserve prices.</li><li>• The pan-India reserve prices for other existing spectrum bands (800MHz to 2500MHz) have also been slashed in the range of 24-49 per cent compared to 2021 auctions.</li></ul> <p><b>How significant is TRAI's recommendation on spectrum price?</b></p> <ul style="list-style-type: none"><li>• The recommendations set the ball rolling for India to adopt 5G services.</li><li>• The 3300-3670 Mhz band and the 700 Mhz band are crucial for 5G services.</li><li>• <b>5G rollout has been delayed in India</b> because the operators could not buy spectrum in the last round of auction due to the high reserve price.</li><li>• Therefore a 36-40 per cent cut in the reserve price should <b>attract operators to buy spectrum this time</b>.</li></ul> <p><b>What are TRAI's other proposals?</b></p> <ul style="list-style-type: none"><li>• TRAI has proposed to allow enterprises to take spectrum from the Government to run <b>captive private wireless networks (CPWN)</b>.</li><li>• This can be a gamechanger for enterprise communications as companies like TCS , Tata Motors and JSW Steel can take spectrum directly and manage their own network without relying on telecom operators.</li><li>• TRAI has recommended that the spectrum for the private networks can be assigned administratively on demand, through a widely publicised online portal-based process in a fair and transparent manner.</li><li>• It has also made provisions to allocate spectrum for <b>satellite-based broadband services</b>. This is important, given that a number of satellite players including Sunil Mittal-backed OneWeb and Elon Musk-backed StarLink are gearing up to launch services in India</li></ul> <p><b>Will the auctions see strong bidding this time?</b></p> <ul style="list-style-type: none"><li>• There are only two strong operators — Airtel and Reliance Jio — in the fray to buy spectrum.</li><li>• The overall auction may end at the reserve price because, apart from having just two players, there is more than an adequate supply of spectrum.</li><li>• Unlike in 2010, when the government had put a limited amount of spectrum for sale, this time the regulator has proposed more than 1 lakh Mhz of spectrum for auction.</li><li>• While Airtel and Jio are expected to acquire the airwaves for 5G services at these prices, it's not clear how Vodafone Idea will play it out.</li><li>• Things could change if Vodafone Idea is able to find a strategic investor</li></ul>
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in the next 2-3 months.

**How much money will the operators have to spend to buy spectrum?**

- Operators will have to be ready to **spend at least ₹35,000 crore** each to acquire pan-India 5G spectrum, going by the reserve price set by the telecom regulator.
- The operators will be eyeing spectrum in the 3500 Mhz band and the 700 Mhz band, but are likely to acquire more of the former since it is priced much lower — ₹320 crore per Mhz — compared with ₹3,900 crore per Mhz in the 3500Mhz band.
- An operator will need at least 100 Mhz of spectrum to offer any meaningful 5G services. This means that an operator will need at least ₹32,000 crore to acquire pan-India spectrum in the 3500 Mhz band.
- In addition, spectrum in the 700 Mhz band will be needed for high-density areas, where coverage will be crucial.

**What does all of this mean for consumers?**

- Consumers can expect to experience 5G services by the end of this year or early 2023.
- This will transform the wireless broadband market significantly as 5G brings higher speeds and lower latencies, which will enable services like telemedicine in addition to entertainment and video streaming.
- The advent of private enterprise networks and satellite broadband services will infuse competition in a sector that currently has only two strong players.
- So consumers, both retail and enterprise, will get more options for their communication needs.

**Conclusion**

A reduction in spectrum price will enable the government to sell at least some of the available spectrum. The economic growth that will come as a result of digital tools and 5G infrastructure will be the real gain.

**Connecting the dots:**

- [5G: Roadblocks & Way Ahead](#)
- [Parliamentary Committee and 5G](#)
- UK [shutting door on Huawei](#)

## INTERNATIONAL RELATIONS

### BIMSTEC after the Colombo summit

**Context:** The fifth summit of the regional grouping, the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) was held virtually in Colombo on March 30.

#### About BIMSTEC

- It is a regional organisation comprising seven Member States: five deriving from South Asia, including Bangladesh, Bhutan, India, Nepal, Sri Lanka and two from Southeast Asia, including Myanmar and Thailand.
- This sub-regional organisation came into being on 6 June 1997 through the Bangkok Declaration **(25th Anniversary in 2022)**
- Its member countries consist of 21.7% of the world's population with combined Gross Domestic Product (GDP) of USD 3.8 trillion (only 4% of the global GDP)

#### What were the key Highlights of the Summit?

- **BIMSTEC Charter** was the main outcome of the summit. It presents BIMSTEC as "an inter-governmental organization" with "legal personality."
  - It has an emblem, it has a flag.
  - It has a formally **listed purpose and principles** that it is going to adhere to.
- The grouping re-constituted and reduced the number of sectors of cooperation from the unwieldy 14 to a more manageable seven. Each member-state will serve as a lead for a sector
  - Trade, investment and development (Bangladesh);
  - Environment and climate change (Bhutan);
  - Security, including energy (India);
  - Agriculture and food security (Myanmar);
  - People-to-people contacts (Nepal);
  - Science, technology and innovation (Sri Lanka)
  - connectivity (Thailand).
- The summit participants adopted the Master Plan for Transport Connectivity applicable for 2018-2028. It lists 264 projects entailing a total investment of \$126 billion. Projects worth \$55 billion are under implementation.
- Three new agreements signed by member states, relating to mutual legal assistance in criminal matters, cooperation between diplomatic academies, and the establishment of a technology transfer facility.
- India will provide the (BIMSTEC) secretariat **USD 1 million US dollars to increase its operational budget.**
- The organisation decided to host a summit every two years

#### Challenges

- Despite signing a framework agreement for a comprehensive Free Trade Agreement (FTA) in 2004, BIMSTEC stands far away from this goal. Of the seven constituent agreements needed for the FTA, only two are in place as of now.
- The need for expansion of connectivity was stressed by one and all, but

	<p>when it comes to finalising legal instruments for coastal shipping, road transport and intra-regional energy grid connection, much work remains unfinished.</p> <ul style="list-style-type: none"> <li>• As security and economic development are interrelated, it is essential to ensure an equitable balance between the two pillars.</li> <li>• Thailand and India will need to be astute in managing Myanmar's engagement until the political situation there becomes normal.</li> </ul> <p><b>Way Ahead</b></p> <ul style="list-style-type: none"> <li>• BIMSTEC should focus more in the future on new areas such as the blue economy, the digital economy, and promotion of exchanges and links among start-ups and MSMEs.</li> <li>• Personal engagement of the political leadership should be stepped up.</li> <li>• In the medium term, an annual summit should be the goal, with an informal retreat built into its programme.</li> <li>• BIMSTEC needs greater visibility. India's turn to host the G20 leaders' summit in 2023 presents an opportunity. Perhaps all its members should be invited to the G20 summit as the chair's special guests.</li> </ul> <p><b>Connecting the dots:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Myanmar Political Crisis</a></li> <li>• <a href="#">Myanmar Coup</a></li> <li>• <a href="#">Reclaiming SAARC</a></li> </ul>
<p><b>India-Australia Economic Co-operation and Trade Agreement</b></p>	<p>Context: The India-Australia FTA negotiations first began in 2011 but they were suspended in 2015 as the talks were stuck over issues such as market access for dairy products in India and visa liberalisation for Indian professionals.</p> <ul style="list-style-type: none"> <li>• The negotiations were resumed in September 2021, and this time around things got done in a record time and the pact was signed in just over six months.</li> </ul> <p><b>How significant is the India-Australia FTA for bilateral trade?</b></p> <ul style="list-style-type: none"> <li>• The India-Australia FTA is the first trade agreement signed by India with a developed economy after more than a decade.</li> <li>• The pact is expected to give a big push to bilateral trade as it will not only eliminate or lower tariffs on a large number of goods but also address the <b>non-tariff barriers</b> such as technical barriers to trade, apart from sanitary and phytosanitary restrictions.</li> <li>• According to government estimates, <b>trade in goods is likely to almost double</b> to \$50 billion in five years from about \$27 billion at present.</li> <li>• As India is not part of any significant <b>regional trading bloc</b>, it is important for India to sign bilateral agreements, so that it does not lose out on preferential market share and weaken its export competitiveness.</li> <li>• India is hopeful that the FTA with Australia will <b>give a positive signal to other developed countries</b> such as the UK, Canada and the EU, who are already on the negotiating table for similar pacts with New Delhi. This would show that India means business and is ready to conclude such agreements fast if a balanced deal could be struck.</li> </ul> <p><b>Is the tariff reduction substantial for both sides?</b></p> <ul style="list-style-type: none"> <li>• The India-Australia FTA is an ambitious pact with significant</li> </ul>



commitments to tariff cuts.

- Australia will provide zero-duty market access for 96.4 per cent value of Indian exports (98 per cent of tariff lines) on the first day of implementation of the agreement.
- Exports of several labour-intensive sectors, currently facing import duty of 4-5 per cent in Australia, will gain from the immediate duty-free access.
  - These include most textiles and apparel, a few agricultural and fish products, leather, footwear, furniture and sports goods, jewellery, engineering goods, and selected pharmaceuticals and medical devices.
- Tariffs on the remaining 113 tariff lines, amounting to 3.6 per cent of India's exports, will be phased out in five years.
- Australia, too, will gain considerable market access in India with tariffs being eliminated on more than 85 per cent of the Australian goods exports immediately, rising to almost 91 per cent in over 10 years.
  - Tariffs on items such as wool, sheep meat, coal, alumina, metallic ores, and critical minerals will be immediately reduced to zero
  - On other products such as avocados, onions, cherries, shelled pistachios, macadamias, cashews in-shell, blueberries, raspberries, blackberries and currants, tariffs will be eliminated over the next few years.
  - Import duties will also be slashed on Australian wines, though not eliminated.

**Has India's sensitivities with respect to agriculture and dairy sectors been addressed?**

- India has managed to **completely shield its dairy sector** from any tariff reduction under the FTA while excluding most sensitive agriculture items such as chickpeas, walnut, pistachio nut, wheat, rice, bajra, apple, sunflowers seed oil and sugar.
- Other items in the exclusion list, where no concessions have been extended, include silver, platinum, jewellery, iron ore, and most medical devices.

**What are the provisions for services?**

- Both countries have decided to facilitate the recognition of professional qualifications, licensing, and registration procedures between professional services bodies.
- In a boost to Science, Technology, Engineering or Mathematics (STEM), and information and communications technology (ICT) sectors, the length of stay for an Indian student with a bachelor's degree with first-class honours in the areas will be extended from two to three years.
- Australia will also provide new access for young Indians to participate in working holidays in the country.

**Is there a plan to deepen this agreement in the future?**

- Yes. Both sides want to deepen the engagement and work towards a Comprehensive Economic Cooperation Agreement (CECA).

	<ul style="list-style-type: none"> <li>It has been agreed that within 75 days of the signing of the pact, a negotiating subcommittee will start negotiations on issues including other areas for market access for goods and services, a digital trade chapter, and a government procurement chapter to transform the FTA into a CECA.</li> </ul> <p><b>Connecting the dots:</b></p> <ul style="list-style-type: none"> <li><a href="#">CEPA between India and UAE</a></li> <li><a href="#">Western QUAD</a></li> <li><a href="#">QUAD (India-Australia-Japan-USA)</a></li> <li><a href="#">AUKUS</a></li> </ul>
<b>Indonesia's palm oil crisis</b>	<p><b>Context:</b> It's rare for any country that is the largest producer and exporter of a product to experience domestic shortages of the same product — so much so as to force its government to introduce price controls and curbs on shipments.</p> <p><b>Indonesia &amp; Palm Oil sector</b></p> <ul style="list-style-type: none"> <li>It has been estimated that Indonesia's palm oil production for 2021-22 (October-September) at 45.5 million tonnes (mt).</li> <li>That's almost 60% of the total global output and way ahead of the next bigger producer:</li> <li>Malaysia (18.7 mt). It is also the world's No. 1 exporter of the commodity, at 29 mt, followed by Malaysia (16.22 mt).</li> </ul> <p><b>Recent Crisis in Indonesia</b></p> <ul style="list-style-type: none"> <li>The country has seen domestic prices of branded cooking oil spiral, from around 14,000 Indonesian rupiah (IDR) to 22,000 IDR per litre between March 2021 and March 2022.</li> <li>On February 1, the Indonesian government imposed a ceiling on retail prices.</li> <li>The price caps, however, led to the product disappearing from supermarket shelves, amid reports of hoarding and consumers standing in long queues for hours to get a pack or two (14,000 IDR is less than \$1 or Rs 74).</li> <li>Besides domestic price controls, the government also made it compulsory for exporters to sell 20% of their planned shipments in the domestic market at pre-determined prices.</li> </ul> <p>How does one explain this conundrum — consumers unable to access or paying through the nose for a commodity in which their country is the preeminent producer and exporter?</p> <p>There are two possible reasons.</p> <ul style="list-style-type: none"> <li>The first has to do <b>supply disruptions</b> — manmade and natural — in other cooking oils, especially sunflower and soyabean.</li> <li>Ukraine and Russia together account for nearly 80% of the global trade in sunflower oil, quite comparable to the 90% share of Indonesia and Malaysia in palm.</li> <li>Russia's invasion of Ukraine on February 24, which is ongoing, has resulted in port closures and exporters avoiding Black Sea shipping routes.</li> <li>Sanctions against Russia have further curtailed trade in sunflower oil, the world's third most exported vegetable oil (12.17 mt, according to</li> </ul>

	<p>USDA estimates for 2021-22) after palm (49.63 mt) and soyabean (12.39 mt).</p> <ul style="list-style-type: none"> <li>• Supply tightness in sunflower and soyabean — from war and drought, respectively — has, in turn, transmitted to palm oil</li> <li>• <b>The second factor is linked to petroleum</b>, more specifically the use of palm oil as a bio-fuel. <ul style="list-style-type: none"> <li>○ The Indonesian government has, since 2020, made 30% blending of diesel with palm oil mandatory as part of a plan to slash fossil fuel imports.</li> <li>○ Palm oil getting increasingly diverted for bio-diesel is leaving less quantity available, both for the domestic cooking oil and export market.</li> <li>○ Such diversion has become all the more attractive with Brent crude prices hardening post the Ukrainian war — to a closing high of \$127.98 per barrel on March 8 and staying elevated at \$100-plus levels.</li> </ul> </li> </ul> <p><b>What is the impact on India?</b></p> <ul style="list-style-type: none"> <li>• India is the world's biggest vegetable oils importer. Out of its annual imports of 14-15 mt, the lion's share is of palm oil (8-9 mt), followed by soyabean (3-3.5 mt) and sunflower (2.5).</li> <li>• Indonesia has been India's top supplier of palm oil, though it was overtaken by Malaysia in 2021-22.</li> <li>• India will have to get used to lower supplies from Indonesia.</li> </ul>
<p><b>Moscow's suspension from U.N. Human Rights Council</b></p>	<p><b>Context:</b> Russia's membership to the Human Rights Council (HRC), to which it was elected in 2020, was suspended recently after the United Nations General Assembly (UNGA) voted, 93 to 24, with 58 abstentions, including India, to adopt a resolution suspending Moscow from the UN body.</p> <ul style="list-style-type: none"> <li>• The resolution was proposed by a group of countries that included Ukraine, the U.S., the EU, several Latin American countries and required a two-thirds majority of those present and voting for adoption.</li> <li>• Abstentions do not count in the tally of those 'present and voting'. India abstained for reasons of "substance and process".</li> <li>• The only time a member state was suspended from the Geneva-based body was Libya in 2011.</li> <li>• The HRC is a UN body, comprising 47 states, that describes itself as "responsible for the promotion and protection of all human rights around the globe". Countries are elected for three-year terms.</li> </ul> <p><b>What was the reason given and Russia's response?</b></p> <ul style="list-style-type: none"> <li>• Russia has faced immense criticism after bodies were found in the streets of Bucha, a northern Ukrainian town, from where Russian troops withdrew</li> <li>• According to the Office of the High Commissioner for Human Rights, at least 1,611 civilians have been killed and 2,227 injured in Ukraine since the war began.</li> <li>• Russia claims it to be "staged events and fakes".</li> </ul> <p><b>What is the significance of the suspension?</b></p> <ul style="list-style-type: none"> <li>• When Russia began the invasion, President Vladimir Putin had said the</li> </ul>

	<p>main objectives of what he called the “special military operation” were the “demilitarisation and denazification” of Ukraine.</p> <ul style="list-style-type: none"> <li>• Considering the three-front war Russia launched, it was evident that Moscow wanted to meet its real objectives quickly. But Ukraine’s fierce resistance, especially in the north, has changed the course of the conflict, which now looks like a war of attrition, focusing on Ukraine’s east.</li> <li>• However, Russia cannot evade its responsibility for these losses.</li> <li>• While the truth should be established in an independent UN-monitored probe, there is no doubt that civilians were targeted.</li> </ul> <p><b>What lies ahead?</b></p> <ul style="list-style-type: none"> <li>• Now, both Ukraine and Russia are in difficult situations. The Ukrainians, with military and financial aid from the West, have pushed back in the north, but lost territories in the east and the south.</li> <li>• Given the power imbalance, it is unlikely that Ukraine can regain the lost territories.</li> <li>• Russia now seems to have been bogged down in the battlefield, with international criticism mounting on its war conduct</li> <li>• What is in the best interest of all parties is a cessation of hostilities and a diplomatic solution started with Istanbul talks.</li> <li>• The investigation into the civilian killings should go on in parallel and not derail the diplomatic process.</li> </ul> <p><b>What did Istanbul talks entail?</b></p> <p>The Istanbul talks had opened a path towards peace. According to the Ukrainian proposals, President Zelensky has agreed to</p> <ul style="list-style-type: none"> <li>• accept neutrality in return for multilateral security assurances.</li> <li>• Ready for a consultation period of 15 years for Crimea, which Russia annexed in 2014, and</li> <li>• discuss the status of the self-declared Donetsk and Luhansk republics in a summit with Mr. Putin.</li> </ul> <p>It was after Istanbul proposals that the Russians announced their pull back from the north. But the Bucha killings appear to have clouded the peace process.</p> <p><b>Conclusion</b></p> <ul style="list-style-type: none"> <li>• Russia should follow up on its words with more demonstrable actions to end the hostilities. The war has damaged its economy and its reputation as a great power, while causing unspeakable losses and destruction in Ukraine.</li> <li>• The most important message from the UN body to Moscow is that it should cease the fire and take the path of diplomacy immediately.</li> </ul> <p><b>Connecting the dots:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">India and UNSC Vote on Ukraine Crisis</a></li> <li>• <a href="#">Russia-Ukraine war and Food Crisis</a></li> </ul>
<p><b>Sri Lanka: Trouble in Paradise</b></p>	<p><b>Context:</b> With long lines for fuel, cooking gas, essentials in short supply and long hours of power cuts, the public has been suffering for months. The raging public anger spilled onto the streets last week leading to nationwide protests, and a subsequent declaration of public emergency in the island nation by President Gotabaya Rajapaksa.</p>

- In the days that followed, the President removed his brother and Finance Minister Basil Rajapaksa from his post.
- Facing the heat from public, all Cabinet ministers resigned en masse on 3<sup>rd</sup>
- On 5<sup>th</sup> April, the new finance minister Ali Sabry resigned – just a day after being sworn in.
- The ruling coalition, headed by President Gotabaya Rajapaksa, lost its majority in Parliament as proceedings began on 5<sup>th</sup> for the first time since the state of Emergency was imposed.
- At least 41 lawmakers walked out of the alliance against the backdrop of nationwide protests.

**Factors that led to severe economic distress:**

- **Pandemic led to job losses and reduced incomes.** All key foreign exchange earning sectors, such as exports and remittances, along with tourism, were brutally hit.
- **Declining Foreign Reserves:** Fears of a sovereign default rose by the end of 2021, with the country's foreign reserves decreasing to \$1.6 billion. But Sri Lanka managed to keep its unblemished foreign debt servicing record.
- **Government Inaction:** The lack of a comprehensive strategy to respond to the crisis then, coupled with certain policy decisions including the government's abrupt switch to organic farming widely deemed "ill-advised", further aggravated the problem.
- **Sri Lanka's Fertiliser Ban:** In 2021, all fertiliser imports were completely banned and it was declared that Sri Lanka would become a 100% organic farming nation overnight.
- **Shut-down:** Garment factories and tea estates could not function, as infections raged in clusters.
- **Fuel shortage:** Sri Lanka is also facing five-hour rolling electricity blackouts as thermal generators have run out of fuel.
- **Food hoarding:** The government declared emergency regulations for the distribution of essential food items. It put wide import restrictions to save dollars which in turn led to consequent market irregularities and reported hoarding.
- **Downgraded rating:** Three international rating agencies have downgraded the island since late last year, on fears it may not be able to service its \$51 billion sovereign debt.
- **Spiralling debt:** The debt issue did not begin in 2020. Since the end of the ethnic war in 2009, Sri Lanka was struggling to keep its economy afloat.

**Lessons learnt from crisis:**

- It would be best to raise domestic tax revenue and shrink government expenditure to limit borrowing, particularly sovereign borrowing from external sources.
- Thus, there is a need for ambitious fiscal consolidation based on high-quality revenue measures, raising income tax.
- The country's heavy dependence on imports for essential goods should be reduced like sugar, pharmaceuticals, fuel, pulses and cereals



	<p>worsened the crisis.</p> <p><b>India's Response</b></p> <p>India recently extended a <b>\$1 billion credit facility</b> to Sri Lanka to assist the island nation through its worst foreign exchange BOP crisis and enable it to procure food, medicines and other essential items.</p> <p><b>Conclusion</b></p> <ul style="list-style-type: none"> <li>• There is a need to step up our people-centric developmental activities while scrupulously staying clear of any interference in Colombo's domestic affairs.</li> <li>• However, nurturing the 'Neighbourhood First' policy with Sri Lanka is important for India to preserve its strategic interests in the Indian Ocean region.</li> </ul> <p><b>Value Addition</b></p> <p><i>What is a credit facility?</i></p> <ul style="list-style-type: none"> <li>• A credit facility is a type of loan.</li> <li>• It allows the borrowing party to take out money over an extended period of time rather than reapplying for a loan each time it needs money.</li> </ul> <p><i>What is Line of Credit (LOC)?</i></p> <ul style="list-style-type: none"> <li>• A line of credit (LOC) is a preset borrowing limit that can be tapped into at any time.</li> <li>• The borrower can take money out as needed until the limit is reached, and as money is repaid, it can be borrowed again in the case of an open line of credit.</li> </ul> <p><b><u>Can you answer the following question?</u></b></p> <ul style="list-style-type: none"> <li>• How did Sri Lanka get here? What triggered the crisis of this scale and what is the way out of this dire situation?</li> </ul>
<p><b>India and the U.K.:</b> <b>Crafting a new legacy</b></p>	<p><b>Context:</b> As India seeks a new role for itself in the evolving global order as a 'leading power' and the U.K. recalibrates its foreign policy post-Brexit, there is a huge opportunity in strengthening India-U.K. ties.</p> <p><b>Ukraine Crisis and its impact on India-UK ties</b></p> <ul style="list-style-type: none"> <li>• UK has emphasised on countering Russian aggression and reducing global strategic dependence on Russia.</li> <li>• UK has underlined the importance of democracies working cohesively to deter aggressors (like Russia).</li> <li>• However, India has stood its ground and maintained its relationship with Russia without bowing to the pressures of UK (&amp; USA)</li> </ul> <p><b>Growing India-UK ties</b></p> <ul style="list-style-type: none"> <li>• Conclusion of a Comprehensive Strategic Partnership on May 4, 2021. The agreement also established a <b>2030 Roadmap for India-U.K. relations</b>, that aims to double bilateral trade between India and the U.K. by 2030.</li> <li>• A new <b>joint cyber security programme</b> is set to be announced, which aims to protect online infrastructure in India and the U.K. as both parties attempt to carry out joint exercises to combat threats from cyber criminals and ransomware.</li> <li>• India and the U.K. also plan to hold the first <b>Strategic Tech Dialogue</b>, a</li> </ul>

	<p>ministerial-level summit on emerging technologies.</p> <ul style="list-style-type: none"> <li>• U.K. and India have agreed to strengthen their cooperation in the maritime domain as the U.K. will join India's Indo-Pacific Oceans Initiative and become a major partner on maritime security issues</li> <li>• India is a key strategic partner for the U.K. in the Indo-Pacific both in terms of market share and defence, as was underscored by the signing of the <b>Defence and International Security Partnership</b> between India and the U.K. in 2015.</li> <li>• The U.K. has also confirmed <b>£70 million</b> of British International Investment funding to support the usage of renewable energy in India, which will help in building renewable energy infrastructure</li> <li>• In January 2022, India and the U.K. managed to conclude the first round of talks for an India–U.K. Free Trade Agreement. India and the U.K. are expected to sign an <b>early harvest trade deal</b> by 2022.</li> <li>• The newer areas of cooperation — namely, fintech, market regulation, sustainable and green finance, and cyber security — have emerged as the new frontiers of this engagement.</li> <li>• The top leadership in the two nations remain committed to building a lasting partnership and in the process, older <b>issues like Pakistan have become marginal</b> in the bilateral discourse.</li> </ul> <p><b>Conclusion</b> New geopolitical realities demand a new strategic vision from London and New Delhi, which should seize the moment &amp; strengthen the bilateral relationship.</p> <p><b>Connecting the dots:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">CEPA between India and Australia</a></li> <li>• <a href="#">QUAD (India-Australia-Japan-USA)</a></li> <li>• <a href="#">AUKUS</a></li> <li>• <a href="#">CEPA between India and UAE</a></li> <li>• <a href="#">Western QUAD</a></li> </ul>
<p><b>Weapons of Mass Destruction Act</b></p>	<p><b>Context:</b> On April 5, 2022, the Weapons of Mass Destruction (WMD) and their Delivery Systems (Prohibition of Unlawful Activities) Amendment Bill, 2022 was introduced in the Lok Sabha.</p> <ul style="list-style-type: none"> <li>• The Bill which amends the 2005 Act was passed the next day.</li> </ul> <p><b>What was the purpose of the original WMD Act?</b></p> <ul style="list-style-type: none"> <li>• The WMD and their Delivery Systems (Prohibition of Unlawful Activities) Act came into being in July <b>2005</b>.</li> <li>• The act prohibits the unlawful manufacture, transport, or transfer of WMD (chemical, biological and nuclear weapons) and their means of delivery.</li> <li>• It instituted penalties for contravention of these provisions such as imprisonment for a term not less than five years (extendable for life) as well as fines.</li> <li>• The Act was passed <b>to meet an international obligation</b> enforced by the UN Security Council Resolution (UNSCR) 1540 of 2004.</li> </ul> <p><b>What is the UNSCR 1540?</b></p> <ul style="list-style-type: none"> <li>• In April 2004 the UN Security Council adopted resolution 1540 to address the <b>growing threat of non-state actors gaining access to WMD</b></li> </ul>

**material**, equipment or technology to undertake acts of terrorism.

- In order to address this challenge to international peace and security, UNSCR 1540 established **binding obligations on all UN member states** under Chapter VII of the UN Charter.
- Nations were mandated to take and enforce effective measures against proliferation of WMD, their means of delivery and related materials to non-state actors.
- UNSCR 1540 enforced three primary obligations upon nation states —
  - to not provide any form of support to non-state actors seeking to acquire WMD, related materials, or their means of delivery;
  - to adopt and enforce laws criminalising the possession and acquisition of such items by non-state actors;
  - to adopt and enforce domestic controls over relevant materials, in order to prevent their proliferation.
- India initially had reservations on enacting laws mandated by the UNSCR. However, given the danger of WMD terrorism that India faces in its neighbourhood it supported the Resolution and enacted the 2005 Act.

**What has the Amendment added to the existing Act?**

- The Amendment **expands the scope** to include **prohibition of financing** of any activity related to WMD and their delivery systems.
- To prevent such financing, the Central government shall have the power to freeze, seize or attach funds, financial assets, or economic resources of suspected individuals (whether owned, held, or controlled directly or indirectly).

**Why was this Amendment necessary?**

- UNSCR 1540 undergoes periodic reviews to determine the success of its implementation and to identify gaps in enforcement.
- In one such review undertaken in 2016, it was concluded that the risk of proliferation to non-state actors is increasing due to rapid advances in science, technology, and international commerce. The statement of objects and reasons of the 2022 Bill echoes the same.
- Two specific gaps are being addressed —
  - First, as the relevant organisations at the international level, such as the Financial Action Task Force have expanded their controls on the financing of WMD activities, India's own legislation has been harmonised to align with international benchmarks.
  - Secondly, with advancements in technologies, new kinds of threats (drones, unauthorised use in biomedical labs) have emerged that were not sufficiently catered for in the existing legislation. Therefore, the Amendment keeps pace with evolving threats.

**What more should India do?**

- India's responsible behaviour and actions on non-proliferation are well recognised.
- It has a strong statutory national export control system and is committed to preventing proliferation of WMD.

	<ul style="list-style-type: none"> <li>○ This includes transit and trans-shipment controls, retransfer control, technology transfer controls, brokering controls and end-use based controls.</li> <li>• Every time India takes additional steps to fulfil new obligations, it must showcase its legislative, regulatory and enforcement frameworks to the international community.</li> <li>• At the domestic level, this Amendment will have to be enforced through proper outreach measures to industry and other stakeholders to make them realise their obligations under the new provisions.</li> <li>• It is also necessary that India keeps WMD security in international focus. There is no room for complacency. Even countries which do not have WMD technology have to be sensitised to their role in the control framework to prevent weak links in the global control system.</li> <li>• India can offer help to other countries on developing national legislation, institutions and regulatory framework through the IAEA (International Atomic Energy Agency) or on bilateral basis.</li> </ul> <p><b>Could the Amendment become troublesome to people on account of mistaken identity?</b></p> <ul style="list-style-type: none"> <li>• In the discussion on the Bill in Parliament, some members expressed concern on whether the new legislation could make existing business entities or people in the specific sector susceptible to a <b>case of mistaken identity</b>.</li> <li>• The External Affairs Minister, however, assured the House that such chances were minimal since identification of concerned individuals/entities would be based on a long list of specifics.</li> </ul> <p><b>What is the international significance of these legislation? What is in it for India?</b></p> <ul style="list-style-type: none"> <li>• Domestic legislations and international measures must be agile and amenable to modifications in keeping with the changing tactics of non-state actors.</li> <li>• Sharing of best practices on legislations and their implementation can enable harmonisation of global WMD controls.</li> <li>• It is in India's interest to facilitate highest controls at the international level and adopt them at the domestic level.</li> <li>• Having now updated its own legislation, India can demand the same of others, especially from those in its neighbourhood that have a history of proliferation and of supporting terrorist organisations.</li> </ul> <p><b>Connecting the dots:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">The status of the Nuclear Non-Proliferation Treaty</a></li> <li>• <a href="#">Nuclear Arms Race</a></li> <li>• Indo-US nuclear deal</li> <li>• <a href="#">AUKUS and India</a></li> <li>• Nuclear Supplier Group &amp; India</li> </ul>
<p><b>Nepal's Forex Challenges</b></p>	<p><b>Context:</b> In an unusual development, the government of Nepal sacked the head of its central bank accusing him of leaking sensitive information and for failing to perform his duties.</p> <ul style="list-style-type: none"> <li>• The decision, which violates the autonomy of Nepal Rastra Bank (NRB),</li> </ul>

was taken in the backdrop of tense relations between Finance Minister and NRB head over how to address Nepal's crisis of falling forex reserves.

- It was reported that the country's forex reserves have plummeted by 18.5% to \$9.58 billion in March from \$11.75 billion in July 2021. The current forex reserves are enough to pay the government's import bills only for the next seven months or so.

#### How bad is the situation?

- Nepal's economy is highly **dependent on imports** as the country buys a range of merchandise goods apart from fuel.
- Nepal's forex reserves situation appears healthy as of now as the country, unlike Sri Lanka, is **not burdened by external debt**.
- There are, however, concerns that the lower middle income economy is being battered repeatedly by external factors and that may precipitate a crisis sometime soon.
- Nepal which is blessed with one of the finest **tourism sectors** in South Asia, because of the Himalayan mountain range, suffered during the **COVID-19 pandemic** as global tourist flow fell.
- This was followed by the global **energy crisis** caused by Russia's invasion of Ukraine. This has put extraordinary **inflationary pressure on the economy**
  - It is expected that if current trends continue then double-digit inflation will hit Nepal by June/July 2022 as the current rate of inflation is 7.14%.
- All economic indicators are declining and the real shortfall in forex reserves is because of the **decline in foreign remittances** which suffered during the pandemic when the Nepalese work force abroad suffered job losses.
- The situation has not stabilised and Nepal's forex reserves continue to slide. The prevailing weak economic indicators mean that Nepal is **spending from its forex reserves faster than it can save**.
- Nepal has enough forex for buying merchandise just over seven months. This does not look good as Nepal also has a **balance of trade crisis** with major partners.

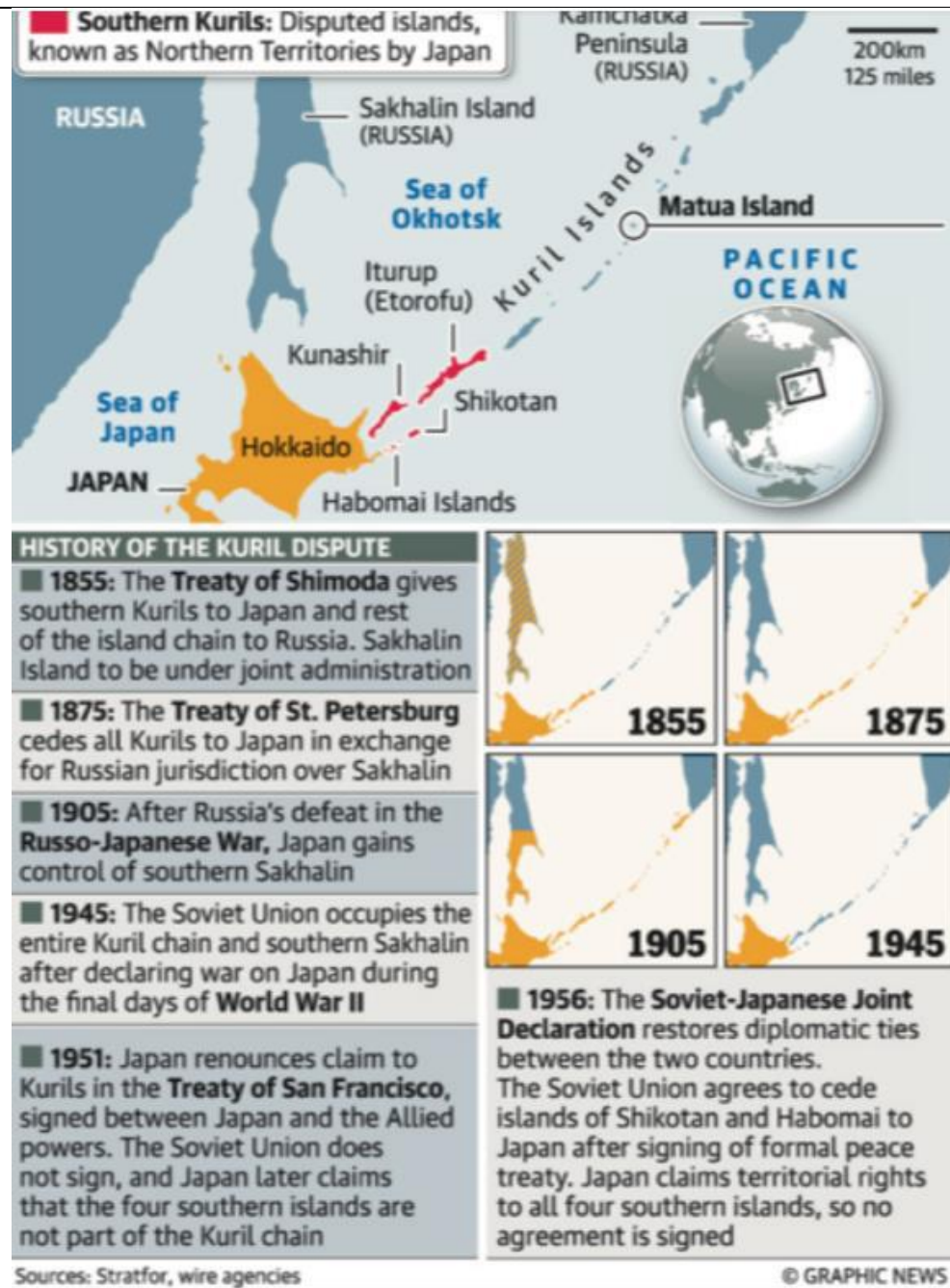
#### Can the energy scene in Nepal escalate economic woes?

- Nepal's primary supplier of energy is Indian Oil Corporation (IOC). Nepal Oil Corporation (NOC) pays IOC in two instalments every month, on the 8th and the 23rd.
- The NOC has been in crisis for months as high global prices depleted the company's savings, prompting it to approach the government for a lifeline.
- The Government of Nepal has agreed to provide NOC the necessary amount to continue supplies from IOC. For the time being sufficient funds have been allocated to NOC to pay IOC for the next instalment.
- However, NOC's financial status makes it unattractive for banks and as a result the public sector company does not enjoy confidence in the market.
- There is a need to protect NOC from the effects of the current energy

	<p>crisis in the world which has erupted after the Ukraine crisis.</p> <ul style="list-style-type: none"> <li>Nepal's history shows that any uncertainty regarding fuel can trigger serious internal problems as was visible during the <b>2015-16 blockade when disruption of fuel supply from India</b> caused distress in Nepal.</li> </ul> <p><b>Will the economic situation have an impact on upcoming elections?</b></p> <ul style="list-style-type: none"> <li>Nepal will hold local level polls on May 13 which will be followed by general elections towards the end of 2022.</li> <li>The election process requires considerable financial allocation and Nepal has received support in the past for elections from international donors like the USAID.</li> <li>These donors help in carrying out pre-election staff training and logistics that are part of any democratic process.</li> <li>But there are uncertainties about such international support because of the difficulties that most of the traditional partners are facing.</li> <li>Election Commission of Nepal will require at least 10 billion Nepali rupees for the election process and that will mean diversion of a large amount of resources for the democratic process.</li> </ul> <p><b>Connecting the dots:</b></p> <ul style="list-style-type: none"> <li><a href="#">Sri Lanka Economic Crisis</a></li> <li><a href="#">India-Nepal border dispute: Kalapani and Lipulekh</a></li> <li><a href="#">India-Nepal relations needs a reset</a></li> </ul>
<p><b>U.K.-Rwanda asylum plan</b></p>	<p><b>Context:</b> Since 2018, there has been a marked rise in the number of refugees and asylum seekers that undertake dangerous crossings between Calais in France and Dover in England. This has caused immigration crisis for conservative UK government.</p> <ul style="list-style-type: none"> <li>The number of such persons rose from 297 in 2018, to 28,431 in 2021. Most such migrants and asylum seekers hail from war-torn countries like Sudan, Afghanistan, and Yemen, or developing countries like Iran and Iraq.</li> </ul> <p><b>What is the UK-Rwanda Deal signed in April 2022?</b></p> <ul style="list-style-type: none"> <li>Under this deal, Rwanda will <b>commit to taking in asylum seekers who arrive in the U.K.</b> on or after January 1, 2022, using "illegally facilitated and unlawful cross border migration."</li> <li>Rwanda will function as the <b>holding centre</b> where asylum applicants will wait while the Rwandan government makes decisions about their asylum and resettlement petitions in Rwanda.</li> <li>The rationale for the deal, according to the U.K., is to <b>combat "people smugglers"</b>, who often charge exorbitant prices from vulnerable migrants to put them on boats from France to England that often lead to mass drownings.</li> <li>Rwanda will, on its part, accommodate anyone who is not a minor and does not have a criminal record.</li> <li>A migrant in the U.K. will be given five days' notice to pursue an appeals process, failing which they will be given a <b>one-way ticket to Rwanda</b> and will become the responsibility of the Rwandan government.</li> <li><b>The deal is "uncapped"</b>, i.e., there is no upper limit to how many</li> </ul>



	<p>migrants will be sent to Rwanda for the five years that the deal will remain in place.</p> <ul style="list-style-type: none"> <li>• The U.K. <b>will pay Rwanda £120 million</b> as part of an “economic transformation and integration fund” and will also bear the operational costs for each migrant. <ul style="list-style-type: none"> <li>◦ Currently, the U.K. pays £4.7 million per day to accommodate approximately 25,000 asylum seekers. At the end of 2021, this amounted to £430 million annually with a projected increase of £100 million in 2022</li> </ul> </li> </ul> <p><b>What are the criticisms of the deal?</b></p> <ul style="list-style-type: none"> <li>• The Rwanda Deal is predicted to reduce the costs of UK by outsourcing the hosting of such migrants to a third country. However, opposition argue that the burden of such costs will eventually <b>fall on the British taxpayer</b>.</li> <li>• The deal <b>doesn't outline the economic right to work</b>, access to healthcare or any financial support provided by the Rwandan government to relocated persons.</li> <li>• It remains unclear if the Rwanda Deal will solve the problem of unlawful crossings. Evidence from similar experiences indicates that such policies <b>do not fully combat “people smuggling”</b>.</li> <li>• People who are already vulnerable when they attempted dangerous sea-crossings <b>will become more exposed</b> and <b>vulnerable under detention</b>.</li> <li>• Rwanda doesn't have remarkable human rights record. Government critics have been silenced or sentenced to prison. Further, Rwanda's similar offshoring deal with Israel was scrapped in 2019.</li> <li>• The Rwanda Deal is an instrument that will certainly generate revenue for the Rwandan government. It also transfers a British issue onto a less developed nation in order to pander to the anti-immigrant sentiments in the U.K.</li> </ul> <p><b>Connecting the dots:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">ICJ's ruling on Myanmar Refugee Crisis</a></li> <li>• <a href="#">India's Refugee Problem</a></li> </ul>
<b>Kuril Islands Dispute: Russia &amp; Japan</b>	<p><b>Context:</b> The Russian invasion of Ukraine seems to have brought to the forefront some other disputes that Russia has with the West's allies.</p> <ul style="list-style-type: none"> <li>• On April 22, Japan's Diplomatic Bluebook for 2022 described the Kuril Islands (which Japan calls the Northern Territories and Russia as the South Kurils) as being under Russia's “illegal occupation”.</li> <li>• This is the first time in about two decades that Japan has used this phrase to describe the dispute over the Kuril Islands. Japan had been using softer language since 2003, saying that the dispute over the islands was the greatest concern in Russia-Japan bilateral ties.</li> </ul>



#### What are the Kuril Islands/ Northern Territories?

- These are a set of four islands situated between the Sea of Okhotsk and the Pacific Ocean near the north of Japan.
- Both Moscow and Tokyo claim sovereignty over them though the islands have been **under Russian control** since the end of World War II.
- The Soviet Union had seized the islands at the end of World War II and by 1949 had **expelled its Japanese residents**.
- Tokyo claims that the disputed islands have been part of Japan since the early 19th century.

#### What lies behind the dispute?

- According to Tokyo, Japan's sovereignty over the islands is confirmed by several treaties like
  - Shimoda Treaty of 1855
  - 1875 Treaty for the exchange of Sakhalin for the Kuril Islands

	<p>(Treaty of St. Petersburg)</p> <ul style="list-style-type: none"> <li>○ Portsmouth Treaty of 1905 was signed after the Russo-Japanese war of 1904-05 which Japan had won.</li> <li>• Russia, on the other hand, claims the Yalta Agreement (1945) and the Potsdam Declaration (1945) as proof of its sovereignty and argues that the San Francisco Treaty of 1951 is legal evidence that Japan had acknowledged Russian sovereignty over the islands. <ul style="list-style-type: none"> <li>○ Under Article 2 of the San Francisco treaty, Japan had “renounced all right, title and claim to the Kuril Islands.”</li> </ul> </li> <li>• However, Japan argues that the San Francisco Treaty cannot be used here as the <b>Soviet Union never signed the peace treaty</b>. Japan also refuses to concede that the four disputed islands were in fact part of the Kuril chain.</li> <li>• In fact, Japan and Russia are <b>technically still at war</b> because they have not signed a peace treaty after World War II.</li> <li>• In 1956, during Japanese Prime Minister Ichiro Hatoyama’s visit to the Soviet Union, it was suggested that two of the four islands would be returned to Japan once a peace treaty was signed.</li> <li>• However, persisting differences prevented the signing of a peace treaty though the two countries signed the Japan-Soviet Joint Declaration, which restored diplomatic relations between the two nations.</li> <li>• The <b>Soviet Union later hardened its position</b>, even refusing to recognise that a territorial dispute existed with Japan.</li> <li>• It was only in 1991 during Mikhail Gorbachev’s visit to Japan that the USSR recognised that the islands were the subject of a territorial dispute.</li> </ul> <p><b>Have there been attempts at resolution?</b></p> <ul style="list-style-type: none"> <li>• Since 1991, there have been many attempts to resolve the dispute and sign a peace treaty. The most recent attempt was under Prime Minister Shinzo Abe when joint economic development of the disputed islands was explored.</li> <li>• In fact, both countries had agreed to have bilateral negotiations based on the 1956 Japan-Soviet Joint Declaration.</li> <li>• Russia was even willing to give back two islands, the Shikotan Island and the Habomai islets, to Japan after the conclusion of a peace treaty as per the 1956 declaration.</li> <li>• Japan’s attempt to improve ties with Russia was driven by its need to <b>diversify energy sources</b> and Russia by its need to diversify its basket of buyers and bring in foreign investments.</li> <li>• But <b>nationalist sentiments</b> on both sides prevented the resolution of the dispute.</li> </ul> <p><b>What next?</b></p> <ul style="list-style-type: none"> <li>• Soon after the Russian invasion of Ukraine, Japan made its unhappiness with Russia clear with its Foreign Minister saying that Russia had “occupied” the southern part of the Kuril Islands, thereby violating international law.</li> <li>• Japan has been among the most steadfast of Western allies in denouncing Russian aggression and punishing it with sanctions.</li> </ul>
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	<ul style="list-style-type: none"> <li>• The recent statements will further damage relations between the two countries. Japan has probably been spurred by its fears of a <b>Russia-China alliance</b> as Japan itself has territorial disputes and an uneasy history with China.</li> <li>• Secondly, Japan might have felt that this is a <b>good opportunity to further isolate Russia</b> and paint it as a “habitual offender” of international law.</li> <li>• Finally, Tokyo might have been prompted to take this position as it feels that the invasion of Ukraine proves that <b>getting back the Kuril Islands is a lost cause</b>.</li> <li>• Japan’s policy shift on the Kuril Islands will only embitter bilateral relations with Russia while advancing the possibility of its two neighbours, China and Russia, coming together against it.</li> </ul> <p><b>Connecting the dots:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Russia- Ukraine crisis</a></li> </ul>
<b>EU’s Digital Services Act (DSA)</b>	<p><b>Context:</b> The European Parliament and European Union (EU) Member States announced that they had reached a political agreement on the Digital Services Act (DSA), landmark legislation to force big Internet companies to act against disinformation and illegal and harmful content and to protect internet users.</p> <ul style="list-style-type: none"> <li>• The proposed Act will work in conjunction with the <a href="#">EU’s Digital Markets Act (DMA)</a> which was approved in March 2022.</li> </ul> <p><b>Key provision of DSA</b></p> <p>Instead of letting platforms decide how to deal with abusive or illegal content, the DSA will lay down specific rules and obligations for intermediary companies to follow.</p> <ul style="list-style-type: none"> <li>• <b>Faster Removal:</b> Online platforms and intermediaries such as Facebook, Google, YouTube, etc will have to add “new procedures for faster removal” of content deemed illegal or harmful.</li> <li>• <b>Informed decisions:</b> Further, these platforms will have to clearly explain their policy on taking down content; users will be able to challenge these takedowns as well.</li> <li>• <b>Flagging Illegal content:</b> Platforms will need to have a clear mechanism to help users flag content that is illegal. Platforms will have to cooperate with “trusted flaggers”.</li> <li>• <b>Systemic Analysis:</b> The DSA adds “an obligation for very large digital platforms and services to analyse systemic risks they create and to carry out risk reduction analysis”. This audit for platforms like Google and Facebook will need to take place every year.</li> <li>• <b>Independent Audit:</b> The Act proposes to allow independent vetted researchers to have access to public data from these platforms to carry out studies to understand these risks better</li> <li>• <b>Ban on Dark Patterns:</b> The DSA proposes to ban ‘Dark Patterns’ or “misleading interfaces” that are designed to trick users into doing something that they would not agree to otherwise. This includes forcible pop-up pages, giving greater prominence to a particular choice, etc.</li> <li>• <b>Crisis Situation:</b> The DSA incorporates a new crisis mechanism clause — it refers to the Russia-Ukraine conflict — which will be activated by the</li> </ul>

	<p>Commission and be in force for 3 months where special measures will be imposed</p> <ul style="list-style-type: none"> <li>• <b>Transparency:</b> It also proposes “transparency measures for online platforms on a variety of issues, including on the algorithms used for recommending content or products to users”.</li> <li>• <b>Protection of Minors:</b> The law proposes stronger protection for minors, and aims to ban targeted advertising for them based on their personal data.</li> <li>• <b>Consumer convenience:</b> Finally, it says that cancelling a subscription should be as easy as subscribing.</li> <li>• <b>Penal Provisions:</b> Penalties for breaching these rules could be huge — as high as 6% of the company’s global annual turnover.</li> </ul> <p><b>Does this mean that social media platforms will now be liable for any unlawful content?</b></p> <ul style="list-style-type: none"> <li>• It has been clarified that the platforms and other intermediaries will not be liable for the unlawful behaviour of users. So, they still have ‘safe harbour’ in some sense.</li> <li>• However, if the platforms are “aware of illegal acts and fail to remove them,” they will be liable for this user behaviour.</li> </ul> <p><b>Connecting the dots:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">EU’s Digital Market Act (DMA)</a></li> <li>• <a href="#">Dominance of Big Tech</a></li> <li>• <a href="#">New Social Media Code</a></li> <li>• Australia’s <a href="#">News Media Bargaining</a> Code</li> </ul>
<p><b>Russia’s gamble with Gas Supplies</b></p>	<p><b>Context:</b> Russian energy company Gazprom has stopped gas supplies to Bulgaria and Poland citing their failure to pay in roubles.</p> <ul style="list-style-type: none"> <li>• Poland and Bulgaria have accused Russia of breach of contract, according to which payments were to be made in euros and dollars only.</li> <li>• Towards the end of March, Russian President Vladimir Putin had signed a decree that from April 1, “unfriendly foreign buyers” would have to pay for gas supplies in roubles. He had also added that defaults would result in suspension of contracts.</li> </ul> <p><b>How will the stoppage of gas supplies affect Poland and Bulgaria?</b></p> <ul style="list-style-type: none"> <li>• The gas cuts do not immediately put the two countries in any dire trouble.</li> <li>• Russian gas deliveries to both Poland and Bulgaria were anyway expected to end later this year.</li> <li>• Poland, which gets <b>40% of its natural gas from Russia</b>, has been working on alternatives for many years.</li> <li>• In the immediate scenario, however, it will lose out on the <b>five billion cubic metres of gas</b> it was set to get from Gazprom(Russia). It will likely make up for it with supplies from Germany.</li> <li>• Bulgaria, which gets <b>77% of its natural gas from Russia</b>, has a bigger problem. While it is said that the country has enough reserves for another month, it needs to urgently look for alternatives, with additional supplies via pipelines from Greece being a distinct possibility.</li> </ul> <p><b>Why has Russia targeted Poland and Bulgaria with this move?</b></p>



- Poland has been a major **gateway for supply of military hardware** to Ukraine. It also confirmed recently that it will be sending tanks to Ukraine.
- Just hours before Gazprom's action, it had announced a fresh set of sanctions against the company and other Russian businesses and oligarchs.
- As for Bulgaria, after a new liberal government took office last year, it has cut many of its old ties to Russia. Not only has it **supported the West's sanctions** against Russia, it has also hosted Western fighter jets at a new NATO outpost on its Black Sea coast.
  - Bulgaria is also a major producer of non-NATO weapons that it's considering sending to Ukraine.

#### **Will other countries be hit with similar stoppages?**

- Russia supplies gas via pipelines to 23 countries in Europe.
- Among EU members, so far, **only Hungary has officially agreed** to make rouble payments, with the rest rejecting the demand.
- However, even if no other country agrees to Russia's rouble payment mechanism, there won't be any further cuts in supplies at least until the second half of May, which is when the next tranche of payments are due.
- Meanwhile, four European buyers have already started making gas payments in roubles, while 10 European companies have opened accounts with Gazprombank to make rouble payments.

#### **How have the EU, Poland, and Bulgaria reacted to the gas supply suspension?**

- The 27-member European Union has described **Russia's decision as "blackmail"** and accused Moscow of **trying to divide the West** over its support for Ukraine.

#### **What could happen if Russia shuts gas supplies to more countries?**

- Europe's natural gas comes from only three sources:
  - Russia
  - Norway
  - Algeria.
- Until the Ukraine invasion, Russia accounted for almost **40% of Europe's gas imports**.
- While the dependence on Russian gas varies from country to country — ranging from 94% for Finland to 11% for the Netherlands — there is little doubt that disruption in supplies **would fuel inflation** and **damage economic activity**, with strong possibilities of **energy rationing** and even a major recession in the continent's industrial powerhouse, Germany.

#### **What has been the EU's strategy to reduce dependence on Russian gas?**

- Europe's energy mix comprises of oil (43%), natural gas (24%), nuclear energy (14%), and hydroelectric (4%), with renewables such as wind and solar making up the rest.
- With climate change a major political issue in Europe, coal — of which there are abundant reserves on the continent — is off the table, and given public hostility to nuclear energy, **EU is left with natural gas as the cleanest source of energy**.



	<ul style="list-style-type: none"> <li>• So, for the short-term, the EU is preparing for the heating requirements of the coming winter by tanking up on its gas storage facilities at 80-90% capacity and substituting Russian supplies, as much as possible, with piped gas from Norway and North Africa.</li> <li>• But these won't be adequate to reduce Russian dependence to zero.</li> <li>• So, the longer-term strategy is centred on <b>importing liquefied natural gas (LNG) from the U.S. and the Middle East.</b></li> </ul> <p><b>Will it be feasible for Europe to transition from Russian natural gas to LNG?</b></p> <ul style="list-style-type: none"> <li>• It will be tough challenge, primarily because it is <b>easier and cheaper to transport natural gas via pipeline.</b></li> <li>• LNG requires massive facilities and container ships that require huge capital investments. And yet, over the past decade, the EU has beefed up its LNG infrastructure, building several large terminals.</li> <li>• Nonetheless, LNG transported from the U.S. by container ships would be much more expensive than Russian gas received via pipeline.</li> <li>• Achieving strategic autonomy, as it were, by replacing Russian gas with American LNG would mean <b>higher prices for the average European consumer</b>, who is currently the primary beneficiary of cheap Russian gas.</li> </ul> <p><b>How will the gas suspension impact Russia?</b></p> <ul style="list-style-type: none"> <li>• Western analysts believe that Russia has taken a gamble by cutting off supplies to Poland and Bulgaria.</li> <li>• The Russian economy is heavily dependent on gas exports, <b>deriving 40% of its revenue</b> coming from it.</li> <li>• If the move forces more EU countries to pay for gas in roubles, it will help shore up its currency and offer some relief for its sanction-hit economy.</li> <li>• But at the same time, it could also backfire, if it ends up accelerating the decoupling of the energy 'partnership' between Europe and Russia.</li> <li>• Since it is difficult to reroute piped natural gas to different markets, Russia, which doesn't have elaborate storage infrastructure, may well find itself desperate for buyers.</li> </ul> <p><b>Connecting the dots:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Russia-Ukraine Stand-off</a></li> <li>• <a href="#">Russia-Ukraine War impact, beyond oil</a></li> <li>• <a href="#">India and UNSC Vote over Russia's Invasion of Ukraine</a></li> <li>• <a href="#">Ukraine Crisis and Economy</a></li> <li>• <a href="#">India-Russia Military alliance</a></li> </ul>
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**Q.1 Vanniyars are one of the largest and most consolidated backward communities in which of the following state of India?**

- a. Karnataka
- b. Tamil Nadu
- c. Andhra Pradesh
- d. Both 1 and 2

**Q.2 What is the IUCN status of Irrawaddy dolphins?**

- a. Endangered
- b. Critically Endangered
- c. Vulnerable
- d. None of the above

**Q.3 Where is Chilika lake located?**

- a. Rajasthan
- b. Assam
- c. Odisha
- d. Delhi

**Q.4 Enforcement Directorate (ED) comes under which of the following Ministry of India?**

- a. Ministry of Personnel, Public Grievances and Pensions
- b. Ministry of Finance
- c. Ministry of Commerce
- d. Ministry of Urban affairs

**Q.5 'Talli-Bidda' Express, recently flagged off by Andhra Pradesh Chief Minister is associated with which of the following?**

- a. Pregnant women
- b. Postnatal mothers
- c. Infants
- d. All of the above

**Q.6 What is the IUCN status of Olive Ridley turtle?**

- a. Nearly endangered
- b. Extinct
- c. Threatened
- d. Vulnerable

**Q.7 MANDAPS are associated with which of the following?**

- a. Missiles
- b. Gujarat's Cultural festival
- c. Education services for Indian students
- d. Covid-19 vaccinating booths

**Q.8 India signed Economic Co-operation and Trade Agreement (ECTA) recently with which of the following country?**

- a. USA
- b. Australia
- c. China
- d. Russia

**Q.9 Appointment of Judges of the Supreme Court and High Courts is made under which of the following articles of the Constitution of India?**

- a. Article 124
- b. Article 217
- c. Article 224
- d. All of the above

**Q.10 Consider the following statements regarding IPCC:**

1. It is an international body set up in 1988 by the World Meteorological Organization (WMO) and United Nations Environment Programme (UNEP)
2. The main objective of UNFCCC is to prevent ozone depletion .

**Which of the following is or are correct?**

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

**Q.11 Consider the following statements regarding Criminal Procedure (Identification) Bill, 2022:**

1. It seeks to repeal the Identification of Prisoners Act, 1920.

2. It allows the collection, storage and analysis of physical and biological samples, including retina and iris scan of the convicted, arrested and detained persons.

**Which of the following is or are correct?**

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

**Q.12 Consider the following statements:**

1. Naya Savera Aims to provide free coaching to students/candidates belonging to six notified minority communities i.e. Sikhs, Jains, Muslims, Christians, Buddhists and Parsis for technical/professional courses and competitive examination.
2. Under Nai Udaan Scheme, support is provided to minority candidates clearing Preliminary examinations conducted by UPSC, State Public Service Commission (PSC), Staff Selection Commission (SSC) etc.

**Which of the following is or are correct?**

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

**Q.13 Where is Mullaperiyar Dam located?**

- a. Kerala
- b. Tamil Nadu
- c. Karnataka
- d. Both (a) and (b)

**Q.14 Awareness Mascot 'Prakriti' launched recently is associated with which of the following?**

- a. Early childhood education
- b. COVID Vaccination
- c. Plastic Waste Management (PWM)
- d. Online gaming addiction

**Q.15 Consider the following statements regarding Indian Nursing Council:**

1. Indian Nursing Council is a national regulatory body for nurses and nurse education in India.
2. It is an autonomous body under the Government of India, Ministry of Health & Family Welfare

**Which of the above is or are correct?**

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

**Q.16 When is World Health Day celebrated?**

- a. April 7th
- b. April 17th
- c. March 7th
- d. June 7th

**Q.17 Which of the following states in India is *not* one of the top 3 millet producing states?**

- a. Maharashtra
- b. Karnataka
- c. Rajasthan
- d. Punjab

**Q.18 Consider the following statements regarding Dalai Lama's Central Tibetan Relief Committee (CTRC)**

1. It was formed and registered as Charitable Society under Indian Societies Registration Act XXI of 1860.
2. The main objective of the committee is to coordinate Individual, Voluntary Agencies and Indian Government's efforts to rehabilitate and settle Tibetan Refugees.

**Which of the above is or are correct?**

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

**Q.19 Indian tent turtle is listed in which of the following Schedules of the Wildlife (Protection) Act, 1972?**

- a. Schedule –I
- b. Schedule –II

- c. Schedule –III
- d. None of the above

related to health including promotion of public health through Homoeopathy.

**Q.20 Resolution 60/251 of the United Nations is associated with which of the following?**

- a. Formation of United Nations Human Rights Council
- b. Economic sanctions on Russia
- c. Resolution against ISIS
- d. India's membership to UNSC

**Q.21 Consider the following statements regarding Pradhan Mantri MUDRA Yojana (PMMY)**

Under this yojana, the government provides financial assistance of Rs 10 lakh to non-corporate, non-farm small/micro enterprises to promote startups.

Commercial Banks, RRBs, Small Finance Banks, MFIs and NBFCs have been roped in to provide this loan facility to the right beneficiaries.

**Which of the above is or are correct?**

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

**Q.22 Which of the following is *not* true about the National Commission for Homoeopathy (NCH) Act, 2020?**

- a. The NCH, Act, 2020 came into force after repealing the Homoeopathy Central Council Act, 1973 and applies to the whole of India.
- b. The 2020 Act replaced the Council with a National Commission of Homoeopathy for regulating homoeopathic education and practice.
- c. The Act does not have any provision for having an interface between Homoeopathy, Indian system of Medicine and Modern system of Medicine to promote medical pluralism.
- d. It also provides provision for the State Government to take necessary measures to address various issues

**Q.23 Which of the following committees recommended the establishment of the Monetary Policy Committee?**

- a. M L Dhantwala Committee
- b. Tandon Committee
- c. Urjit Patel committee
- d. Narasimham Committee

**Q.24 Consider the following statements regarding Fortification?**

1. Fortification is the addition of key vitamins and minerals such as iron, iodine, zinc, Vitamin A & D to staple foods such as rice, milk and salt to improve their nutritional content.
2. These nutrients may or may not have been originally present in the food before processing.

**Which of the above is or are correct?**

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

**Q.25 Atal Innovation Mission (AIM) was set up by Which of the following?**

- a. Ministry of Science and technology
- b. NITI Aayog
- c. IIT-Bombay
- d. All of the above

**Q.26 Which of the following are types of Alternative Dispute Resolution (ADR) Mechanisms?**

- a. Arbitration
- b. Negotiation
- c. Mediation
- d. All of the above

**Q.27 Consider the following statements regarding PM-DAKSH Yojana:**

1. The scheme aims to increase the skill levels of the target youth by providing for long-term and short-term skills,

followed by settlement in employment and self-employment.

2. It comes under the Ministry of Social Justice & Empowerment

**Which of the above is or are correct?**

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

**Q.28 Satyashodhak Samaj was formed by?**

- a. Mahatma Gandhi
- b. Swami Vivekanand
- c. Jyotirao Govindrao Phule
- d. Raja Rammohan Roy

**Q.29 In which year Unlawful Activities (Prevention) Act was amended to designate individuals as terrorists on certain grounds provided in the Act?**

- a. 2010
- b. 2018
- c. 2000
- d. 2019

**Q.30 Consider the following statements regarding methane:**

1. Methane is a gas that is found in large quantities.
2. Methane is 84 times more potent than carbon.

**Which of the above is or are correct?**

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

**Q.31 Which country recently announced a debt default on all its foreign debt totalling \$51 billion as a "last resort"?**

- a. Maldives
- b. Sri Lanka
- c. Nepal
- d. Afghanistan

**Q.32 According to a report by JMK Research and the Institute for Energy Economics and**

**Financial Analysis (IEEFA), India is likely to miss its 2022 target of installing 100 gigawatts (GW) of solar power capacity. What are the major factors for the same?**

- a. Pandemic-induced supply chain disruption
- b. Unsigned power supply agreements (PSAs)
- c. Banking restrictions
- d. All of the above

**Q.33 Consider the following statements regarding Consumer Price Index (CPI):**

1. The Consumer Price Index (CPI) is a measure that examines the weighted average of prices of a basket of consumer goods and services, such as transportation, food and medical care.
2. It is calculated by taking price changes for each item in the predetermined basket of goods and averaging them.

**Which of the above is or are correct?**

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

**Q.34 Malcolm Adiseshiah Award is awarded for which of the following?**

- a. Development Studies
- b. Historical research
- c. Social service
- d. Fighting militants

**Q.35 South Asia Economic Focus Reshaping Norms is published by which of the following?**

- a. World Bank
- b. UNESCO
- c. WTO
- d. IMF

**Q.36 When did Jallianwala Bagh massacre take place?**

- a. 13th April
- b. 14th April
- c. 15th April
- d. 16th April



**Q.37) Which of the following statements is/are correct?**

1. Bohag Bihu is a sowing festival.
2. Kati Bihu is an animistic festival linked with crop protection and plant and crop worship.
3. Bhogali Bihu is a harvest celebration.

**Select the correct code:**

- a. 1 Only
- b. 1 and 2
- c. 2 and 3
- d. 1, 2 and 3

**Q.38) The 'Sahyadri Tiger Reserve' is spread over which of the following states?**

1. Maharashtra
2. Goa
3. Karnataka

**Select the correct code:**

- a. 1 Only
- b. 1 and 2
- c. 2 and 3
- d. All of the above

**Q.39) Consider the following statements about 'Solomon Islands'.**

1. It is located south of Australia
2. It is located in the Polynesia subregion of Oceania.

**Select the correct code:**

- a. 1 Only
- b. 2 Only
- c. Both 1 and 2
- d. Neither 1 nor 2

**Q.40) Which of the following pairs are correctly matched?**

**Constitutional**

**Articles :: Amendments**

1. Article 371A – 13th Amendment Act, 1962
2. Article 371C – 27th Amendment Act, 1971
3. Article 371D – 28th Amendment Act, 1972

**Select the correct code:**

- a. 1 Only
- b. 1 and 2
- c. 2 and 3
- d. 1, 2 and 3

**Q.41) Consider the following statements**

1. Black Sea is connected to the Sea of Azov by the Kerch Strait.
2. Black Sea ultimately drains into the Mediterranean Sea, via the Turkish Straits and the Aegean Sea.

**Select the correct code:**

- a. 1 Only
- b. 2 Only
- c. Both 1 and 2
- d. Neither 1 nor 2

**Q.42) Consider the following statements about 'Poison Pill'?**

1. It decreases the cost of acquisition which encourages the acquiring company from taking over.
2. Shareholders, except the acquirer, purchase additional shares at discount.
3. Shareholders of a target company buy shares of acquiring company after a hostile takeover becomes successful.

**Select the correct code:**

- a. 1 and 2
- b. 2 and 3
- c. 1 and 3
- d. All of the above

**Q.43) Consider the following statements and identify the correct answer:**

1. It happens to be the largest water body with a meromictic basin.
2. There is a significant absence of oxygen in the water.

**Select the correct code:**

- a. Mediterranean Sea
- b. Baltic Sea
- c. Black Sea
- d. Caspian Sea

**Q.44) Consider the following statements**

1. Article 25 says that all persons are equally entitled to freedom of conscience and the right to freely profess, practice, and propagate religion.
2. Article 26 says that all denominations can manage their own affairs in matters of religion.

**Select the correct code:**

- a. 1 Only
- b. 2 Only
- c. Both 1 and 2
- d. Neither 1 nor 2

**Q.45) Hindustan Socialist Republican Association (HSRA) was formed by**

1. Chandrasekhar Azad
2. Bhagat Singh
3. Batukeshwar Dutt

**Select the correct code:**

- a. 1 and 2
- b. 2 and 3
- c. 1 and 3
- d. All of the above

**Q.46) 'Marib' was in news recently. Where is it located?**

- a. Yemen
- b. Syria
- c. Libya
- d. Sudan

**Q.47) 'Houthis' have a strong presence in**

1. Yemen
2. Syria
3. Oman

**Select the correct code:**

- a. 1 Only
- b. 1 and 2
- c. 2 and 3
- d. 1, 2 and 3

**Q.48) The issue of 'Mullaperiyar Dam' is disputed between which of the following states?**

- a. Karnataka and Tamil Nadu

- b. Kerala and Tamil Nadu
- c. Karnataka and Kerala
- d. Karnataka and Telangana

**Q.49) Quantum Computing has applications in which of the following?**

1. Drug Design & Development
2. Logistics Optimisation
3. Financial Modelling

**Select the correct code:**

- a. 1 and 2
- b. 2 and 3
- c. 1 and 3
- d. All of the above

**Q.50) Consider the following statements**

1. The bulk of the manufactured jute goods is predominantly being used in packaging purposes in the domestic market.
2. Andhra Pradesh is the largest producer of jute in India.

**Select the correct code:**

- a. 1 Only
- b. 2 Only
- c. Both 1 and 2
- d. Neither 1 nor 2

**Q.51) Consider the following statements**

1. India is the world's biggest smartphone manufacturer.
2. India imports 100% of its semiconductors.

**Select the correct code:**

- a. 1 Only
- b. 2 Only
- c. Both 1 and 2
- d. Neither 1 nor 2

**Q.52) Which of the following are allowed to set up 'Digital Banking Units (DBUs)?**

1. Regional rural banks
2. Payment banks
3. Local area banks

**Select the correct code:**

- a. 1 only
- b. 2 only

- c. 3 only
- d. None of the above

**Q.53) Consider the following statements**

1. MCLR is the minimum rate at which banks can offer loans to end-consumers.
2. When banks hike MCLR, new borrowers will have to shell out more to service their loans.

**Select the correct code:**

- a. 1 Only
- b. 2 Only
- c. Both 1 and 2
- d. Neither 1 nor 2

**Q.54) 'Green Hydrogen Catapult' is launched by**

- a. Climate Vulnerable Forum
- b. United Nations
- c. World Economic Forum
- d. BRICS

**Q.55) Consider the following statements about 'Fincluvation'.**

1. It is launched by the Reserve Bank of India.
2. It promotes innovative solutions in collaboration with fintech startups to accelerate financial inclusion among the underserved and unserved population.

**Select the correct code:**

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. None of the above

**Q.56) Consider the following statements**

1. Wildlife Protection Act, 1972 prohibits the killing and not poaching of wild animals.
2. The Wildlife Protection Act is applicable to aquatic animals too.

**Select the correct code:**

- a. 1 Only
- b. 2 Only
- c. Both 1 and 2
- d. Neither 1 nor 2

**Q.57) 'Somalia' is not bordered by**

- a. Ethiopia
- b. Djibouti
- c. Kenya
- d. South Sudan

**Q.58) Consider the following statements about 'Osman Sagar' and 'Himayat Sagar'.**

1. The reservoirs were created by building dams on the Krishna River.
2. The lakes came into being during the reign of the last nizam Osman Ali Khan.

**Select the correct code:**

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

**Q.59) Consider the following statements about marginal cost of funds-based lending rates (MCLR) and external benchmark linked lending rate (EBLR).**

1. MCLR-linked loans had the largest share of the loan portfolio of banks.
2. When the RBI hikes the repo rate, EBLR will go up and vice versa.

**Select the correct code:**

- a. 1 Only
- b. 2 Only
- c. Both 1 and 2
- d. Neither 1 nor 2

**Q.60) When interest rates fall, the value of the bond or debt mutual fund**

- a. Increases
- b. Decreases
- c. No Change
- d. Might increase or decrease depending on the government in power.

**Q.61) Consider the following statements**

1. Phone tapping in India is governed by the Indian Telegraph Act 1885.
2. Telephone tapping would infringe Article 21 of the Constitution unless it is permitted under the procedure established by law.

**Select the correct code:**

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

**Q.62) Consider the following statements**

- 1. mRNA directs the cell to produce copies of the spike protein.
- 2. mRNA vaccine is an improvement on the traditional RNA platform.

**Select the correct code:**

- a. 1 Only
- b. 2 Only
- c. Both 1 and 2
- d. Neither 1 nor 2

**Q.63) Kuril Islands separates**

- a. Pacific Ocean and Sea of Okhotsk
- b. Sea of Japan and Pacific Ocean
- c. East Siberian Sea and Chukchi Sea
- d. Beaufort Sea and Chukchi Sea

**Q.64) Section 144 of the CrPC empowers whom to issue orders to prevent and address urgent cases of apprehended danger or nuisance?**

- 1. District Magistrate
- 2. A sub-divisional Magistrate
- 3. Any other executive magistrate empowered by the state government

**Select the correct code:**

- a. 1 and 2
- b. 2 and 3
- c. 1 and 3
- d. All of the above

**Q.65) A region is considered to be under the grip of a heatwave if**

- 1. the maximum temperature reaches at least 40 degrees Celsius or more in the plains.
- 2. the maximum temperature reaches at least 35 degrees Celsius or more in hilly regions.

**Select the correct code:**

- a. 1 Only

- b. 2 Only
- c. Both 1 and 2
- d. Neither 1 nor 2

**Q.66) Consider the following statements**

- 1. According to the UGC (Minimum Qualifications for Appointment of Teachers and other Academic Staff in Universities and Colleges and other Measures for the Maintenance of Standards in Higher Education) Regulations, 2018, the "Visitor/Chancellor" shall appoint the VC out of the panel of names recommended by search-cum-selection committees.
- 2. The subject 'education' is in the Union List of the Seventh Schedule of the Constitution.

**Select the correct code:**

- a. 1 Only
- b. 2 Only
- c. Both 1 and 2
- d. Neither 1 nor 2

**Q.67) Consider the following statements**

- 1. Article 239 AA was inserted into the Constitution by The Constitution (69th Amendment) Act, 1991.
- 2. It gives Special Status to Delhi following the recommendations of the S Balakrishnan Committee.

**Select the correct code:**

- a. 1 Only
- b. 2 Only
- c. Both 1 and 2
- d. Neither 1 nor 2

**Q.68) Consider the following statements**

- 1. Employment Rate (ER) refers to the total number of employed people as a percentage of the working-age population.
- 2. Labour force participation rate (LFPR) essentially is the percentage of the working-age (15 years or older) population that is asking for a job.

**Select the correct code:**

- a. 1 Only
- b. 2 Only
- c. Both 1 and 2
- d. Neither 1 nor 2

- a. 1 Only
- b. 2 Only
- c. Both 1 and 2
- d. Neither 1 nor 2

**Q.69) Consider the following statements**

- 1. The primary objective of the RBI's monetary policy is to maintain price stability while keeping in mind the objective of growth.
- 2. Price stability is a necessary precondition to sustainable growth.

**Select the correct code:**

- a. 1 Only
- b. 2 Only
- c. Both 1 and 2
- d. Neither 1 nor 2

**Q.70) 'Supply Chain Resilience Initiative (SCRI)' is associated with**

- 1. India
- 2. Japan
- 3. USA

**Select the correct code:**

- a. 1 and 2
- b. 2 and 3
- c. 1 and 2
- d. All of the above

**Q.71) Consider the following statements**

- 1. Petroleum taxes with states are shared out of basic excise duty.
- 2. The Centre also levies additional excise duty and cesses on petroleum products.

**Select the correct code:**

**Q.72) 'Reciprocal Provision of Supplies and Services Agreement (RPSS)' is associated with**

- a. Japan
- b. Russia
- c. USA
- d. France

**Q.73) 'Justice Malimath Committee' is associated with**

- 1. Criminal Justice System
- 2. All India Judicial Services
- 3. Digital Payments

**Select the correct code:**

- a. 1 Only
- b. 1 and 2
- c. 2 and 3
- d. All of the above

**Q.74) 'ADIGRAMS' is launched by the**

- a. Ministry of Tribal Affairs
- b. Ministry of Social Justice and Empowerment
- c. Ministry of Panchayati Raj
- d. Ministry of Corporate Affairs

**Q.75) 'Global Security Initiative' is associated with which of the following countries?**

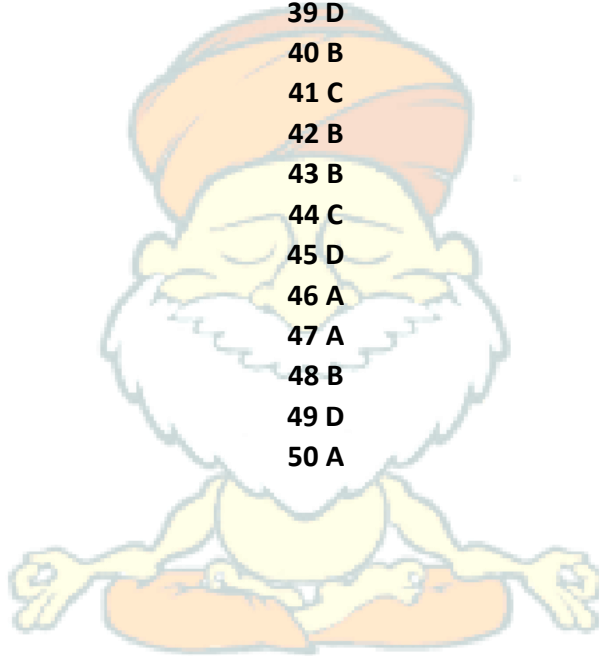
- a. China
- b. USA
- c. France
- d. Russia

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*MCQS ANSWER*

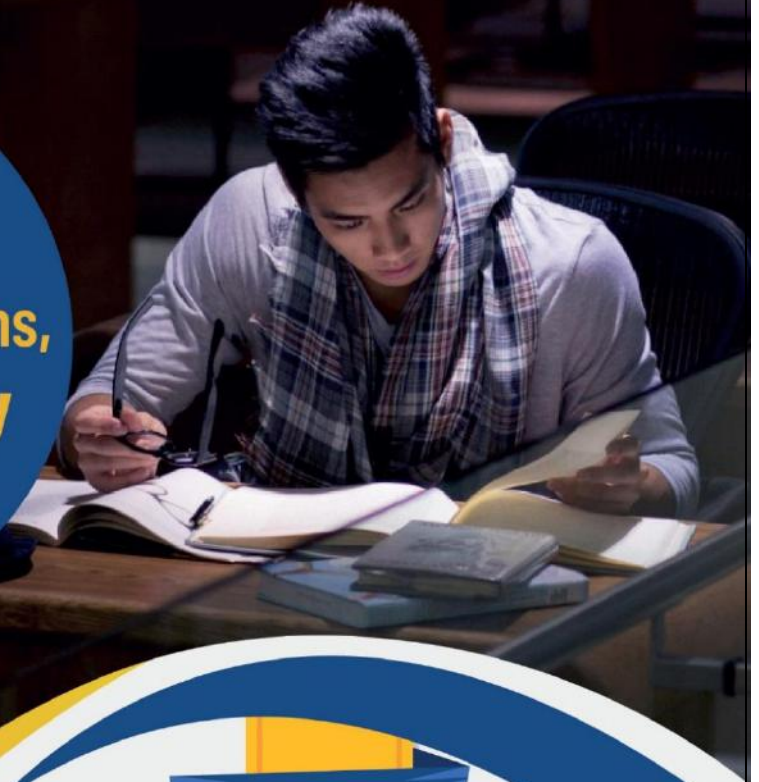
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1 B	26 D	51 D
2 A	27 C	52 D
3 C	28 C	53 C
4 B	29 D	54 B
5 D	30 B	55 B
6 D	31 B	56 B
7 A	32 D	57 D
8 B	33 C	58 B
9 D	34 A	59 C
10 A	35 A	60 A
11 C	36 A	61 C
12 C	37 D	62 C
13 A	38 A	63 A
14 C	39 D	64 D
15 C	40 B	65 A
16 A	41 C	66 A
17 D	42 B	67 C
18 C	43 B	68 C
19 A	44 C	69 C
20 A	45 D	70 A
21 C	46 A	71 C
22 C	47 A	72 A
23 C	48 B	73 A
24 C	49 D	74 A
25 B	50 A	75 A





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