



One Stop Destination For UPSC/IAS Preparation

# Baba's Monthly **CURRENT AFFAIRS MAGAZINE**

**Gyanvapi**

*Mosque controversy*

**Monkey pox**

**Indo-Pacific Economic**

*Framework for Prosperity*

**Agriculture Exports**

**Surrogacy**

*Regulation Act, 2021*



# IAS BABA

baba's gurukul

**The Guru-shishya Parampara Continues....**

**Under The Guidance Of Mohan Sir (Founder, IASbaba)**



**Mohan Sir**  
(Founder, IASbaba)

**Gurukul Foundation**

**(For Freshers)**

**Above & Beyond Regular Coaching**

**Gurukul Advanced**

**A Rigorous & Intensive Test  
& Mentorship based Program**





## PRELIMS

### POLITY & GOVERNANCE

Deemed Forest .....	5
Disqualification of MLAs and MPs ....	5
Lokpal.....	6
Article 161.....	7
Delimitation Panel.....	7
Judicial Appointments.....	8
Aadhaar.....	9
Regional Branches of Top Court.....	9
Chief Election Commissioner.....	10
Chief of Defence Staff.....	11
Lieutenant Governor of Delhi.....	12
Inter-State Council.....	12

### ECONOMICS

National Research Foundation (NRF)14	
e – shram .....	14
CRR & Repo Rate.....	15
Bond Yields.....	16
Exchange Rate.....	16
Inflation.....	17

Goods and Service Tax.....	18
RBI Surplus Transfer.....	20
Fuel Tax.....	20
PM GatiShakti.....	21
Sugar export curbs and their impact.	22

### INTERNATIONAL RELATIONS

Common Development Vision.....	24
Shanghai Cooperation Organisation(SCO).....	24
Indo-Pacific Partnership for Maritime Domain Awareness (IPMDA).....	25
Information Fusion Centre for Indian Ocean Region (IFC-IOR).....	26
BRICS PLUS.....	26

### HISTORY AND ART & CULTURE

Basava Jayanti.....	28
Rakhigarhi.....	29
Panniru Tirumurai.....	30
Iron tools in Tamil Nadu.....	31
Raja Ram Mohan Roy.....	31

### GEOGRAPHY

Chakma Tribes.....	35
--------------------	----



Urban Heat Islands.....	35
Mariupol.....	37
Sea of Azov.....	37
Pangong Tso.....	38
Donbas and Luhansk.....	39
Wanchuwa festival.....	39
Katchatheevu Island.....	40
Gold Reserves.....	40

#### ENVIRONMENT

Pangolin.....	42
Guidelines for Safety Assessment of Genome Edited Plants, 2022.....	42
Community Forest Rights.....	43

#### SCIENCE & TECHNOLOGY

ATAGS.....	45
Monkeypox.....	45
Black Hole.....	46
BrahMos .....	47
Gaganyaan Mission .....	47
mRNA Vaccine.....	48
RNA Granules.....	49
Pullulan Polymer.....	51

Artificial Intelligence Chips.....	51
West Nile Virus.....	52

#### MISCELLANEOUS

World Press Freedom Index.....	53
Thomas Cup.....	54
World of Work Report.....	54
National Achievement Survey (NAS).....	55

### MAINS

#### INDIAN POLITY & GOVERNANCE

Quasi federalism.....	58
Delhi-Centre Government dispute over control of services of NCT region.....	59
Delhi-Centre Power Tussle.....	60
Minority Status in India.....	62
Fortified rice leading to side effects among Adivasis .....	63
Section 153A and Section 295A of IPC.....	64
Police Reforms.....	65
Sedition Law.....	68



Foreign Contribution Regulation Act (FCRA).....70

National Register of Citizens (NRC)...73

ASHA Workers.....75

Gyanvapi Mosque controversy & Places of Worship (Special Provisions) Act, 1991.....77

Indus Waters Treaty, 1960.....77

Supreme Court recognizes prostitution as profession.....79

## INTERNATIONAL RELATIONS

Indo-Pacific Economic Framework for Prosperity (IPEF).....80

Solomon Islands and China Security Pact .....81

Finland: From Neutral to NATO.....83

## ECONOMICS

Highlights of National Family Health Survey.....86

Poverty.....88

Power Shortage Crisis.....89

## ENVIRONMENT

Air Pollution in India.....90

Public Health Engineering.....91

Stubble Burning.....92

Electric Vehicles.....95

Ethanol Blending.....98

Green Hydrogen.....101

## SOCIETY & SOCIAL ISSUES

Marital Rape.....103

LGBTIQ.....105

Language Debate.....107

Surrogacy Regulation Act, 2021.....111

## SECURITY ISSUES

Armed Forces (Special Powers) Act (AFSPA), 1958.....115

Sikh Separatism.....116

Practice Questions - MCQs.....118

Solutions to Practice Questions - MCQs....126



## PRELIMS



### POLITY AND GOVERNANCE



<p><b>Deemed Forest</b></p>	<p><b>In News:</b> Karnataka Chief Minister has signed cabinet decision to release 6.5 lakh hectares from the deemed forest classification</p> <ul style="list-style-type: none"> <li>This measure will <b>essentially declassify close to 67 per cent of the land in Karnataka</b> that was otherwise classified as deemed forests</li> <li>There is <b>no comprehensive definition for “forests” in India.</b></li> <li>The ambiguity around this term was clarified by the <b>Supreme Court in T N Godavarman Thirumulpad</b> case where it <b>defined “forest” to include any piece of land that resembles the dictionary meaning of forest</b> for the purpose of the Forest (Conservation) Act, 1980.</li> <li>This case also <b>conceptualized “deemed forests”</b></li> </ul> <p><b>Deemed forests were conceived as areas that has not been notified under the legislation, but are recorded as forests in government records.</b></p> <ul style="list-style-type: none"> <li>These are lands that have <b>characteristics of forests, irrespective of ownership.</b></li> <li><b>Once forests are “deemed”, they cannot be de-reserved or utilized for non-forest purposes without prior approval of the Centre.</b></li> <li>Deemed forests, <b>comprising about 1% of India’s forest land</b></li> <li>In Godavarman case the Court ordered the <b>setting up of expert committees in each state to identify deemed forests to remove any ambiguities</b></li> <li>This decision paved the way for the <b>preservation of forest areas in India to be continuously monitored by the Supreme Court</b>, mandating the state governments to obtain clearances for affecting or implementing changes to lands classified as deemed forests.</li> </ul>
<p><b>Disqualification of MLAs and MPs</b></p>	<p><b>In News:</b> The <b>Election Commission (EC)</b> has sent a notice to Jharkhand Chief Minister over an office-of-profit charge against him for allotment of a mining lease in his name</p> <ul style="list-style-type: none"> <li><b>Under Section 9A of the Representation of the People Act, 1951 CM faces disqualification for entering into a government contract</b></li> </ul> <p><b>Key Provisions of RPA, 1951</b></p> <ul style="list-style-type: none"> <li>It regulates the actual <b>conduct of elections and by-elections.</b></li> <li>It provides <b>administrative machinery</b> for conducting elections.</li> <li>It deals with <b>the registration of political parties.</b></li> <li>It specifies the <b>qualifications and disqualifications</b> for membership of the Houses.</li> <li>It provides provisions to <b>curb corrupt practices and other offences.</b></li> <li>It lays down the <b>procedure for settling doubts and disputes arising out of elections.</b></li> </ul> <p><b>Disqualifications</b></p> <ul style="list-style-type: none"> <li>Is <b>found guilty of certain election offences</b> or corrupt practices in the elections</li> </ul>

	<ul style="list-style-type: none"> <li>Is <b>convicted for any offence resulting in imprisonment for two or more years</b> (except for the detention under a preventive detention law)</li> <li>Has <b>failed to lodge an account of his/her election expenses</b> within the time</li> <li>Has any <b>interest in government contracts, works or services</b>.</li> <li>Is a director or managing agent or holds an office of profit in a corporation in which the <b>government has at least 25% share</b>.</li> <li>Has been <b>dismissed from government service</b> for corruption or disloyalty to the State</li> <li>Has been <b>convicted for promoting enmity</b> between different groups or for the offence of bribery</li> <li>Has been <b>punished for preaching and practicing social crimes</b> such as untouchability, dowry and sati.</li> </ul>
Lokpal	<p><b>In News:</b> Lokpal to get permanent office at World Trade Centre in Delhi</p> <ul style="list-style-type: none"> <li>The <b>Lokpal and Lokayukta Act, 2013</b> provided for the establishment of Lokpal for the Union and Lokayukta for States</li> <li>They perform the function of an <b>"ombudsman"</b> and <b>inquire into allegations of corruption</b> against certain public functionaries and for related matters.</li> <li>Lokpal is a <b>multi-member body</b> that consists of <b>one chairperson and a maximum of 8 members</b>.</li> <li><b>Chairperson</b> of the Lokpal should be either the <b>former Chief Justice of India or the former Judge of Supreme Court or an eminent person</b> with impeccable integrity and outstanding ability, having special knowledge and expertise of minimum 25 years in the matters relating to anti-corruption policy, public administration, vigilance, finance including insurance and banking, law and management.</li> <li>The <b>term of office for Lokpal Chairman and Members is 5 years or till the age of 70 years</b>.</li> <li>The members are <b>appointed by the president</b> on the recommendation of a <b>Selection Committee</b>.</li> </ul> <p><b>Lokpal Jurisdiction and Powers</b></p> <ul style="list-style-type: none"> <li><b>Jurisdiction</b> of Lokpal includes <b>Prime Minister, Ministers, members of Parliament, Groups A, B, C and D officers and officials of Central Government</b>.</li> <li>Its jurisdiction also includes <b>any person who is or has been in charge of anybody/ society</b> set up by central act or any other body financed/ controlled <b>by central government</b> and any other person involved in act of abetting, bribe giving or bribe taking.</li> <li>It has the <b>powers to superintendence over, and to give direction to CBI</b></li> <li>The <b>Inquiry Wing</b> of the Lokpal has been vested with the powers of a civil court.</li> <li>Lokpal has the power to <b>recommend transfer or suspension of public servant</b> connected with allegations of corruption.</li> <li>Lokpal has the power to <b>give directions to prevent the destruction of records</b> during the preliminary inquiry.</li> </ul>

	<p>Lokpal has powers of <b>confiscation of assets, proceeds, receipts and benefits arisen or procured by means of corruption in special circumstances.</b></p>
<b>Article 161</b>	<p><b>In News:</b> Tamil Nadu Governor has made a reference (mercy petition) under Article 161 to the President</p> <ul style="list-style-type: none"> <li>● <b>Article 161 provides that the Governor of a State shall have the power to grant pardons, reprieves, respites or remissions of punishment or to suspend, remit or commute the sentence of any person convicted of any offence against any law relating to a matter to which the executive power of the State extends.</b></li> <li>● It is on lines with <b>Article 72</b> conferred upon President of India</li> </ul> <p><b>Article 72:</b> provides the pardoning power to the President of India          “The President shall have the power to <b>grant pardons, reprieves, respites or remissions of punishment or to suspend, remit or commute</b> the sentence of any person convicted of any offence-</p> <ul style="list-style-type: none"> <li>● in all cases where the <b>punishment or sentence is by a Court-martial;</b></li> <li>● in all cases where the punishment or sentence for an offence against <b>any law relating to a matter to which the executive power of the Union extends;</b></li> <li>● in all cases where the sentence is a <b>sentence of death.”</b></li> </ul> <p><b>Supreme Court has noted that</b></p> <ul style="list-style-type: none"> <li>● The <b>President has to act on the advice of the Council of Ministers</b> while deciding mercy pleas</li> <li>● The sovereign power of a <b>Governor to pardon a prisoner under Article 161</b> is actually <b>exercised by the State government and not the Governor on his own.</b> <ul style="list-style-type: none"> <li>○ The advice of the appropriate government binds the Head of the State.</li> </ul> </li> </ul>
<b>Delimitation Panel</b>	<p><b>In news:</b> <a href="#">Jammu and Kashmir Delimitation Commission</a> released its final order. The delimitation exercise had <b>started in June 2021 in the state.</b></p> <p><b>Key takeaways</b></p> <ul style="list-style-type: none"> <li>● The panel has recommended <b>seven additional constituencies — six for Jammu and one for Kashmir</b> — taking the total number of seats in the UT to 90 from 83 earlier</li> <li>● It has <b>reorganised the Parliamentary constituencies</b> such that the five Lok Sabha seats now are made up of exactly 18 Assembly constituencies each, taking the total number to 90</li> <li>● It has <b>reserved nine Assembly seats for Scheduled Tribes</b> — six in Jammu and three in Kashmir</li> <li>● It has removed the <b>regional distinction between Jammu and Kashmir</b> by treating it as one, as is reflected in the combining of Anantnag region in Kashmir with Rajouri and Poonch in Jammu to carve out Anantnag-Rajouri as a Parliamentary constituency.</li> </ul> <p><b>What is delimitation?</b>          Delimitation is the <b>act of fixing or redrawing the limits or boundaries</b> of territorial constituencies of Assembly or Lok Sabha seats in a country</p> <p><b>Constitutional Provisions</b></p>



	<ul style="list-style-type: none"> <li>Under <b>Article 82</b>, the Parliament enacts a Delimitation Act after every Census.</li> <li>Under <b>Article 170</b>, States also get divided into territorial constituencies as per Delimitation Act <sup>after</sup> every Census.</li> <li>Once the Act is in force, <b>the Union government sets up a Delimitation Commission</b></li> </ul> <p><b>Delimitation Commissions had been set up four times — 1952, 1963, 1973 and 2002 under the Acts of 1952, 1962, 1972 and 2002.</b></p> <ul style="list-style-type: none"> <li>The Delimitation Commission is <b>appointed by the President</b> of India and works in collaboration with the Election Commission of India</li> </ul>
<b>Judicial appointments</b>	<p><b>In news:</b> Collegium recommends two names for Supreme Court  <a href="#">Appointment of Judges</a></p> <p><b>Constitutional Provisions</b></p> <ul style="list-style-type: none"> <li><b>Article 124(2)</b> of the Indian Constitution provides that the Judges of the SC are appointed by the President after consultation with such a number of the Judges of the SC and of the High Courts in the States as the President may deem necessary for the purpose.</li> <li><b>Article 217</b> of the Indian Constitution states that the Judge of a High Court shall be appointed by the President in consultation with the Chief Justice of India, the Governor of the State, and, in the case of appointment of a Judge other than the Chief Justice, the Chief Justice of the High Court.</li> <li>The Supreme Court has offered <b>diverse meanings of the phrase "consultation"</b></li> </ul> <p><b>Evolution of Collegium System</b></p> <ul style="list-style-type: none"> <li>Collegium System: It is the <b>system of appointment and transfer of judges that has evolved through judgments of the SC</b></li> </ul> <p><b>First Judges Case (1981):</b></p> <ul style="list-style-type: none"> <li>The Supreme Court judgment held that <b>consultation does not mean concurrence and it only implies an exchange of views.</b></li> </ul> <p><b>Second Judges Case (1993):</b></p> <ul style="list-style-type: none"> <li>SC introduced the Collegium system, holding that <b>"consultation" really meant "concurrence"</b>.</li> <li>It added that it was <b>not the CJI's individual opinion, but an institutional opinion formed in consultation with the two senior-most judges in the SC.</b></li> </ul> <p><b>Third Judges Case (1998):</b></p> <ul style="list-style-type: none"> <li>The Court opined that the consultation process to be adopted by the Chief Justice of India requires <b>'consultation of plurality judges'</b>.</li> <li>He should consult <b>a collegium of four senior-most judges of the Supreme Court</b> and even if two judges give an adverse opinion, he should not send the recommendation to the government.</li> </ul> <p><b>Judges of the higher judiciary are appointed only through the collegium system</b></p> <ul style="list-style-type: none"> <li>The government's role is limited to getting an inquiry conducted by the Intelligence Bureau (IB) if a lawyer is to be elevated as a judge in a High Court or the Supreme Court.</li> </ul>

<p><b>Aadhaar</b></p>	<p><b>In News:</b> The UIDAI has opposed a petition by Delhi Police seeking directions from the High Court that would allow investigators to match a suspect's picture and chance prints (latent fingerprints) from the crime scene with the Aadhaar database to help identify the accused in a case of murder.</p> <ul style="list-style-type: none"> <li>• The UIDAI is prohibited by law from sharing any core biometric information with police.</li> </ul> <p><b>What Happened?</b></p> <ul style="list-style-type: none"> <li>• Delhi Police approached Delhi High Court under Section 33(1) of The Aadhaar Act, according to which a judge of a High Court can order the disclosure of information on identity in certain cases.</li> </ul> <p><b>What does UIDAI say?</b></p> <ul style="list-style-type: none"> <li>• According to UIDAI, the Delhi Police's request is contrary to Section 29 of the Act, which prohibits it from sharing core biometric information — fingerprint, iris scan or any such biological attribute — with any agency "for any reason whatsoever".</li> <li>• The UIDAI has also said that no Aadhaar data can be shared by any individual or entity with anyone without the consent of the resident or holder of the Aadhaar.</li> <li>• Section 33, the provision under which Delhi Police has approached the court, allows the disclosure of only identification information including photograph or authentication records, but no core biometric information.</li> </ul> <p><b>Tech impediment</b></p> <ul style="list-style-type: none"> <li>• UIDAI had told the court that no "1:N" sharing of data was possible, it had to be done on a 1:1 basis only.</li> <li>• "The Aadhaar technology only permits biometric authentications which are done on a 1:1 basis for which it is necessary to have the Aadhaar number of an individual</li> <li>• UIDAI has also said it does not collect biometric information based on technologies, standards or procedures suitable for forensic purposes.</li> <li>• According to UIDAI, for Aadhaar based authentication, it was essential to have both "live biometrics" and the Aadhaar.</li> <li>• The authority can establish the identity of an individual only through the Aadhaar number — if that is not possible, it is technically not feasible to even provide the photograph of an unknown accused</li> </ul> <p><b>Unique Identification Authority of India</b></p> <ul style="list-style-type: none"> <li>• The Unique Identification Authority of India (UIDAI) is a statutory authority established on 12 July 2016 by the Government of India under the jurisdiction of the Ministry of Electronics and Information Technology, following the provisions of the Aadhaar Act 2016.</li> <li>• The UIDAI is mandated to assign a 12-digit unique identification (UID) number (Aadhaar) to all the residents of India.</li> </ul>
<p><b>Regional Branches of Top Court</b></p>	<p><b>In news:</b> Tamil Nadu Chief Minister has written to Prime Minister and Chief Justice of India on need for regional branches of top court and urging that Tamil be made the official language of Madras High Court</p> <p><b>Constitutional Provisions</b></p>

	<ul style="list-style-type: none"> <li>• The <b>Constitution declares Delhi as the seat of the Supreme Court</b></li> <li>• <b>Article 130</b> authorizes the <b>CJI to appoint other place or places as seat of the Supreme Court.</b></li> <li>• <b>He can take decisions in this regard only with the approval of the President.</b></li> </ul> <p>This provision is <b>only optional and not compulsory</b> - no court can give any direction either to the President or to the Chief Justice to appoint any other place as the seat of the Supreme Court.</p> <p><u>Languages of Higher Judiciary</u></p> <ul style="list-style-type: none"> <li>• <b>Article 348(1) (a)</b> states that unless Parliament by law provides otherwise, <b>all proceedings before the Supreme Court and in every High Court shall be conducted in English.</b></li> <li>• <b>Article 348(2)</b> provides further that notwithstanding the provisions of Article 348(1), the <b>Governor of a state</b> may, with the <b>previous consent of the President</b>, authorize the use of <b>Hindi or any other language</b> used for any <b>official purpose, in proceedings in the High Court.</b></li> <li>• States of <b>Uttar Pradesh, Bihar, Rajasthan and Madhya Pradesh</b> have already authorized the <b>use of Hindi</b> in proceedings before their respective high courts</li> <li>• Therefore, the <b>Constitution recognizes English as the primary language of the Supreme Court and the High Courts</b>, with the condition that when some other language is used in the proceedings of High Courts, judgments of the High Courts must be delivered in English.</li> </ul> <p><b>Official Languages Act 1963:</b></p> <ul style="list-style-type: none"> <li>• It <b>empowers the Governor of a state to, with previous consent of the President</b>; authorize the use of <b>Hindi/the official language</b> of the state, in addition to English, for the purpose of <b>any judgement, decree or order passed by the High Court of that state.</b></li> <li>• It further provides that where any judgement/decreed/order is passed in any such language it shall be <b>accompanied by a translation of the same in English.</b></li> </ul>
<b>Chief Election Commissioner</b>	<p><b>In News:</b> the current Election Commissioner, Rajiv Kumar will take over as the <b>next Chief Election Commissioner (CEC)</b></p> <p><b>Election Commission</b></p> <ul style="list-style-type: none"> <li>• <b>Part XV</b> of the Indian constitution deals with elections, and establishes a commission for these matters.</li> <li>• The Election Commission was established in accordance with the Constitution on <b>25th January 1950.</b></li> <li>• <b>Article 324 to 329</b> of the constitution deals with powers, function, tenure, eligibility, etc of the commission and the member</li> </ul> <p><b>Structure of the Commission</b></p> <ul style="list-style-type: none"> <li>• Election Commissioner Amendment Act 1989, it has been made a <b>multi-member body</b></li> <li>• The commission consists of <b>one Chief Election Commissioner and two Election Commissioners.</b></li> </ul>



	<ul style="list-style-type: none"> <li>• The <b>President appoints Chief Election Commissioner and Election Commissioners.</b></li> </ul> <p><b>Tenure</b> - They have a <b>fixed tenure of six years, or up to the age of 65 years, whichever is earlier.</b></p> <ul style="list-style-type: none"> <li>• They enjoy the <b>same status and receive salary and perks as available to Judges of the Supreme Court of India.</b></li> </ul> <p><b>Removal</b> - The Chief Election Commissioner can be removed from office only through a <b>process of removal similar to that of a Supreme Court judge by Parliament.</b></p> <ul style="list-style-type: none"> <li>• They <b>can resign anytime</b> or can also be removed before the expiry of their term.</li> </ul> <p><b>Functions</b></p> <ul style="list-style-type: none"> <li>• The body administers <b>elections to the Lok Sabha, Rajya Sabha, and State Legislative Assemblies</b> in India, and the <b>offices of the President and Vice President</b> in the country</li> <li>• To determine the <b>territorial areas</b> of the electoral constituencies throughout the country <b>on the basis of the Delimitation Commission Act of Parliament</b></li> <li>• To prepare and periodically <b>revise electoral rolls</b> and to register all eligible voters</li> <li>• To <b>grant recognition to political parties and allot election symbols to them</b></li> <li>• Election Commission ensures a level playing field for the political parties in election fray, through <b>strict observance</b> by them of a <b>Model Code of Conduct</b></li> <li>• The Commission has <b>advisory jurisdiction</b> in the matter of post election disqualification of sitting members of Parliament and State Legislatures</li> <li>• The opinion of the Commission in all such matters is binding on the President or, as the case may be, the Governor to whom such opinion is tendered             <ul style="list-style-type: none"> <li>◦ The Commission has the <b>power to disqualify a candidate</b> who has failed to lodge an account of his election expenses within the time and in the manner prescribed by law</li> </ul> </li> </ul>
<p><b>Chief of Defence Staff and top-level military reforms</b></p>	<p><b>Context:</b>The Government is yet to announce a successor to the country's top military post, post death of India's first Chief of Defence Staff (CDS) General Bipin Rawat.</p> <p>The reason for the delay: The Government is <b>reassessing the concept of the post as well as the Department of Military Affairs (DMA)</b> and is looking to streamline the setup.</p> <p><b>Role of the Chief of Defence Staff</b></p> <ul style="list-style-type: none"> <li>• <b>To bring in tri-service synergy and integration</b></li> <li>• Broad mandate of the CDS: includes <b>bringing about jointness in "operations, logistics, transport, training, support services, communications, repairs and maintenance of the three Services, within three years of the first CDS assuming office."</b></li> <li>• Bring about <b>synergy and optimize procurements</b>, training and logistics and facilitate restructuring of military commands for optimal utilisation of</li> </ul>

	<p>resources by bringing about jointness in operations, including through establishment of joint/ theatre commands.</p> <ul style="list-style-type: none"> <li>● <b>Evaluate plans “for ‘Out of Area Contingencies’, as well other contingencies such as Humanitarian Assistance and Disaster Relief (HADR)”.</b></li> <li>● The specialised tri-service divisions — special operations, defence cyber and defence space — were also brought under the ambit of the CDS.</li> </ul> <p><b>Why the rethink?</b></p> <ul style="list-style-type: none"> <li>● Dichotomy in the roles and responsibilities with the several hats worn by the CDS and also overlap in responsibilities between the DMA and Dept of Defense.</li> <li>● On the ambitious timelines set for the creation of theatre commands and also the number of commands and their envisaged format.</li> </ul> <p><b>The Way Forward:</b></p> <ul style="list-style-type: none"> <li>● To have a CDS with operational powers who will after due legislative changes have theatre commanders report to him while the Service Chiefs will look after the raise, train and sustain functions of respective Services.</li> <li>● In this direction, it is being looked at if the Chief of Integrated Defence Staff to the Chairman, Chiefs of Staff Committee (CISC) can function as the Secretary DMA reporting directly to the CDS.</li> </ul>
<b>Lieutenant Governor of Delhi</b>	<p><b>In News: Vinai Kumar Saxena is appointed as Delhi’s new Lieutenant Governor by President of India</b></p> <p><b>The Lieutenant Governor and the NCT Delhi:</b></p> <p><b>Constitutional provisions:</b></p> <ul style="list-style-type: none"> <li>● Under <b>Article 239</b> of the Constitution of India, <b>the administration of UT’s is handled by an administrator appointed by the President of India.</b></li> <li>● However, the <b>Constitution (Sixty-ninth Amendment) Act, 1991</b> introduced <b>Article 239AA</b> which created an elected Legislative Assembly and a Council of Ministers including a Chief Minister for NCT Delhi.</li> <li>● <b>The Lieutenant Governor (LG) of Delhi was designated the Administrator of the NCT Delhi.</b></li> </ul> <p><b>Powers of Lieutenant Governor:</b></p> <ul style="list-style-type: none"> <li>● He/She <b>acts on the aid and advice of the Council of Ministers</b>, except when he/she is compelled to act in his/her discretion.</li> <li>● If the <b>LG and the Ministers disagree on any issue, the LG shall refer it to the President for decision and act accordingly.</b></li> <li>● When such a decision is pending with the President, it shall be competent for the LG to take prompt action in any scenario where the matter (in his opinion) is urgent.</li> <li>● <b>Under Article 239AB</b>, the President may, on receipt of a report from the LG or otherwise, <b>suspend the operation of any provision of Article 239AA</b> by order when a situation arises in which the administration of the NCT cannot be carried out in accordance with the provisions of Article 239AA.</li> </ul>
<b>Inter State Council</b>	<p><b>In News: The Centre has reconstituted the Inter-State Council</b></p>

- **Headed by the PM**, the Council will comprise six Union ministers, besides the Chief Ministers of the 28 states and UTs with a legislature, and administrators of UTs without a legislature.
- It will also have 10 Union ministers as permanent invitees.
- The government has also **reconstituted the standing committee of the Council, with Union Home Minister as its chairman**

#### Constitutional Provisions

- According to **Article 263** of the Indian Constitution, **an Inter-State Council (ISC) may be constituted "if it seems to the President at any time that the public interests would be served by the creation of a Council."**
- **It was set up in 1990** through a presidential ordinance for the first time as per the recommendations of the **Sarkaria Commission under the Ministry of Home Affairs**.

#### Inter-State Council Composition

- **The Prime Minister acts as the chairman of the council.**
- Union Ministers of Cabinet rank in the Union; Council of Ministers nominated by the Prime Minister.
- **Chief Ministers of all states**; Chief Ministers of Union Territories having a Legislative Assembly
- Administrators of UTs not having a Legislative Assembly; Governors of the states being administered under President's rule

#### Functions of Inter-State Council

- Inter-State Council is a **recommendatory body** with duties to investigate and discuss the subjects of **common interest between the Union and State(s)** or among the States, making recommendations particularly for **better coordination of policy and action** on these subjects and deliberating upon such other matters of general interest to the States which may be referred to it by its Chairman





## ECONOMY



### National Research Foundation (NRF)

#### Stats: India's funding on R&D

- It has **remained static and hovers between 0.6 to 0.8% of GDP** over a decade
- While **India's global R&D expenditure remains static at 1-3%** of the global total, the U.S. and China accounted for 25% and 23%, respectively.
- The World Bank statistics indicate that India had 255 researchers per million people in 2017
- In contrast to 8,342 per million in Israel, 7,597 in Sweden and 7,498 in South Korea. Compared to 111 in the U.S. and 423 in China, India has only 15 researchers per 1,00,000 population.

#### National Research Foundation (NRF)

- The **2021-22 budget offered 10,000 crore (\$1.37 billion) every year starting from 2021, over the next five years**, for a new funding agency NRF.
- It was in tune with **the National Education Policy 2020**
- The NRF will **be functioning as a structure that will connect the industry, academia and the R&D of the country.**
- The NRF will provide a **reliable base of merit-based but equitable peer-reviewed research funding**, helping to develop a culture of research in the country through suitable incentives for and recognition of outstanding research.

### e - shram

**In news:** Union Labour and Employment Ministry said that the Ministry was working on a mechanism to process accident insurance claims by unorganised workers registered on the e-Shram portal

#### e - shram portal

- The portal was launched with the aim of creating a national database of unorganised workers (NDUW)
- **Ministry of Labour & Employment is responsible for the implementation**
- **e-Shram Card: Workers will be provided with an e-SHRAM card which will have a 12 digit unique number.**
- **Single window:** This will be a single-point reference to help authorities reach out to and track workers in the informal sector, and offer welfare in times of crisis.
- **Who all are included:** The database will include construction workers, migrant workers, gig and platform workers, street vendors, domestic workers, agriculture workers, migrant workers and similar other sub-groups of unorganised workers.
- **Self enrolment:** It will be available in public for open access where workers can self-enroll through Aadhaar and mobile numbers.
- **Important Provision:** Accidental insurance - After registering, he/she will get an Accidental Insurance cover of 2 Lakh

	<ul style="list-style-type: none"> <li>○ The scheme would allow the workers to get the direct benefit transfer (DBT) through the e-Shram unique ID number</li> </ul>																
<b>CRR and Repo Rate</b>	<p><b>In News:</b> RBI raised key policy rates to fight inflation</p> <ul style="list-style-type: none"> <li>● RBI raised the repo rate by 40 basis points and CRR by 50 basis points</li> </ul> <p><b>RBI Monetary Policy tools to control inflation</b></p> <p><b>Monetary Policy Measures</b></p> <ul style="list-style-type: none"> <li>● Monetary policy refers to the policy of the <b>central Bank with regard to use of monetary instruments</b> under its control to <b>manage money supply and interest rates</b>.</li> <li>● In 2016, the <b>Reserve Bank of India (RBI) Act, 1934</b> was amended to provide a <b>statutory basis</b> for the implementation of the flexible inflation targeting framework.</li> <li>● Under the amended RBI Act, 1934, the <b>central government is empowered to constitute a six-member Monetary Policy Committee (MPC)</b>.</li> </ul> <p><b>Composition:</b> the MPC shall consist of 6 members:</p> <ul style="list-style-type: none"> <li>● <b>RBI Governor</b> as its ex officio chairperson,</li> <li>● <b>Deputy Governor</b> in charge of monetary policy,</li> <li>● <b>An officer of the Bank to be nominated by the Central Board,</b></li> <li>● <b>Three persons to be appointed by the central government</b></li> </ul> <table border="1"> <thead> <tr> <th>Tools</th><th>Features</th></tr> </thead> <tbody> <tr> <td><b>Cash Reserve Ratio (CRR)</b></td><td>The average daily balance that a bank is <b>required to maintain with the Reserve Bank</b> as a share of such per cent of its <b>Net demand and time liabilities (NDTL)</b> that the Reserve Bank may notify from time to time.</td></tr> <tr> <td><b>Statutory Liquidity Ratio (SLR)</b></td><td>The <b>share of NDTL</b> that a bank is required to maintain in <b>safe and liquid assets</b>, such as, government securities, cash and gold.</td></tr> <tr> <td><b>Repo Rate</b></td><td>The <b>interest rate</b> at which the Reserve Bank provides overnight liquidity to banks against the collateral of government and other approved securities under the liquidity adjustment facility (LAF).</td></tr> <tr> <td><b>Reverse Repo Rate</b></td><td>The <b>interest rate</b> at which the Reserve Bank absorbs liquidity, on an overnight basis, from banks against the collateral of eligible government securities under the LAF.</td></tr> <tr> <td><b>Marginal Standing facility (MSF)</b></td><td>It is the <b>rate at which Banks can borrow short term funds from RBI</b>. Under MSF, banks can borrow funds from the RBI by pledging <b>government securities within the limits of the SLR</b>.</td></tr> <tr> <td><b>Open Market Operations (OMOs)</b></td><td>These include both, <b>outright purchase and sale of government securities</b>, for injection and absorption of durable liquidity, respectively.</td></tr> <tr> <td><b>Market Stabilisation Scheme (MSS)</b></td><td>It is a monetary policy intervention by the RBI to <b>withdraw excess liquidity (or money supply) by selling government securities in the economy</b>, the mobilised cash is held in a separate government account with the Reserve Bank.</td></tr> </tbody> </table>	Tools	Features	<b>Cash Reserve Ratio (CRR)</b>	The average daily balance that a bank is <b>required to maintain with the Reserve Bank</b> as a share of such per cent of its <b>Net demand and time liabilities (NDTL)</b> that the Reserve Bank may notify from time to time.	<b>Statutory Liquidity Ratio (SLR)</b>	The <b>share of NDTL</b> that a bank is required to maintain in <b>safe and liquid assets</b> , such as, government securities, cash and gold.	<b>Repo Rate</b>	The <b>interest rate</b> at which the Reserve Bank provides overnight liquidity to banks against the collateral of government and other approved securities under the liquidity adjustment facility (LAF).	<b>Reverse Repo Rate</b>	The <b>interest rate</b> at which the Reserve Bank absorbs liquidity, on an overnight basis, from banks against the collateral of eligible government securities under the LAF.	<b>Marginal Standing facility (MSF)</b>	It is the <b>rate at which Banks can borrow short term funds from RBI</b> . Under MSF, banks can borrow funds from the RBI by pledging <b>government securities within the limits of the SLR</b> .	<b>Open Market Operations (OMOs)</b>	These include both, <b>outright purchase and sale of government securities</b> , for injection and absorption of durable liquidity, respectively.	<b>Market Stabilisation Scheme (MSS)</b>	It is a monetary policy intervention by the RBI to <b>withdraw excess liquidity (or money supply) by selling government securities in the economy</b> , the mobilised cash is held in a separate government account with the Reserve Bank.
Tools	Features																
<b>Cash Reserve Ratio (CRR)</b>	The average daily balance that a bank is <b>required to maintain with the Reserve Bank</b> as a share of such per cent of its <b>Net demand and time liabilities (NDTL)</b> that the Reserve Bank may notify from time to time.																
<b>Statutory Liquidity Ratio (SLR)</b>	The <b>share of NDTL</b> that a bank is required to maintain in <b>safe and liquid assets</b> , such as, government securities, cash and gold.																
<b>Repo Rate</b>	The <b>interest rate</b> at which the Reserve Bank provides overnight liquidity to banks against the collateral of government and other approved securities under the liquidity adjustment facility (LAF).																
<b>Reverse Repo Rate</b>	The <b>interest rate</b> at which the Reserve Bank absorbs liquidity, on an overnight basis, from banks against the collateral of eligible government securities under the LAF.																
<b>Marginal Standing facility (MSF)</b>	It is the <b>rate at which Banks can borrow short term funds from RBI</b> . Under MSF, banks can borrow funds from the RBI by pledging <b>government securities within the limits of the SLR</b> .																
<b>Open Market Operations (OMOs)</b>	These include both, <b>outright purchase and sale of government securities</b> , for injection and absorption of durable liquidity, respectively.																
<b>Market Stabilisation Scheme (MSS)</b>	It is a monetary policy intervention by the RBI to <b>withdraw excess liquidity (or money supply) by selling government securities in the economy</b> , the mobilised cash is held in a separate government account with the Reserve Bank.																

	<p><b>Note:</b> The Policy Corridor in monetary policy of the RBI refers to the area between the reverse repo rate and the MSF rate</p> <ul style="list-style-type: none"> <li>• <b>MSF is the upper band of the Policy Corridor</b> (lower band being the Reverse Repo rate). <b>Thus the value of MSF is tied with the value of Repo Rate.</b> Usually RBI changes Repo rate and MSF changes automatically.</li> </ul> <p>With this <b>Quantitative Tools</b> RBI also uses <b>Qualitative Tools</b> like fixing margin requirement, moral Suasion and selective credit control to fight inflation</p>
<b>Bond Yields</b>	<p><b>In News:</b> Government said to <b>urge Reserve Bank to help push bond yields lower</b></p> <p><b>Bond</b></p> <ul style="list-style-type: none"> <li>• A bond is a <b>debt investment</b>.</li> <li>• Corporates or governments issue bonds directly to investors, instead of obtaining loans from a bank.</li> <li>• This is to <b>raise money and finance a variety of projects and activities</b>.</li> </ul> <p><b>Bond Yield</b></p> <ul style="list-style-type: none"> <li>• Yield - In simple terms, <b>yield is the amount of return that an investor will realize on a bond</b>.</li> <li>• If the investor <b>holds the bond to maturity</b>, s/he will be guaranteed to get <b>the principal amount back plus the interest</b>.</li> <li>• However, a bond does not necessarily have to be held to maturity by the investors.</li> <li>• Instead, <b>investors may sell them for a higher or lower price to other investors</b>.</li> <li>• The <b>bond prices and yields generally move in opposite directions</b>.</li> <li>• This is because, <b>as a bond's price increases, its yield to maturity falls</b>.</li> </ul> <p><b>Current Status:</b> The yields have hit their highest since 2019, as inflation risks push foreign investors to sell bonds</p> <p><b>How does the RBI control bond yield?</b></p> <ul style="list-style-type: none"> <li>• The RBI aims to <b>keep yields lower</b> as that reduces borrowing costs for the government while preventing any upward movement in lending rates in the market.</li> <li>• Thus it controls <b>bond yields either by buying back government bonds or conduct open market operations to cool yields</b></li> </ul>
<b>Exchange Rate</b>	<p><b>In News:</b> The rupee fell to an all-time low and is currently at 77.20 to the American dollar</p> <p><b>What does exchange rate signify?</b></p> <ul style="list-style-type: none"> <li>• The <b>rupee's exchange rate vis-a-vis a particular currency tells us how many rupees are required to buy that particular currency</b></li> <li>• If the rupee's exchange rate "falls", it implies that buying American goods would become costlier.</li> <li>• At the same time, <b>Indian exporters may benefit because their goods now are more attractive (cheaper) to the American customers</b>.</li> </ul> <p><b>How is the exchange rate determined?</b></p> <ul style="list-style-type: none"> <li>• In a free-market economy, the <b>exchange rate is decided by the supply and demand for rupees and dollars</b>.</li> <li>• However, in India, the exchange rate is not fully determined by the market</li> </ul>



	<ul style="list-style-type: none"> <li>From time to time, the <b>RBI intervenes in the foreign exchange (forex)</b> market to ensure that the rupee “price” does not fluctuate too much or that it doesn’t rise or fall too much all at once</li> </ul> <p><b>What determines the rupee’s demand and supply vis-a-vis other currencies?</b></p> <ul style="list-style-type: none"> <li>The <b>Balance of Payment</b> is essentially the overall ledger of <b>how much rupee was demanded by the rest of the world and how much foreign currency</b> (that is, currencies of all countries) was demanded by Indians.</li> </ul> <p><b>Balance of Payment(BoP)</b></p> <ul style="list-style-type: none"> <li>Balance of Payment (BoP) of a country can be defined as a <b>systematic statement of all economic transactions of a country with the rest of the world</b> during a specific period usually one year.</li> <li>It indicates <b>whether the country has a surplus or a deficit on trade.</b></li> <li>When exports exceed imports, there is a <b>trade surplus</b> and when imports exceed exports there is a <b>trade deficit.</b></li> <li><b>BoP can be used as an indicator to determine whether the country’s currency value is appreciating or depreciating.</b></li> </ul> <p><b>How does the rupee’s exchange rate fluctuate?</b></p> <ul style="list-style-type: none"> <li><b>Exports and imports</b> - affect exchange rate as exports earn of foreign currency while imports require payments in foreign currency.</li> <li><b>Interest rate</b> - on government securities and bonds, corporate securities etc affect the outflow and inflow of foreign currency; the US central bank raises its interest rates and looks set to raise them further in the future</li> <li><b>Intervention of the Reserve Bank of India</b></li> <li><b>Inflation (crude oil prices go up sharply)</b></li> </ul> <p><b>What is the RBI’s role in this?</b></p> <ul style="list-style-type: none"> <li>To soften the rupee’s fall, the RBI would <b>sell in the market some of the dollars</b> it has in its forex reserves.</li> <li>This will soak up a lot of rupees from the market, thus moderating the demand-supply gap between rupee and dollars.</li> <li>The <b>eventual impact of a fall depends on several factors.</b> For instance, a fall can help India’s exporters — unless they import raw materials, which would become costlier.</li> </ul>
<b>Inflation</b>	<p><b>Context:</b> Since the start of the inflation-targeting regime of RBI, most of the focus has been on consumer price inflation. That’s because that is the inflation rate that RBI seeks to target and keep at the 4% mark. But over the past year, the inflation in wholesale prices has been surging in a rather unprecedented manner.</p> <ul style="list-style-type: none"> <li>Since April last year, WPI (wholesale price index) based inflation has been above 10% in every single month.</li> <li>In April 2022, WPI inflation crossed another psychological mark: it went beyond 15%.</li> </ul> <p>With such high levels of headline inflation, it is clear that most components of WPI are witnessing high inflation.</p> <p><b>What’s fuelling WPI inflation?</b></p> <ul style="list-style-type: none"> <li>While the highest inflation has been in fuel prices, it is the smallest contributor to the overall index (Much before Ukrainian crisis).</li> </ul>

	<ul style="list-style-type: none"> <li>• While manufactured products inflation is the least, it is likely to have had almost six-times the impact on the overall inflation because of the weight.</li> <li>• The heat wave led to a spike in prices of perishables such as fruits, vegetables and milk, which along with a spike in tea prices pushed up primary food inflation.</li> <li>• Much of the inflation spike is being seen as a result of the Russia-Ukraine conflict, with the contribution in retail inflation being seen at three-fourths of the index.</li> </ul> <p><b>What next?</b></p> <ul style="list-style-type: none"> <li>• An increase in WPI-food inflation leads to <a href="#">higher food prices</a> for consumers as well. With WPI inflation remaining in double-digits, the probability of a repo hike in the June monetary policy has risen further.</li> <li>• One can expect retail food prices to possibly increase further simply on account of higher food inflation in the wholesale market.</li> <li>• Higher retail prices of food tend to spike wholesale food prices in turn. In other words, one can get into a vicious cycle if inflation is left unaddressed.</li> <li>• Imported inflation in the form of high energy and commodity prices is a fact of life, and it will continue to force RBI to take action. High WPI inflation will further convince RBI to raise interest rates and do so urgently.</li> </ul> <p><b>Tough Act for RBI:</b></p> <ul style="list-style-type: none"> <li>• The flip-side of raising interest rates sharply, however, is that they will dampen the overall demand in the Indian economy at a time when overall consumer demand is still fledgling.</li> <li>• The RBI, thus, has a tough balancing act to perform: contain inflation (especially from sources over which it has no control, such as high fuel prices) while ensuring not snuffing out domestic economic recovery.</li> </ul> <p><b>Some of the likely impacts of inflation:</b></p> <ul style="list-style-type: none"> <li>• Reduces people's purchasing power</li> <li>• Reduces overall demand</li> <li>• Harms savers and helps borrowers</li> <li>• Helps the government meet debt obligations</li> <li>• Mixed results for corporate profitability</li> <li>• Worsens the exchange rate</li> <li>• Leads to expectations of higher inflation</li> </ul>
<b>Goods and Service Tax</b>	<p><b>In News: SC says Centre and States have equal powers to make GST-related laws</b></p> <ul style="list-style-type: none"> <li>• It <b>confirms Gujarat HC ruling that government can't levy IGST on ocean freight imports</b></li> <li>• The Supreme Court in a judgment championing the importance of <b>"cooperative federalism" for the well-being of democracy</b> held that <b>Union and State legislatures have "equal, simultaneous and unique powers"</b> to make laws on Goods and Services Tax (GST) and the recommendations of the GST Council are not binding on them.</li> </ul>

## What next?

### FOR BUSINESSES

- Goods importers get some relief as they are no longer liable to pay GST on ocean freight charges; could seek refunds for past payments

### FOR THE CENTRE AND STATES

- Finance Ministry believes SC order only

reiterates the spirit in which the GST Council is functioning



- All but one decision of the Council has been reached by consensus so far

- The Council may be summoned soon to discuss SC verdict's implications



An administrative body created by the Constitution cannot have an overriding right on the legislature

TARUN BAJAJ, Revenue Secretary



The Centre had been arbitrarily imposing its decisions on States... We hope the verdict would pave the way for States to protect rights

K.N. BALAGOPAL, Kerala Finance Minister

## Reasons

- The recommendations of the GST Council are the product of a collaborative dialogue involving the Union and the States.
- They are **recommendatory** in nature
- The recommendations only have a **persuasive value**. To regard them as **binding would disrupt fiscal federalism** when both the Union and the States are conferred equal power to legislate on GST,"

## Background

### What is ocean freight?

- Ocean freight is a method of **transport by which goods and cargo is transported by ships via shipping lines**. Most of the world's trade is carried out via sea.

### Which are the sections of GST laws governing ocean freight?

- The CGST Act requires the **importers to pay IGST at 5% on ocean freight under the Reverse Charge Mechanism (RCM)**.
- Section 5(3) of the IGST Act**: This section notifies the supplies which are **taxable to GST under the reverse charge mechanism**. Under the reverse charge mechanism, a recipient of goods/service is liable to pay GST instead of the supplier.
- Under the notification Integrated Tax (Rate) dated 28th June 2017 the **Government has included the term importer under recipient category**.

### Gujarat High Court judgment explained

#### Mohit Minerals vs Union of India (UOI)

- The **importer was liable to make payment of IGST at 5% under on ocean freight service**. Here, both the **importer and the supplier are located in the non-taxable territory**.
- The **importer was required to pay IGST on ocean freight** which leads to double taxation

## Judgment

- The notification is subordinate to the GST Act.
- Such notifications making the taxpayer liable to IGST under reverse charge are **ultra vires** to the IGST Act.
- The High Court held that it is unconstitutional as there is no statutory sanction for levy and collection of such tax.



<b>RBI surplus transfer</b>	<p><b>In News:</b> The Reserve Bank of India (RBI) will transfer <b>Rs 30,307 crore as surplus to the government for fiscal ended March 2022 down 69% from the Rs 99,126 crore</b> in the year ended March 2021 and lower than the Rs 74,000 crore budgeted by the government for the current fiscal.</p> <ul style="list-style-type: none"> <li>The fall in the transferable surplus is because of the <b>increased interest the RBI had to pay banks which parked their surplus liquidity in the reverse repo window</b></li> </ul> <p><b>Background</b></p> <p><b>RBI's Earning:</b></p> <ul style="list-style-type: none"> <li><b>Returns earned on its foreign currency assets</b></li> <li><b>Interest on its holdings of local rupee-denominated government bonds or securities</b>, and while lending to banks for very short tenures, such as overnight.</li> <li><b>Management commission on handling the borrowings of state governments</b> and the central government.</li> </ul> <p><b>RBI's Expenditure:</b></p> <p><b>Printing of currency notes and on staff</b>, besides the commission it gives to banks for undertaking transactions on behalf of the government across the country, and to primary dealers, including banks, for underwriting some of these borrowings</p> <ul style="list-style-type: none"> <li>The <b>Surplus Distribution Policy of RBI</b> that was finalized is in line with the <b>recommendations of the Bimal Jalan committee</b> that was formed by the RBI, in consultation to review the extant <b>Economic Capital Framework of the RBI</b>.</li> <li>In view of the RBI's function as a lender of last resort, it needs to maintain some <b>Contingent Risk Buffer (CRB)</b> to insure the economy against any tail risk of financial stability crisis.</li> <li>The <b>Jalan Committee recommended that the CRB needs to be maintained at a range of 5.5% to 6.5% of the RBI's balance sheet</b>.</li> <li>The surplus transfer policy is now formula based and thus transparent, which is an important departure from the past.</li> </ul>
<b>Fuel tax</b>	<p><b>In News:</b> The <b>Union government announced a reduction in the excise duty on petrol and diesel</b> by Rs 8 per litre and Rs 6 per litre respectively.</p> <ul style="list-style-type: none"> <li>The government also <b>reduced the customs duty on raw materials and intermediaries for plastic products and iron and steel</b>.</li> </ul> <p><b>Reason for reduction</b></p> <ul style="list-style-type: none"> <li>These decisions are <b>driven by the desire to cool the surge in inflation</b> — recent data showed that retail inflation had risen to an eight-year high of 7.9 per cent in April, while wholesale inflation has been in double digits for 13 consecutive months.</li> <li>This is the <b>second time in the recent past that the Centre has cut fuel taxes</b>. In November last year, the Centre had lowered the excise duty on petrol by Rs 5 and by Rs 10 on diesel.</li> </ul> <p><b>The entire burden of the tax cuts will be borne by the Centre</b></p>

	<ul style="list-style-type: none"> <li>• The <b>entire duty reduction in petrol and diesel announced has been done out of the Road &amp; Infrastructure Cess (RIC) component</b> of the taxes levied on petroleum products so the entire burden of the tax cuts will be borne by the Centre</li> <li>• Allaying concerns that the duty cuts will lower the devolution of taxes to States, the Finance Minister said that the basic excise duty on petro products, which is sharable with States, has not been touched.</li> </ul> <p><b>Taxes levied on petrol and diesel</b></p> <ul style="list-style-type: none"> <li>• The total taxes levied on petrol and diesel include a <b>Basic Excise Duty (BED), a Special Additional Excise duty (SAED), the Road &amp; Infrastructure Cess (RIC) and the Agriculture &amp; Infrastructure Development Cess (AIDC)</b>, of which <b>only the BED is sharable with States</b></li> <li>• The two cuts announced (November and the present one) is from Road &amp; Infrastructure Cess (RIC) component of the taxes levied on petroleum products</li> </ul>
<p><b>PM GatiShakti</b></p>	<p><b>In News:</b> The Department for Promotion of Industry and Internal Trade (DPIIT) stated that <b>all logistics and connectivity infrastructure projects, entailing an investment of over Rs 500 crore will route through the network planning group (NPG) constituted under the PM GatiShakti initiative.</b></p> <ul style="list-style-type: none"> <li>• The move will <b>bring down the logistic cost and promote effective and efficient planning of infrastructure projects.</b></li> <li>• <b>All the departments will approach the NPG first for approval before making a detailed project reports at the planning stage, adding after the NPG's clearance, the project would follow the normal procedure of approval by the finance ministry and the Cabinet, depending upon the projects</b></li> </ul> <p><b><u>PM GatiShakti</u> initiative</b></p> <ul style="list-style-type: none"> <li>• The government of India has launched the <b>ambitious Gati Shakti scheme or National Master Plan for multi-modal connectivity plan</b>, with the aim of <b>coordinated planning and execution of infrastructure projects to bring down logistics costs.</b></li> <li>• It <b>subsumed the Rs 110 lakh crore National Infrastructure Pipeline that was launched in 2019.</b></li> <li>• Besides cutting logistics costs, the scheme <b>aimed at increasing cargo handling capacity and reducing the turnaround time at ports to boost trade.</b></li> <li>• It also aims to have <b>11 industrial corridors and two new defence corridors - one in Tamil Nadu and other in Uttar Pradesh.</b></li> <li>• <b>Integrated Approach:</b> It intends to bring together 16 infrastructure related Ministries.</li> </ul>

A Giant Stride in India's \$5 Trillion Economy Goal

## Gati Shakti National Master Plan

Multimodal Connectivity Infrastructure to various Economic Zones

Targets upto 2024-25 for Ministry of Shipping



Increase in Cargo capacity at the Ports to 1,759 MMTPA from 1,282 MMTPA in 2020



Cargo movement on all National Waterways will be 95 million MT from 74 million MT in 2020



Cargo movement on Ganga to be increased from 9 to 29 million MT



- Implementation framework includes Empowered Group of Secretaries (EGOS), Network Planning Group (NPG) and Technical Support Unit (TSU) with required technical competencies.
- NPG consists of heads of the network planning wing of respective infrastructure ministries and it will assist the empowered group of secretaries (EGOS), which is headed by the cabinet secretary.
- EGOS consists of secretaries of 18 ministries as members and Head of Logistics Division, under the DPIIT, as member convenor.
- To enhance optimization to avoid duplication of works for holistic development of any region as well as reducing logistics costs through micro-plan detailing, the Technical Support Unit (TSU) is approved
- The PM GatiShakti NMP is intended to break Departmental Silos and bring in more holistic and integrated planning and execution of projects with a view to address the issues of Multi Modal connectivity and last mile connectivity. This will help in bringing down the logistics cost. This will translate into enormous economic gains to consumers, farmers, youth as well as those engaged in businesses.

### Sugar export curbs and their impact

**In News:** The GOI has notified that **sugar exports will be restricted, or allowed only with permission**

- The government **decided to "restrict" the export of sugar, effective from June 1**

**What are the latest curbs?**

- The government has **moved export of sugar from the 'open category', which requires no government intervention, to 'restricted' category.**
- This means that **export of sugar is allowed only with specific permission** from the Directorate of Sugar, Department of Food and Public Distribution (DFPD), Ministry of Consumer Affairs, Food & Public Distribution.

**Why the curbs now?**

- The curbs, have been **ordered to maintain "domestic availability and price stability of sugar"**
- During the **festival period** of October and November, the **demand for sugar increases** and therefore, the Centre is committed to ensure availability of sugar for the lean period

- Also the **global situation reflects a shortage of sugar, especially due to lower production in Brazil.**
- This may **trigger the demand globally**

**Exports****Increase in exports**

- Increase in export is because of the fact that **Brazil produced more ethanol than sugar given the exceptional rise in fuel prices.**
  - This, and **drought hitting other big sugar producers like Thailand** helped India venture in countries which otherwise were dependent on Brazilian sugar.
  - **India is the second largest sugar producer in the world after Brazil.**
- However, Brazil has always led in terms of exports.







## INTERNATIONAL RELATIONS

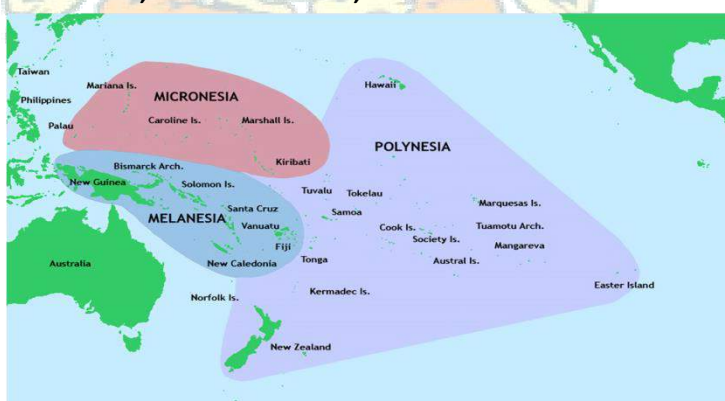


### Common Development Vision

**In News:** China wants 10 Pacific nations to endorse sweeping agreement  
China's move comes as its Foreign Minister and a 20-strong delegation begin a visit to the region (Pacific islands) this week.

#### Common Development Vision

- It is a **draft agreement**
- China wants **10 small Pacific nations to endorse a sweeping agreement covering everything from security to fisheries**
- The agreement shows that China **wants to train Pacific police officers, team up on "traditional and non-traditional security" and expand law enforcement cooperation.**
- China also wants to **jointly develop a marine plan for fisheries** ·
- The agreement would also see the **nations "expand exchanges between governments, legislatures and political parties."**
- The agreement says that **China and the Pacific countries would jointly formulate a marine spatial plan** "to optimize the layout of the marine economy, and develop and utilize marine resources rationally, so as to promote a sustainable development of the blue economy."
- It also outlines - **immediate incentives that China is offering to the Pacific nations** - China to implement 2,500 government scholarships through 2025 ETC
- The draft agreement also stipulates that the Pacific countries **"firmly abide" by the one-China principle, under which Taiwan, a self-ruled island democracy, is considered by Beijing to be part of China.**
- The countries China hopes will endorse the "Common Development Vision" - the **Solomon Islands, Kiribati, Samoa, Fiji, Tonga, Vanuatu, Papua New Guinea, the Cook Islands, Niue and the Federated States of Micronesia**



Micronesia has opposed the agreement citing it as the single most game-changing proposed agreement in the Pacific region

### Shanghai Cooperation Organisation (SCO)

#### What is SCO?

- SCO is a **permanent intergovernmental international organisation.**
- It's a Eurasian **political, economic and military organisation** aiming to maintain peace, security and stability in the region.

	<ul style="list-style-type: none"> <li>It was created in <b>2001</b>.</li> <li>The SCO Charter was signed in 2002, and entered into force in 2003.</li> </ul> <p><b>Genesis</b></p> <ul style="list-style-type: none"> <li>Prior to the creation of SCO in 2001, <b>Kazakhstan, China, Kyrgyzstan, Russia and Tajikistan were members of the Shanghai Five</b>.</li> <li>Shanghai Five (1996) emerged from a series of border demarcation and demilitarization talks which the four former Soviet republics held with China to ensure stability along the borders.</li> <li><b>Following the accession of Uzbekistan to the organisation in 2001, the Shanghai Five was renamed the SCO.</b></li> <li><b>India and Pakistan became members in 2017.</b></li> </ul> <p><b>Structure of the Shanghai Cooperation Organisation</b></p> <ul style="list-style-type: none"> <li><b>Heads of State Council</b> – The supreme SCO body which decides its internal functioning and its interaction with other States &amp; international organisations, and considers international issues.</li> <li><b>Heads of Government Council</b> – Approves the budget, considers and decides upon issues related economic spheres of interaction within SCO.</li> <li><b>Council of Ministers of Foreign Affairs</b> – Considers issues related to day-to-day activities.</li> <li><b>Regional Anti-Terrorist Structure (RATS)</b> – Established to combat terrorism, separatism and extremism.</li> </ul> <p><b>SCO Secretariat</b> – Based in Beijing to provide informational, analytical &amp; organizational support.</p>
<p><b>Quad Summit - Indo-Pacific Partnership for Maritime Domain Awareness (IPMDA)</b></p>	<p><b>In News:</b> the fourth <a href="#">Quad</a> summit was held in Japan</p> <p>There were <b>divergences among the leaders of Australia, India, Japan and US on the war in Europe(Ukraine crisis)</b> but <b>unanimity in their response to China's belligerence</b> as they strongly opposed "any coercive, provocative or unilateral actions that seek to change the status quo" in the Indo-Pacific.</p> <ul style="list-style-type: none"> <li>Apart from the Ukraine crisis, the leaders also took note of the <b>post-coup crackdown in Myanmar, called for the release of "all political detainees, including foreigners"</b> and called for "swift restoration of democracy".</li> <li>The summit condemned "<b>unequivocally terrorism and violent extremism in all its forms and manifestations</b>" and condemned the <b>26/11 Mumbai and 2016 Pathankot attacks</b>.</li> </ul> <p><b>The event witnessed the launch of several initiatives</b></p> <p><b>Indo-Pacific Partnership for Maritime Domain Awareness (IPMDA)</b></p> <ul style="list-style-type: none"> <li>The Quad leaders announced the <b>formation of the Indo-Pacific Partnership for Maritime Domain Awareness (IPMDA)</b> which will build a "faster, wider, and more accurate maritime picture of near-real-time activities in partners' waters."</li> <li>The IPMDA will be a <b>satellite-based maritime security system</b> aiming for a "<b>fundamental requirement for peace, stability, and prosperity</b>" in the Indo-Pacific region.</li> <li>The initiative will <b>integrate three critical regions of the Pacific Islands - Southeast Asia, and the Indian Ocean region</b> - and allow <b>tracking of "dark shipping"</b> and other "tactical activities".</li> </ul>

	<ul style="list-style-type: none"> <li>• <b>"Dark ships"</b> are vessels with their <b>Automatic Identification System (AIS)</b> - a <b>transponder system</b> - <b>switched off</b> so as not to be detectable.</li> <li>• It will enable these countries to <b>monitor illegal fishing even when the boats have turned off the transponders</b> which are typically used to track vessels.</li> <li>• The maritime system will also <b>improve the partners' ability to respond to climate and humanitarian events</b> and protect their fisheries - a vital need for many Indo-Pacific economies.</li> </ul> <p><b>Quad Climate Change Adaptation and Mitigation Package (Q-CHAMP)</b></p> <ul style="list-style-type: none"> <li>• The members also launched the "Quad Climate Change Adaptation and Mitigation Package (Q-CHAMP) with <b>"mitigation"</b> and <b>"adaptation"</b> as its <b>two pillars</b>.</li> <li>• The initiative will <b>help green shipping and foster the idea of a "shared green corridor"</b></li> </ul> <p><b>Quad Partnership on Humanitarian Assistance and Disaster Relief (HADR)</b></p> <ul style="list-style-type: none"> <li>• As part of the plan to <b>increase humanitarian footprint in the region</b>, the <b>leaders announced the establishment of the Quad Partnership on Humanitarian Assistance and Disaster Relief (HADR)</b> in the Indo Pacific region.</li> </ul> <p>The grouping decided to enhance <b>sharing of data</b> as part of the <b>"Quad Satellite Data Portal"</b> that will enhance cooperation among the satellites of the member countries.</p> <p>The Tokyo summit witnessed the launch of the <b>Quad Fellowship</b> that will <b>intensify people to people contact and foster academic exchanges</b>.</p>
<b>Information Fusion Centre for Indian Ocean Region(IFC-IOR)</b>	<ul style="list-style-type: none"> <li>• IFC-IOR is an <b>initiative of the Indian Navy supported by the Government of India established at Gurugram in December 2018</b>.</li> <li>• It is <b>co-located with the Information Management and Analysis Centre</b></li> <li>• The Information Fusion Centre is a <b>dedicated centre for performing the tasks of collation, fusion and dissemination of maritime information</b> among all partner countries.</li> <li>• The centre addresses the <b>twin purposes of situational awareness and law enforcement</b>.</li> <li>• The chief objective of the IFC-IOR is to <b>coordinate with regional countries on maritime issues and act as a regional repository of maritime data</b>.</li> <li>• It is the <b>single-point centre linking all coastal chain radar networks along the 7500 km Indian coastline and a few neighboring countries</b>.</li> <li>• It keeps track of the <b>shipping traffic as well as other important developments</b> in the region under a collaborative framework with partner countries.</li> <li>• It generates a <b>seamless real-time picture of the country's vast coastline</b>.</li> <li>• All countries which have signed white shipping information exchange agreements with India are IFC partners.</li> </ul> <p><b>IFC currently partners with 21 countries and 22 multi-national agencies.</b></p>
<b>BRICS Plus</b>	<ul style="list-style-type: none"> <li>• <b>'BRICS Plus'</b> was first mooted by <b>Chinese Foreign Minister Wang Yi in March 2017</b> with the objective of <b>widening the "circle of friends" of BRICS</b> that can bring unity among developing countries and enhance South-South cooperation.</li> </ul>

- The **initiative** is aimed at **upping the outreach activities of the BRICS countries** with the **Global South** and **building wider partnership** with emerging markets and developing countries
- There is **no consensus within the grouping on getting a permanent set of developing countries as BRICS Plus category.**
- Since any such **decision has to be taken through consensus**, **China's idea of 'BRICS Plus' cannot materialize without the approval of other member countries.**

#### BRICS

- BRICS is an **acronym** for the grouping of the world's leading emerging economies, namely **Brazil, Russia, India, China and South Africa.**
- The **BRICS Leaders' Summit is convened annually.**

#### Structure

- BRICS does not exist in the form of organization, but it is an annual summit between the supreme leaders of five nations.
- The **Chairmanship of the forum is rotated annually** among the members, in accordance with the acronym B-R-I-C-S.

#### Salient Features

- Together, BRICS accounts for about **40% of the world's population and about 30% of the GDP**, making it a critical economic engine.
- It's an **emerging investment market and global power bloc.**

#### Timeline

- The first **BRIC Summit took place in 2009 in the Russian Federation** and focused on issues such as reform of the global financial architecture.

South Africa was **invited to join BRIC in December 2010**, after which the group adopted the acronym BRICS.







## HISTORY, ART &amp; CULTURE



## Basava Jayanti

**In News:** Basava Jayanti is being celebrated on birthday of Basavanna, a Hindu Kannada poet of 12th century

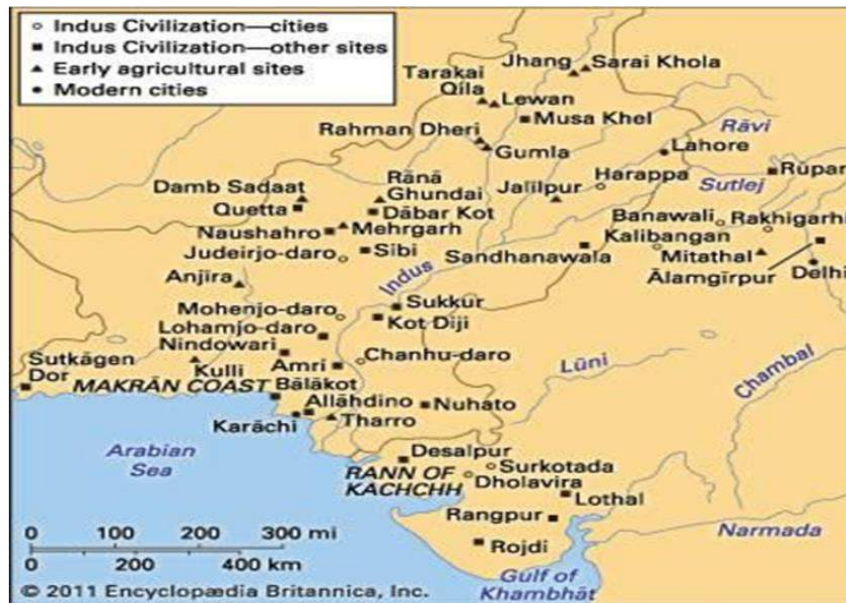


- Basaveshwara was born in **Bagevadi, Karnataka in 1131 AD.**
- Basavanna was an Indian 12th-century **statesman, philosopher, a poet and Lingayat saint in the Shiva-focused Bhakti movement** and a social reformer in Karnataka
- He was **appointed as karanika (Accountant)** in the initial stage and later as the **Prime minister in the Kalchuri king Bijjala's (1157-1167, AD) court**

**Contributions**

- Basavanna spread social awareness through **his poetry, popularly known as Vachanaas.**
- He **rejected gender or social discrimination, superstitions and rituals.**
- He established the **Anubhava Mantapa** (the “hall of spiritual experience”), which welcomed men and women from all socio-economic backgrounds to discuss spiritual and mundane questions of life, in open.
- It was the **first and foremost Parliament of India**, where Sharanas (citizens of welfare society) sat together and discussed the socialistic principles of a Democratic set up.
- He developed and inspired a new **devotional movement named Virashaivas - heroic worshippers of Shiva**
- Basavanna championed **devotional worship that rejected temple worship** and rituals led by Brahmins and replaced it with **personalized**

	<p>direct worship of Shiva through practices such as individually worn icons and symbols like a small linga.</p> <ul style="list-style-type: none"> <li>• Thus becoming the <b>founding saint of the Lingayat sect</b></li> </ul> <p><b>Sharana movement</b></p> <p>The <b>Sharana movement</b> he presided over attracted people from all castes, and like most strands of the Bhakti movement, <b>produced a corpus of literature, the vachanas that unveiled the spiritual universe of the Veerashaiva saints.</b></p>
Rakhigarhi	<p><b>In News: ASI's excavation at Harappan site of Rakhigarhi</b></p> <p><b>Rakhigarhi</b></p> <ul style="list-style-type: none"> <li>• It is a <b>Harappan site in Haryana's Hisar district</b></li> <li>• Rakhigarhi is the <b>largest Harappan site in the Indian subcontinent</b></li> <li>• The site is <b>located in the Sarasvati river plain</b>, some 27 km from the seasonal Ghaggar river</li> <li>• At Rakhigarhi, the excavations are being done to trace its beginnings and to study its gradual evolution from 6000 BCE (Pre-Harappan phase) to 2500 BCE.</li> </ul> <p><b>Ongoing Excavation findings:</b></p> <ul style="list-style-type: none"> <li>• The excavation have revealed the <b>structure of some houses, lanes and drainage system, and what could possibly be a jewellery-making unit</b></li> <li>• The ASI has also has also revealed <b>pieces of copper and gold jewellery, terracotta toys, besides thousands of earthen pots and seals at excavation</b></li> <li>• The noteworthy antiquity found at both the mounds (1 &amp; 3) <b>include steatite seals, terracotta unbaked sealing with relief of elephants and Harappan script.</b></li> </ul>



#### Previous excavation - Major findings



- A cylindrical seal with 5 Harappan characters on one side and a symbol of an alligator on the other
- Animal sacrificial pit lined with mud-brick and triangular and circular fire altars on the mud floor

**Findings also included** blades; terracotta and shell bangles, beads of semi precious stones, and copper objects; animal figurines, toy cart frame and wheel of terracotta; bone points; inscribed steatite seals and sealings

#### Panniru Tirumurai

##### Panniru Tirumurai

- The Panniru Tirumurai is, as the name suggests, a **12-part compilation book**
- This was a **work in progress for over 600 years** as it begins with the Thevaram — the hymns by **Sambandar, Appar and Sundarar** (the

	<p>foremost of the 63 Tamil Saivite saints collectively known as the Nayanmar or Arupathumooavar)</p> <ul style="list-style-type: none"> <li>• These were <b>compiled in the 11th century by the scholar Nambiyandar Nambi</b></li> <li>• After the Sangam works, this would perhaps be the <b>next voluminous corpus</b>.</li> </ul> <p>The 18,000 verses that it comprises are a <b>valuable archive</b> of not only the creative output of several Saiva saints but also of the various shrines they visited, their observations of life and the evolution of Tamil language.</p>
Iron tools in Tamil Nadu	<p><b>In News:</b> Carbon dating of excavated finds in Tamil Nadu pushes evidence of iron being used in India back to 4,200 years ago</p> <ul style="list-style-type: none"> <li>• Before this, <b>the earliest evidence of iron use was from 1900-2000 BCE for the country, and from 1500 BCE for Tamil Nadu</b></li> <li>• The latest evidence <b>dates the findings from Tamil Nadu to 2172 BCE</b>.</li> <li>• The excavations are from <b>Mayiladumparai near Krishnagiri in Tamil Nadu</b>, about 100 km south of Bengaluru.</li> <li>• <b>Mayiladumparai</b> is an important site with cultural material dating back between the <b>Microlithic (30,000 BCE) and Early Historic (600 BCE) ages</b>.</li> <li>• The site is <b>situated in the midst of several archaeological sites such as Togarapalli, Gangavaram, Sandur, Vedarthattakkal, Guttur, Gidlur, Sappamutlu and Kappalavad etc.</b> All these important archaeological sites lie within 10 km</li> </ul>  <p></p>
Raja Ram Mohan Roy	<p><b>In News:</b> Celebrating the <b>250th birth anniversary of Raja Ram Mohan Roy</b>.</p> <p><b>About Raja Ram Mohan Roy</b></p>



- He was the **father of Modern India's Renaissance** and a **tireless social reformer** who inaugurated the age of enlightenment and liberal reformist modernization in India



### His Life

- He was **born on 22 May 1772** in an orthodox Brahman family at **Radhanagar in Bengal**.
- His **early education** included the study of **Persian and Arabic** at Patna. In Benaras, he studied Sanskrit and read Vedas and Upanishads.
- Returning to his village, at the age of sixteen, he **wrote a rational critique of Hindu idol worship**.
- From **1803 to 1814**, he worked for East India Company as the **personal diwan** first of Woodforde and then of Digby.
- In 1814, he **resigned from his job** and moved to Calcutta in order to devote his life to religious, social and political reforms.
- In November 1830, he sailed for England to be present there to counteract the possible nullification of the Act banning Sati.
- He was given the title of '**Raja**' by the titular Mughal Emperor of Delhi, Akbar II whose grievances the former was to present before the British king.

### Ideology

- He was greatly influenced by western modern thought and stressed on **rationalism and modern scientific approach**.
- He **believed that religious orthodoxies** have become causes of **injury and detrimental to social life and sources of trouble** and bewilderment to the people, instead of tending to the amelioration of the condition of society.
- Roy concluded that **religious reform is both social reform and political modernisation**.
- He was attracted to **Islamic monotheism**. He said that **monotheism is also the fundamental message of Vedanta**.

- His idea of a single, unitarian god was a corrective to the polytheism of orthodox Hinduism and to Christian trinitarianism.
- He believed in **social equality of all human beings and thus was a strong opposer of the caste system.**

#### Brahmo Samaj

- Roy **founded Brahmo Sabha in 1828**, which was later renamed as Brahmo Samaj.
- Its chief **aim was the worship of the eternal God**. It was **against priesthood, rituals and sacrifices.**
- It was the **first intellectual reform movement in modern India**. It led to the emergence of **rationalism and enlightenment in India** which indirectly contributed to the nationalist movement.
- It was the forerunner of all social, religious and political movements of modern India.

#### Contributions

##### Social reforms:

- He founded the **Atmiya Sabha in 1814**, the **Calcutta Unitarian Association in 1821**, and the **Brahmo Sabha in 1828** which later became the Brahmo Samaj
- He campaigned **against the caste system, untouchability, superstitions** and use of intoxicants.
- He was well known for his pioneering thought and action on **the emancipation of women and especially on the abolition of sati and widow remarriage.**
- He **attacked child marriage, illiteracy of women and the degraded state of widows** and demanded the **right of inheritance and property for women.**
- It was his relentless advocacy alongside contemporaries such as Ishwar Chandra Vidyasagar that finally led to the **abolition of Sati under the governor generalship of William Bentinck in 1829.**

##### Educational reforms:

- He supported **David Hare's efforts to found the Hindu College in 1817**, while Roy's English school taught mechanics and Voltaire's philosophy.
- He followed it up with the **Anglo-Hindu School in 1822** and, in 1830, **assisted Alexander Duff to set up the General Assembly's Institution**, which later became the Scottish Church College.

- In **1825**, he established **Vedanta College** where courses in both Indian learning and Western social and physical sciences were offered.

#### **Literary Works of Raja Ram Mohan Roy**

o Tuhfat-ul-Muwahhidin (180); Vedanta Gantha (1815); Translation of an abridgement of the Vedanta Sara (1816); Kenopanishads (1816); Ishopanishad (1816); Kathopanishad (1817); Mundaka Upanishad (1819); A Defence of Hindu Theism (1820); The Precepts of Jesus- The Guide to Peace and Happiness (1820); Bengali Grammar (1826); The Universal Religion (1829); History of Indian Philosophy (1829); Gaudiya Vyakaran (1833)

#### **Religious reforms:**

- Roy's first published work **Tuhfat-ul-Muwahhiddin** (a gift to deists) published in 1803 **exposed irrational religious beliefs and corrupt practices of the Hindus** as the belief in revelations, prophets, miracles etc.
- In 1814, he founded **Atmiya Sabha in Calcutta to campaign against idolatry, caste rigidities, meaningless rituals and other social ills.**
- In **Precepts of Jesus (1820)**, he tried to separate the moral and philosophical message of the New Testament.

#### **Political and Economic Reforms**

- Through his writings and activities, he supported the **movement for free press in India.**
- **Ram Mohan found three journals- The Brahmanical Magazine (1821); The Bengali weekly, Samvad Kaumudi (1821); and the Persian weekly, Mirat-ul-Akbar.**
- **Administrative reforms:** He demanded the Indianisation of superior services and separation of the executive from judiciary. He demanded equality between Indians and Europeans.
- Roy condemned **oppressive practices of Bengali zamindars and demanded fixation of**

He called for a reduction of export duties on Indian goods abroad



## GEOGRAPHY



<p><b>Chakma Tribes</b></p>	<p><b>In News:</b> Custodial death of a couple of Chakma community - Overlap of administration between <b>tribal customary laws and regular penal provisions</b></p> <ul style="list-style-type: none"> <li>Chakmas are one of the <b>major tribes of Tripura</b>.</li> <li>The <b>Tribal Areas of State Tripura</b> are administered under <b>sixth schedule of Indian constitution</b></li> </ul> <p><b>Sixth Schedule</b></p> <ul style="list-style-type: none"> <li>The provisions of the sixth schedule are provided under <b>Articles 244(2) and 275(1)</b> of the Indian Constitution.</li> <li>Administration of Tribal Areas in the States of <b>Assam, Meghalaya, Tripura and Mizoram</b> falls under sixth schedule of the constitution</li> <li>Most important provision is <b>tribal areas to be administered as Autonomous Districts and Autonomous Regions</b>.</li> <li><b>The Governor of the State</b> is empowered to determine the area or areas as administrative units of the Autonomous Districts and Autonomous Regions.</li> <li>If there are different tribes in an autonomous district, <b>the governor can divide the district into several autonomous regions</b>.</li> <li><b>Each Autonomous District shall have a District Council</b> consisting of not more than thirty members, out of which four are nominated by the Governor while the rest are elected on the basis of adult franchise.</li> <li>The elected members hold office for a term of five and nominated members to hold office during the pleasure of the governor.</li> <li><b>Autonomous District Councils and Regional Councils are endowed with certain legislative, executive, judicial and financial powers.</b></li> </ul> <p><b>Judicial Powers</b></p> <ul style="list-style-type: none"> <li>The <b>District and Regional Councils</b> are also <b>empowered to constitute Village and District Council Courts</b> for the trial of suits and cases where all parties to the dispute belong to Scheduled Tribes within the district.</li> <li>And <b>no other courts except the High Courts and the Supreme Court</b> have the jurisdiction over such suits or cases of the Council Courts.</li> <li>The region where the incident took place <b>falls under Tripura Tribal Area Autonomous District Council</b>.</li> </ul> <p><b>What Happened?</b></p> <ul style="list-style-type: none"> <li>Under Chakma laws, a couple who have eloped thrice are considered married</li> </ul> <p><i>As a precautionary measure, elders of the community seek the involvement of police in the case, thus leading to <b>grey zone administration between tribal customary laws and regular penal provisions</b>.</i></p>
<p><b>Urban Heat Islands</b></p>	<p><b>Context:</b> Several parts of the country are reeling under heat wave conditions. Cities, especially, are a lot hotter than rural areas. This is due to a phenomenon called an "urban heat island".</p>



The sun's heat and light reach urban and rural areas in the same way but the difference in temperature is mainly because of the surfaces in each environment and how they absorb and hold heat



#### What is an Urban Heat Island (UHI)?

- A local and temporary phenomenon experienced when certain pockets within a city experience higher heat load than surrounding or neighboring areas on the same day.
- The variations are mainly due to heat remaining trapped within locations that often resemble concrete jungles.
- The temperature variation can range between 3 to 5 degrees Celsius.

#### Why are cities hotter than rural areas?

Rural areas have relatively larger green cover in the form of plantations, farmlands, forests and trees as compared to urban spaces.


- This **green cover plays a major role in regulating heat** in its surroundings.
- **Transpiration is a natural way of heat regulation:** This is the scientific process of roots absorbing water from the soil, storing it in the leaves and stems of plants, before processing it and releasing it in the form of water vapour.

On the contrary, urban areas lack sufficient green cover or gardens and are often developed with high-rise buildings, roads, parking spaces, pavements and transit routes for public transport.

- As a result, heat regulation is either completely absent or man-made.
- Black or any dark coloured object absorbs all wavelengths of light and converts them to heat, while white reflects it.
- Cities usually have buildings constructed with glass, bricks, cement and concrete — all of which are dark-coloured materials, meaning they attract and absorb higher heat content.
- Water cannot flow easily through/via them
- Without a cycle of flowing and evaporating water, these surfaces have nothing to cool them down.
- Heat is also released by numerous human activities – vehicles, factories, household appliances, release heat in the environment and cause a spike in temperature.

Thus, forms temporary islands within cities where the heat remains trapped. These are urban heat islands that record higher day temperatures than other localities.

#### Impacts of UHI

	<ul style="list-style-type: none"> <li>● <b>Power/Energy costs:</b> Increases energy costs (e.g., for air conditioning), air pollution levels, and heat-related illness and mortality.</li> <li>● <b>Poor water and air quality:</b> As there are more pollutants, they are blocked from scattering and becoming less toxic by the urban landscape. Warm water from the UHI stresses the native species that have adapted to life in a cooler aquatic environment.</li> <li>● <b>Colonization by heat-loving species:</b> UHI increases the colonization of species that like warm temperatures, such as lizards and geckos. Insects such as ants are more abundant here than in rural areas; these are referred to as ectotherms.</li> <li>● <b>Heatwaves:</b> Affect human and animal health, leading to exhaustion, dehydration and increased mortality rate.</li> </ul> <p><b>How can urban heat islands be reduced?</b></p> <ul style="list-style-type: none"> <li>● By increasing the green cover: filling open spaces with trees and plants.</li> <li>● Appropriate choice of construction materials</li> <li>● Promoting terrace and kitchen gardens</li> </ul> <p>Painting white or light colours on terraces wherever possible to reflect heat.</p>
Mariupol	<ul style="list-style-type: none"> <li>● <b>Has become the most heavily bombed and damaged city in Ukraine's war with Russia</b></li> <li>● A city in Ukraine, on the north coast of the <b>Sea of Azov at the mouth of the Kalmius river</b></li> <li>● During the 2022 Russian invasion of Ukraine, the <b>city was besieged and severely damaged in which it received the title of Hero City of Ukraine</b></li> <li>● Taking the port city would be a <b>strategic win for Russia</b> - and a major blow for Ukraine</li> <li>● If Mariupol was seized, <b>Russia would also end up with full control of more than 80% of Ukraine's Black Sea coastline - cutting-off its maritime trade and further isolating it from the world.</b></li> </ul> <p>Mariupol is a <b>key export hub for Ukraine's steel, coal and corn</b> going to customers in the <b>Middle East and beyond.</b></p>
Sea of Azov	<ul style="list-style-type: none"> <li>● A sea in Eastern Europe connected to the Black Sea by the narrow (about 4 km or 2.5 mi) Strait of Kerch</li> <li>● Sometimes regarded as a northern extension of the Black Sea.</li> <li>● The sea is bounded by Russia on the southeast and by Ukraine on the northwest.</li> </ul>  <p>a.</p>

## Pangong Tso

**In News:** Ministry of External Affairs (MEA) stated that **two bridges built by China in Pangong area**, have continued to be under the **illegal occupation of China since the 1960s**

- It is more than 20 km east of the point which India says marks the Line of Actual Control (LAC).
- The bridge is located around 20 km east of Finger 8 on the north bank of the lake, which India says is the point that marks the LAC.
- The area has been under **Chinese control since 1958**, although it is just west of India's claim line, which, according to India, is its international boundary.
- It is just east of a ruin named Khurnak Fort, where China has major frontier defence bases. The region is called Rutong County by China.

**Background**

- Since the **military standoff began in May 2020**, India and China have not only worked to **improve existing infrastructure**, but have also built several new roads, bridges, landing strips along the entire frontier.




- Both countries agreed to a pullback from the north bank of the lake, and positions on the Kailash Range in the Chushul sub-sector south of Pangong Tso.
- The **first bridge** was constructed more than 20 km east of **Finger 8 on the lake's north bank** – India says **Finger 8 denotes the LAC**.
- The **Lake is overlooked by the Finger Area** - a set of eight cliffs extending out of the Sirijap range (on the northern bank of Lake).

**Pangong Tso**


- Pangong Lake is a long boomerang-shaped **endorheic water body**.
- It is located at an **elevation of roughly more than 4,200 meters (13,800 ft)** above sea level.
- It is a **transborder lake spanning across eastern Ladakh and western Tibet**, with a length of more than 135 km.
- It is around 5 km wide at its broadest point.
- Around **40% of the lake lies within Indian territory, 50% in Tibet (China), and the rest 10% is reportedly disputed** between the two and is a de facto buffer zone.
- Practically **China controls 2/3rd of the total length while the rest is controlled by India**.

**Eastern Part:**

- The easternmost part of the lake is **freshwater in character**.
- It is an important **breeding region for a number of migratory birds** during summers.

	<p><b>Western Part:</b></p> <ul style="list-style-type: none"> <li>The westernmost part of the lake is <b>extremely saline in character</b>.</li> <li><b>No fishes or flora are observed</b> in or near the lake, however, a few crustaceans can be seen in the water.</li> </ul> <p>The lake has over the past <b>shrunk in size due to geological factors</b>.</p> <p>a. The lake has many islands within it, <b>one of the most famous islands of Pangong Tso Lake is the Bird Isle</b></p>
Donbas and Luhansk	<p><b>In News:</b> Ukrainian President said the - Incessant bombardment has turned Ukraine's Donbas region into hell</p> <p><b>Donbas and Luhansk</b></p> <ul style="list-style-type: none"> <li>The Donbass region, <b>comprising the Donetsk and Luhansk oblasts of Ukraine</b>, has been at the centre of the conflict since March 2014 when Russia invaded and annexed the Crimean Peninsula.</li> </ul> 
Wanchuwa festival	<p><b>In News:</b> Tiwa tribesmen celebrated the <b>Wanchuwa festival</b> in Karbi Anglong district of Assam</p> <p><b>About Wanchuwa festival:</b></p> <ul style="list-style-type: none"> <li>The Wanchuwa festival is <b>one of the most important celebrations in the life of the Tiwa tribe of Assam</b>.</li> <li>With every harvest, it comes with <b>songs, dances, a bunch of rituals and people clad in their native attires</b>.</li> <li>With <b>bamboo sticks in hand</b>, the people proceed to <b>rhythmically beat the rice powder</b>, and occasionally pause to move around the circle.</li> </ul> <p><b>Tiwa Tribe</b></p> <ul style="list-style-type: none"> <li>Tiwa Tribe is a community that <b>centers itself around a traditional form of agriculture</b>.</li> </ul>



	<ul style="list-style-type: none"> <li>Also known as <b>Lalung</b>, this indigenous community is recognized as a <b>Scheduled Tribe (ST)</b> within the state of <b>Assam</b>.</li> <li>They are also found in <b>Meghalaya, Arunachal Pradesh and Manipur</b></li> </ul> <p>The Tiwas <b>practice Jhum or shifting cultivation</b>.</p>
<b>Katchatheevu Island</b>	<p><b>In News:</b> Recently, during Prime Minister's visit to Tamil Nadu, Tamil Nadu Chief Minister has asked for retrieval of Katchatheevu Island from Sri Lanka</p> <p><b>Katchatheevu Island</b></p> <ul style="list-style-type: none"> <li>It is an <b>uninhabited off-shore island in the Palk Strait</b> originally owned by a king of Ramnad (present-day Ramanathapuram, Tamil Nadu).</li> <li><b>The island is used by fishermen to dry their nets.</b></li> <li>During British rule, it <b>was administered jointly by India and Sri Lanka</b>.</li> <li>In the early 20th century, <b>Sri Lanka claimed territorial ownership over the islet, so in 1974 India ceded the island to Sri Lanka, through a joint agreement.</b></li> <li>Two years later through another accord, <b>India further gave up its fishing rights in the region</b></li> <li><b>Initially the 1974 border agreement did not affect fishing on either side of the border.</b></li> <li>In <b>1976, through an exchange of letters, both India and Sri Lanka agreed to stop fishing in each other's waters.</b></li> <li>In 1974 and 1976 treaties were signed between the two countries to demarcate the <b>International Maritime Boundary Line (IMBL)</b>.</li> <li>However, the <b>agreement could not stop the fishermen from fishing in these waters, as fishermen know no boundary.</b></li> </ul>  <ul style="list-style-type: none"> <li>Despite the signing of maritime boundary agreements, <b>fishermen communities of both the countries continued their fishing in the Palk Bay area peacefully until the Eelam war broke out in 1983.</b></li> <li>Nonetheless, <b>after the end of War in 2009, the Sri Lankan fishermen have been raising their objection to Indian fishermen fishing in their waters.</b></li> <li>The small islet of <b>Katchatheevu, hitherto used by the fishermen for sorting their catch and drying their nets, fell on the other side of the IMBL</b></li> </ul> <p>Fishermen often risk their lives and cross the IMBL rather than return empty-handed, but the Sri Lankan Navy is on alert, and have either arrested or destroyed fishing nets and vessels of those who have crossed the line.</p>
<b>Gold reserve</b>	<p><b>In News:</b> The <b>Bihar government has decided to accord permission for exploration of the "country's largest" gold reserve in Jamui district</b></p>

- As per a Geological Survey of India (GSI) survey, **around 222.88 million tonnes of gold reserve, including 37.6 tonnes of mineral-rich ore, are present in Jamui district.**
- GSI findings indicated the presence of gold in areas such as **Karmatia, Jhajha and Sono** in Jamui district

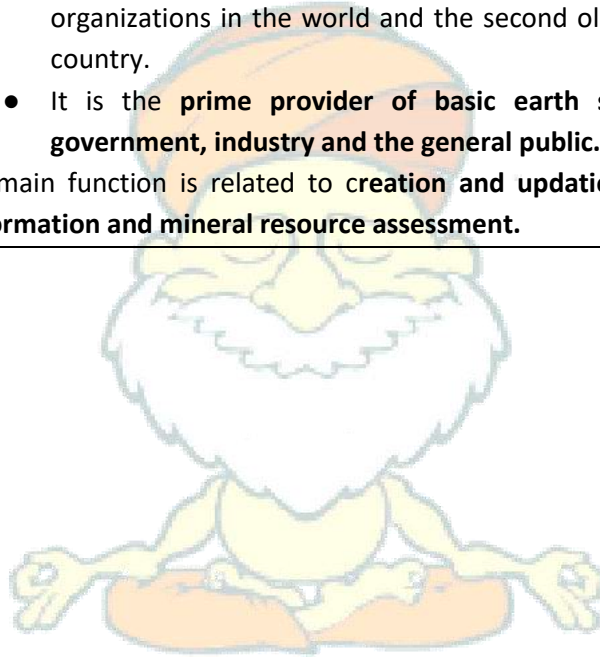
**Gold reserve in India**

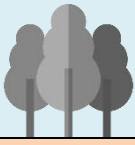
- The **largest reserves of gold ores are located in Bihar (44 per cent), followed by Rajasthan (25 percent), Karnataka (21 per cent), West Bengal (3 percent),** Andhra Pradesh (3 percent), Jharkhand (2 percent).
- The remaining 2 per cent reserves are in Chhattisgarh, Madhya Pradesh, Kerala, Maharashtra and Tamil Nadu.

**Geological Survey of India**

- The GSI is a **government organization in India, attached to the Ministry of Mines for conducting geological surveys and studies.**
- The **GSI was established in 1851** and is one of the oldest of such organizations in the world and the second oldest survey institution in the country.
- It is the **prime provider of basic earth science information to the government, industry and the general public.**

Its main function is related to **creation and updation of national geo-scientific information and mineral resource assessment.**





## ENVIRONMENT



### Pangolin

**In News:** A Pangolin was rescued from the Ranthambhore Tiger reserve

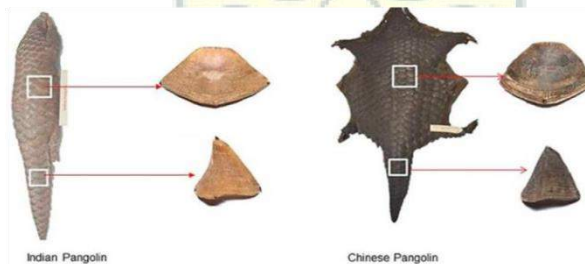
#### Pangolin

- Out of the eight species of pangolin, the **Indian Pangolin (Manis crassicaudata)** and the **Chinese Pangolin (Manis pentadactyla)** are found in India.
- Pangolins are **scaly anteater mammals** and they have **large, protective keratin scales covering their skin**.
- Insectivore- Pangolins are **nocturnal**, and their diet consists of mainly **ants and termites**
- Habitat - **Indian Pangolin** - It is widely distributed in India, except the arid region, high Himalayas and the North-East.

**Chinese Pangolin** - found in the Himalayan foothills in Eastern Nepal, Bhutan, Northern India, and North-East Bangladesh and through Southern China.

#### Difference between Indian and Chinese Pangolin

- Indian Pangolin is a large anteater covered by 11-13 rows of scales on the back.
- A terminal scale is also present on the lower side of the tail of the Indian Pangolin, which is absent in the Chinese Pangolin.



#### Status

- Wildlife Protection Act, 1972: Schedule I
- IUCN Red List: Indian Pangolin - Endangered; Chinese Pangolin - critically endangered

CITES: Appendix I

### Norms eased for genetically modified crop research

**In News:** The **Department of Biotechnology (DBT)** has issued **guidelines easing norms for research into genetically modified (GM) crops** and **circumventing challenges of using foreign genes to change crops profile**.

#### Guidelines for Safety Assessment of Genome Edited Plants, 2022

- It exempts researchers who use gene-editing technology to modify the genome of the plant from seeking approvals from the Genetic Engineering Appraisal Committee (GEAC)
- The final call however is taken by the Environment Minister as well as States where such plants could be cultivated.
- Guidelines is a **road map for the development and sustainable use of genome editing technologies in India**, specifying the biosafety and/or

	<p>environmental safety concerns, and describing the regulatory pathways to be adopted while undertaking the genome editing of plants.</p> <ul style="list-style-type: none"> <li>• The <b>guidelines say that all requirements that researchers must adhere to develop transgenic seeds will apply to gene-edited seeds except clauses that require permission from the GEAC.</b></li> </ul> <p><b>Opposition</b></p> <ul style="list-style-type: none"> <li>• Environmentalist groups have opposed this <b>exception for gene-edited crops arguing that gene editing is included in genetic engineering.</b> Therefore, there is no question of giving exemptions to particular kinds of genome edited plants from the regulatory purview</li> </ul> <p><b><u>Genetic Engineering Appraisal Committee (GEAC)</u></b></p> <ul style="list-style-type: none"> <li>• GEAC is a <b>statutory body</b> constituted under the 'Rules for the Manufacture, Use /Import /Export and Storage of Hazardous Microorganisms/Genetically Engineering Organisms or Cells, 1989' notified under the <b>Environment (Protection) Act, 1986.</b></li> <li>• It <b>functions under the Ministry of Environment, Forests &amp; Climate Change.</b></li> <li>• The body regulates the <b>use, manufacture, storage, import and export of hazardous microorganisms or genetically-engineered organisms and cells in India.</b></li> </ul> <p><b>GEAC Functions</b></p> <ul style="list-style-type: none"> <li>• <b>Appraisal of activities that involve the large scale use of hazardous microbes and recombinants</b> in research and industrial production from the point of view of the environment.</li> <li>• Assesses proposals <b>regarding the release of genetically engineered products and organisms into the environment</b>, and this includes experimental field trials as well.</li> <li>• Looks into proposals <b>regarding the use of living modified organism that comes in the risk category III</b> and above in the import/manufacture of recombinant pharma products, or where the end-product of the recombinant pharma product is a modified living organism.</li> <li>• The <b>Committee has the power to take punitive action against people/body under the Environment (Protection) Act.</b></li> </ul> <p><b><u>The approval of the GEAC is mandatory before genetically modified organisms and products derived from them can be used commercially.</u></b></p>
<b>Community Forest Rights</b>	<p><b>In News:</b> The Chhattisgarh government has become only the second state in the country (after Simlipal in Odisha) to recognize Community Forest Resource (CFR) rights of a village inside a national park (Kanger Ghati).</p> <p><b>Community forest resource area:</b></p> <ul style="list-style-type: none"> <li>• The common forest land that has been traditionally protected and conserved for sustainable use by a particular community.</li> <li>• The community uses it to access resources available within the traditional and customary boundary of the village; and for seasonal use of landscape in case of pastoralist communities.</li> <li>• Has a customary boundary with identifiable landmarks recognised by the community and its neighboring villages.</li> </ul>



- It may include forest of any category – revenue forest, classified & unclassified forest, deemed forest, DLC land, reserve forest, protected forest, sanctuary and national parks, etc.

**Community Forest Resource rights:**

*Provide for recognition of the right to “protect, regenerate or conserve or manage” the community forest resource.*

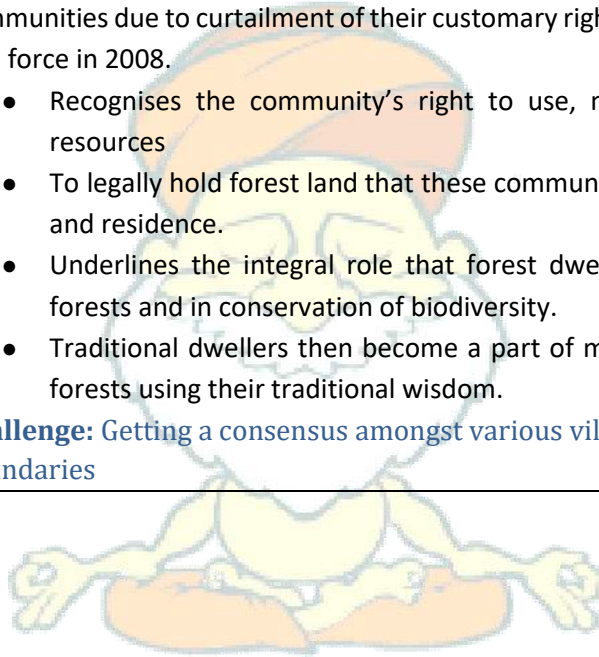
- Rights allow the community to formulate rules for forest use by itself and others and thereby discharge its responsibilities under Section 5 of the FRA.
- Include nistar rights and rights over non-timber forest products, ensure sustainable livelihoods of the community.
- Authority to the Gram Sabha to adopt local traditional practices of forest conservation and management within the community forest resource boundary.

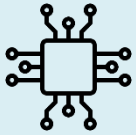
**Significance**

Aimed at undoing the “historic injustice” meted out to forest-dependent communities due to curtailment of their customary rights over forests, the FRA came into force in 2008.

- Recognises the community’s right to use, manage and conserve forest resources
- To legally hold forest land that these communities have used for cultivation and residence.
- Underlines the integral role that forest dwellers play in sustainability of forests and in conservation of biodiversity.
- Traditional dwellers then become a part of management of the protected forests using their traditional wisdom.

**Challenge:** Getting a consensus amongst various villages about their traditional boundaries





## SCIENCE & TECHNOLOGY



### Advanced Towed Artillery Gun System

**In News:** The **indigenous** Advanced Towed Artillery Gun System (ATAGS) successfully completed the validation trials towards meeting the specifications of the Army.

#### About Advanced Towed Artillery Gun System

- ATAGS artillery gun is jointly developed by Armament Research and Development Establishment (ARDE), the Pune-based laboratory of DRDO, in partnership with



**Bharat Forge and Tata Group.**

- The ATAGS is a **155mm, 52-calibre heavy artillery gun**
- The ATAGS has demonstrated a range of **over 45 km**
- It is most consistent and accurate gun in the world
- It is capable of the **shortest minimum range at high angle and fast mobility in desert and mountain terrain** in addition to **autonomous mode firing capability** and **wireless communication**

It has been **designed to fire all in-service ammunitions** with a fully automatic ammunition handling system with all electronic drives

### Monkeypox

**In News:** A case detected in United Kingdom

- Health authorities in the United Kingdom have confirmed a case of monkeypox, in an individual who recently travelled to that country from Nigeria

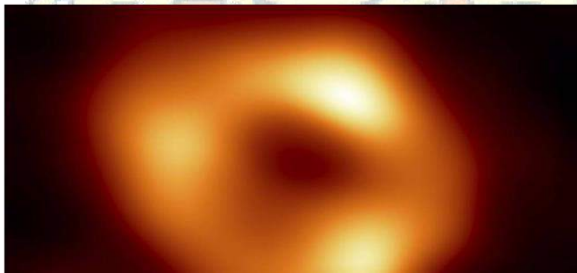
#### Monkeypox


- It is a **rare viral infection similar to smallpox**
- **Monkeypox is a zoonosis**, that is, a disease that is transmitted from infected animals to humans.

#### Monkeypox virus

- The **monkeypox virus is an orthopoxvirus**, which is a genus of viruses that also includes the variola virus, which causes smallpox, and vaccinia virus, which was used in the smallpox vaccine.
- **Monkeypox continues to occur in a swathe of countries in Central and West Africa**
- According to the World Health Organisation (WHO), **two distinct clade are identified:** the West



	<p>African clade and the Congo Basin clade, also known as the Central African clade</p> <p><b>Transmission</b></p> <ul style="list-style-type: none"> <li>• Monkeypox is a zoonosis</li> <li>• Monkeypox virus infection has been <b>detected in squirrels, Gambian poached rats, dormice, and some species of monkeys.</b></li> <li>• <b>Human-to-human transmission is limited</b></li> <li>• Transmission can be through contact with <b>bodily fluids, lesions on the skin or on internal mucosal surfaces</b>, such as in the mouth or throat, respiratory droplets and contaminated objects</li> </ul> <p><b>Symptoms</b></p> <ul style="list-style-type: none"> <li>• Monkeypox begins with a <b>fever, headache, muscle aches, back ache, and exhaustion.</b></li> <li>• It also <b>causes the lymph nodes to swell (lymphadenopathy)</b>, which smallpox does not.</li> </ul> <p><b>Treatment</b></p> <p>There is <b>no safe, proven treatment for monkeypox yet.</b> The WHO recommends <b>supportive treatment depending on the symptoms.</b></p>
<p><b>Black Hole</b></p>	<p><b>In News:</b> Scientists from the <b>Event Horizon Telescope (EHT) facility</b>, revealed <b>the first image of the black hole at the centre of the Milky Way.</b></p> <ul style="list-style-type: none"> <li>• <b>Astronomers believe nearly all galaxies</b>, including our own, <b>have these giant black holes at their centre</b></li> <li>• The <b>Milky Way black hole is called Sagittarius A*, near the border of Sagittarius and Scorpius constellations.</b></li> <li>• It is 4 million times more massive than our sun.</li> <li>• The image of Sagittarius A* (SgrA*) gave further support to the idea that the compact object at the centre of our galaxy is indeed a black hole, strengthening Einstein's general theory of relativity.</li> </ul>  <p><b>What is Black Hole?</b></p> <ul style="list-style-type: none"> <li>• Black hole refers to a <b>point in space where matter is so compressed as to create a gravity field from which even light cannot escape.</b></li> <li>• Light gets chaotically bent and twisted around by gravity as it gets sucked into the abyss along with superheated gas and dust.</li> <li>• Black-holes were <b>theorized by Albert Einstein in 1915.</b></li> <li>• A black hole <b>has two parts:</b></li> <li>★ <b>Singularity at its core</b>— a point that is infinitely dense, as all the remnant mass of the star is compressed into this point.</li> </ul>

	<p>★ Event Horizon - There is a region of space beyond the black hole called the event horizon. This is a "<b>point of no return</b>", beyond which it is impossible to escape the gravitational effects of the black hole.</p> <p><b>Event Horizon Telescope Project</b></p> <ul style="list-style-type: none"> <li>EHT is a group of <b>8 radio telescopes</b> located in different parts of the world. In 2006, an international team of more than 200 researchers, led by Harvard University astronomers, launched the Event Horizon Telescope (EHT) project with a sole aim: <b>to capture a direct shot of a black hole.</b></li> </ul>
<p><b>Advance Version of BrahMos</b></p>	<p><b>In News:</b> Two months after the <b>extended-range BrahMos</b> missile was tested from a naval ship, the missile was <b>air-launched from a Su-30 MKI aircraft</b></p>  <p><b>About BrahMos:</b></p> <ul style="list-style-type: none"> <li>BrahMos is an <b>indigenously manufactured supersonic cruise missile</b>, jointly developed with <b>Russia</b></li> <li><b>Name:</b> BrahMos is named on <b>rivers Brahmaputra and Moskova.</b></li> <li><b>Stages in Brahmos Missile:</b> It is a <b>two-stage</b> (solid propellant engine in the first stage and liquid ramjet in second) missile.</li> <li><b>Multiplatform Missile:</b> i.e. it can be launched from <b>land, air, and sea</b> and <b>multi capability</b> missile with pinpoint accuracy that works in both day and night irrespective of the weather conditions.</li> <li><b>Fire and Forgets Principle:</b> It operates on the "Fire and Forgets" principle i.e. <b>it does not require further guidance after launch.</b></li> <li><b>Range:</b> The range of BrahMos was earlier around 290 km, which, with the new version, <b>has reached around 350 km.</b></li> </ul> <p><b>Speed:</b> Brahmos is one of the fastest cruise missile currently operationally deployed with speed of <b>Mach 2.8, which is nearly 3 times more than the speed of sound.</b></p>
<p><b>Gaganyaan Mission</b></p>	<p><b>In News:</b> ISRO tests booster for Gaganyaan</p> <ul style="list-style-type: none"> <li>ISRO has <b>successfully carried out the static test of the HS200 solid rocket booster</b>, taking the space agency one more step closer to the keenly awaited Gaganyaan human spaceflight mission.</li> <li>The test was held at the <b>Satish Dhawan Space Centre, Sriharikota</b></li> <li><b>Designed and developed by the Vikram Sarabhai Space Centre (VSSC), HS200 booster is the 'human-rated' version of the S200 rocket boosters used on the geosynchronous satellite launch vehicle Mk-III (GSLV Mk-III), also called the LVM3.</b></li> <li>The <b>GSLV Mk-III rocket</b>, which will be used for the Gaganyaan mission, <b>will have two HS200 boosters that will supply the thrust for lift-off.</b></li> </ul>



- The HS200 is a 20-metre-long booster with a diameter of 3.2 metres and is **the world's second largest operational booster using solid propellants.**
- The successful completion of this test marks a **major milestone for the prestigious human space flight mission of ISRO**, the Gaganyaan, as the first stage of the launch vehicle is tested for its performance for the full duration
- **The control system used in the HS200 booster employs one of the world's most powerful electro-mechanical actuators** with multiple redundancy and safety features

#### Gaganyaan Mission

- Gaganyaan is a mission by the ISRO to send a **three-member crew to space** for a period of five to seven days



- **Launch Vehicle: ISRO's Geosynchronous Satellite Launch Vehicle GSLV Mk III**
- **Components: Consists of a service module and a crew module**, collectively known as an Orbital Module
- The Gaganyaan spacecraft will be placed in a **low earth orbit (LEO) of 300-400 kilometres.**
- **Vyom Mitra:** ISRO to send humanoid Vyommitra in unmanned Gaganyaan spacecraft ahead of human spaceflight

#### **Geosynchronous Satellite Launch Vehicle GSLV Mk III**

- GSLV MkIII, is a **three-stage heavy lift launch vehicle developed by ISRO.**
- The vehicle has **two solid strap-ons, a core liquid booster and a cryogenic upper stage.**

GSLV Mk III is designed to **carry 4 ton class of satellites into Geosynchronous Transfer Orbit (GTO) or about 10 tons to Low Earth Orbit (LEO)**, which is about twice the capability of the GSLV Mk II.

#### **mRNA Vaccine**

**In News:** The Centre for Cellular and Molecular Biology (CCMB) has established the "proof of principle" (proof of concept) of the first indigenous mRNA vaccine technology

- The **replication is based on the Moderna model**, but has been built with the information available in the open and our own technology and materials
- While vaccines work by training the immune system to identify disease-causing micro-organisms and eliminate them quickly when they encounter them, in the **mRNA technology, the host cell's immune system is trained to evade the real infection.**

	<ul style="list-style-type: none"> <li>• This is done by introducing mRNA of the microorganism of concern into the host.</li> <li>• The home-grown mRNA vaccine platform holds <b>promise to deal with other infectious diseases such as TB, dengue, malaria, chikungunya, rare genetic diseases and others.</b></li> </ul> <p><b>What are mRNA vaccines?</b></p> <ul style="list-style-type: none"> <li>• mRNA vaccines <b>trick the body into producing some of the viral proteins itself.</b></li> <li>• They work by using <b>mRNA, or messenger RNA</b>, which is <b>the molecule that essentially puts DNA instructions into action.</b></li> <li>• Inside a cell, <b>mRNA is used as a template to build a protein</b></li> </ul> <p><b>How does it works?</b></p> <ul style="list-style-type: none"> <li>• To produce an mRNA vaccine, scientists produce a <b>synthetic version of the mRNA that a virus uses to build its infectious proteins.</b></li> <li>• This <b>mRNA is delivered into the human body</b>, whose <b>cells read it as instructions to build that viral protein</b>, and therefore create some of the virus's molecules themselves.</li> <li>• These <b>proteins are solitary, so they do not assemble to form a virus.</b></li> <li>• The immune system then detects these viral proteins and starts to produce a defensive response to them.</li> </ul> <p><b>Centre for Cellular and Molecular Biology</b></p> <ul style="list-style-type: none"> <li>• The Centre for Cellular &amp; Molecular Biology (CCMB) is a <b>premier research organization</b> which conducts high quality basic research and training in frontier areas of <b>modern biology</b>, and <b>promotes centralized national facilities for new and modern techniques</b> in the interdisciplinary areas of biology.</li> <li>• It was set up initially as a <b>semi-autonomous Centre on April 1, 1977</b> with the <b>Biochemistry Division of the then Regional Research Laboratory, Hyderabad.</b></li> <li>• It is <b>located in Hyderabad</b> and operates <b>under the aegis of the Council of Scientific and Industrial Research (CSIR).</b></li> </ul> <p>It is designated as "<b>Center of Excellence</b>" by the Global Molecular and Cell Biology Network, UNESCO.</p>
<p><b>RNA Granules</b></p>	<p><b>In News:</b> In yeast cells, a <b>protein (sbp1) promotes disintegration of RNA granules</b>, the study found that the Sbp1 protein helps in <b>reducing the aggregates of human proteins involved in neurodegenerative disorders</b></p> <p><b>What is an RNA granule?</b></p> <ul style="list-style-type: none"> <li>• In the cytoplasm of any cell there is a <b>structures made of messenger RNA (mRNA) and proteins known as RNA granules</b></li> <li>• Unlike other structures in the cell (such as mitochondria), the <b>RNA granules are not covered and confined by a membrane</b></li> </ul>

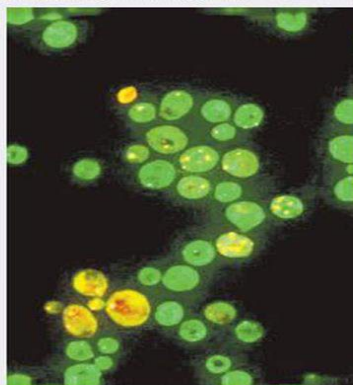
## A protein to dissolve aggregates in the neurons

Knowledge obtained from yeast is very often applicable to humans

■ Researchers at IISc Bangalore have identified a protein in yeast cells that dissolves RNA-protein complexes, also known as RNA granules

■ This finding is critical for many neurodegenerative disorders such as Amyotrophic Lateral Sclerosis (ALS) and Frontotemporal Dementia (FTD)

■ These neurodegenerative disorders are characterised by the accumulation of aggregates that resemble RNA granules. These aggregates are believed to contribute to the disease



**Naked:** Unlike other structures in the cell, the RNA granules are not covered and confined by a membrane.

■ In yeast cells, a protein (Sbp1) promotes the disintegration of RNA granules. The protein dissolves only the P-bodies

■ The study found that the Sbp1 protein helps in reducing the aggregates of human proteins involved in neurodegenerative disorders

■ The next step is to experimentally test the effect of repeat sequences in genetically engineered mice

■ This study once again suggests that knowledge obtained from yeast is very often applicable to humans


- This makes them **highly dynamic in nature**, thereby allowing them to constantly exchange components with the surrounding
- RNA granules are present in the cytoplasm at low numbers under normal conditions but increase in number and size under stressful conditions including diseases.
- A defining feature which does not change from one organism to another (conserved) of the **RNA granule protein components is the presence of stretches containing repeats of certain amino acids**
- Such stretches are referred to as **low complexity regions**. Repeats of arginine (R), glycine (G) and glycine (G) — known as RGG — are an example of low complexity sequence.

### Protein Synthesis

- Messenger RNAs are converted to proteins by the process of translation.
- **RNA granules determine messenger RNA (mRNA) fate** by deciding when and how much protein would be produced from mRNA.
- Protein synthesis is a **multi-step and energy expensive process**.
- Therefore, a common strategy used by cells when it encounters unfavorable conditions is to **shut down protein production and conserve energy to deal with the stressful situation**.
- **RNA granules help in the process of shutting down protein production.**
- Some RNA granule types (such as Processing bodies or P-bodies) not only regulate protein production but also accomplish degradation and elimination of the mRNAs, which in turn helps in reducing protein production.

### Treatment of disease

- In recent years, a **strong link has emerged between RNA granules and neurodegenerative disorders** such as Amyotrophic Lateral Sclerosis (ALS) and Frontotemporal Dementia (FTD).
- The proteins implicated in these diseases are RNA binding proteins that can reside in RNA granules.
- These proteins **also contain low complexity sequences (repeats of amino acids)** that are important for their movement into RNA granules.

	<ul style="list-style-type: none"> <li>In fact, these proteins are <b>deposited as insoluble granules in the neurons of ALS and FTD patients</b> which are believed to contribute to the <b>pathophysiology of these diseases</b>.</li> <li>Finding ways of <b>solubilising these aggregates could provide a breakthrough in treating these diseases</b>.</li> </ul> <p><b>Findings of the study</b></p> <ul style="list-style-type: none"> <li>A recent study has identified a <b>protein (Sbp1) as a factor that dissolves the RNA granules (P-bodies)</b></li> <li>The work also concluded that low complexity sequences which normally promote granule formation, in this case <b>promote the disintegration of RNA granules in yeast cells</b>.</li> <li>The identified <b>protein Sbp1 is specific for dissolving P-bodies and not stresses granules</b> which are related RNA granule type also present in the cytoplasm.</li> </ul> <p><b>This finding can be used to treat neurodegenerative disorders such as Amyotrophic Lateral Sclerosis (ALS) and Frontotemporal Dementia (FTD).</b></p>
<b>Pullulan polymer</b>	<p><b>In News:</b> Biomaterial from fungal extract helps heal wounds</p> <p><b>Pullulan polymer</b></p> <ul style="list-style-type: none"> <li>The <b>biomaterial is derived from the polymer pullulan</b> which is secreted by the <b>fungus Aureobasidium pullulans</b>.</li> <li>It is an <b>exopolysaccharide</b> - this polymer is secreted by the fungus itself into the medium on which it is growing.</li> <li>Pullulan as a biomaterial is already successful and widely used commercially.</li> <li>It is exploited in the food, cosmetics and pharmaceutical industry because of its non-toxic, non-mutagenic and non-immunogenic properties.</li> <li>In the <b>biomedicine sector, it has been used for drug and gene delivery</b></li> </ul> <p><b>Disinfecting the wounds and hastening the process of healing</b></p> <p>The gel produced using pullulan and quaternary ammonium groups can be used to disinfect wounds and fasten the healing process</p>
<b>Artificial Intelligence Chips</b>	<p><b>In News:</b> The <b>adoption of Artificial Intelligence (AI) chips has risen</b>, with chipmakers designing different types of these chips to power AI applications</p> <p><b>What are AI chips?</b></p> <ul style="list-style-type: none"> <li>AI chips are <b>built with specific architecture and have integrated AI acceleration to support deep learning-based applications</b>.</li> </ul>  <ul style="list-style-type: none"> <li>These chips, with their hardware architectures and complementary packaging, memory, storage and interconnect technologies, make it possible to infuse AI into a broad spectrum of applications to help turn data into information and then into knowledge</li> </ul>



	<ul style="list-style-type: none"> <li>There are <b>different types of AI chips</b> such as application-specific integrated circuits (ASICs), field-programmable gate arrays (FPGAs), central processing units (CPUs) and GPUs, designed for diverse AI applications.</li> </ul> <p><b>How are they different from traditional chips?</b></p> <ul style="list-style-type: none"> <li>When traditional chips perform computational tasks, <b>they continuously move commands and data between the two hardware components</b></li> <li>These chips, however, <b>are not ideal for AI applications as they would not be able to handle higher computational necessities of AI workloads</b> which have huge volumes of data.</li> <li>Although, some of the higher-end traditional chips may be able to process certain AI applications</li> <li><b>In comparison, AI chips generally contain processor cores as well as several AI optimised cores</b> that are designed to work in harmony when performing computational tasks.</li> <li>The AI cores are <b>optimized for the demands of heterogeneous enterprise-class</b></li> </ul> <p><b>What are their applications?</b></p> <ul style="list-style-type: none"> <li>Used in <b>multitude of smart machines and devices</b></li> <li>Some of these chips support <b>in-vehicle computers to run state-of-the-art AI applications more efficiently.</b></li> <li>AI chips are also <b>powering applications of computational imaging in wearable electronics, drones, and robots.</b></li> </ul> <p>The use of AI chips for NLP (Natural Language Processing) applications has increased due to the rise in demand for <b>chatbots and online channels such as Messenger, Slack, and others.</b></p>
<p><b>West Nile Virus</b></p>	<p><b>In News: The Kerala health department is on alert after the death of a 47-year-old from Thrissur due to the West Nile Virus.</b></p> <ul style="list-style-type: none"> <li>Earlier in 2019, a six-year-old boy in Malappuram district had died of the same infection.</li> <li>The virus was first reported in the state in Alappuzha in 2006 and then in Ernakulam in 2011.</li> </ul> <p><b>West Nile Virus</b></p> <ul style="list-style-type: none"> <li>The West Nile Virus is a <b>mosquito-borne, single-stranded RNA virus</b></li> <li><b>It is a member of the flavivirus genus and belongs to the Japanese encephalitis antigenic complex of the family Flaviviridae.</b></li> <li>WNV is commonly found in Africa, Europe, the Middle East, North America and West Asia</li> </ul> <p><b>Detection of WNV:</b></p> <ul style="list-style-type: none"> <li><b>WNV was first isolated in a woman in the West Nile district of Uganda in 1937.</b></li> <li><b>It was identified in birds in the Nile delta region in 1953.</b> Before 1997, WNV was not considered pathogenic for birds.</li> <li>WNV outbreak sites are found along major bird migratory routes.</li> <li>Human infections attributable to WNV have been reported in many countries for over 50 years.</li> </ul> <p><b>Transmission:</b></p>

- WNV is an infectious disease **spread by infected mosquitoes.**
- It spreads from birds to humans with the bite of an **infected Culex mosquito.** It can lead to a fatal neurological disease in humans.
- Mosquitoes become infected when they feed on infected birds, which circulate the virus in their blood for a few days. The virus eventually gets into the mosquito's salivary glands. During later blood meals, the virus may be injected into humans and animals, where it can multiply and possibly cause illness.
- WNV can also spread through **blood transfusion, from an infected mother to her child, or through exposure to the virus in laboratories.**
- To date, no human-to-human transmission of WNV through casual contact has been documented.

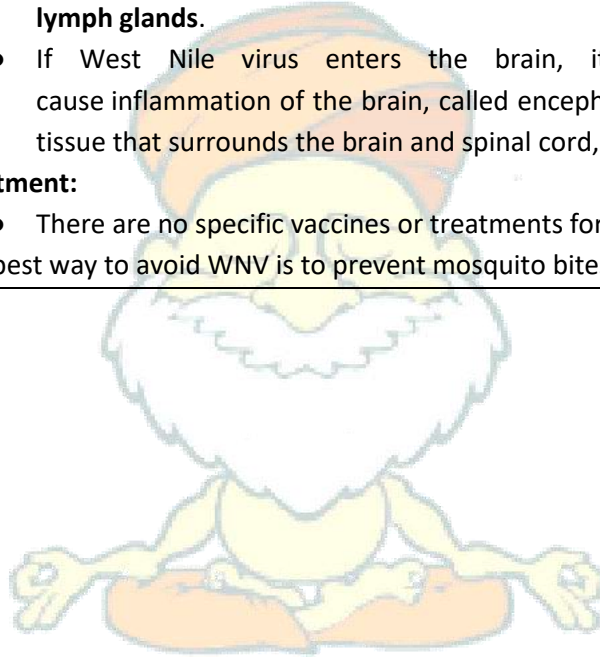
**Symptoms:**

- The disease is asymptomatic in **80% of the infected people**
- The symptoms include a **fever, headache, body aches, skin rash, and swollen lymph glands.**
- If West Nile virus enters the brain, it can be life-threatening, cause inflammation of the brain, called encephalitis, or inflammation of the tissue that surrounds the brain and spinal cord, called meningitis.

**Treatment:**

- There are no specific vaccines or treatments for human WNV disease.

The best way to avoid WNV is to prevent mosquito bites.





## MISCELLANEOUS



<p><b>World Press Freedom Index</b></p>	<p><b>In News:</b> The 20th World Press Freedom Index was <b>published by Reporters Without Borders (RSF)</b></p> <p><b>Key findings</b></p> <ul style="list-style-type: none"> <li>• The index reveals a <b>two-fold increase in polarization amplified by information chaos</b> – that is, <b>media polarization</b> fuelling divisions within countries, as well as <b>polarization between countries at the international level</b>.</li> <li>• Within democratic societies, <b>divisions are growing as a result of the spread of opinion media and the spread of disinformation circuits</b> that are amplified by the way social media functions</li> <li>• Polarisation is fuelling increased tension.</li> </ul> <p>The trio of <b>Nordic countries at the top of the Index</b> – <b>Norway(1st), Denmark and Sweden</b> – continues to serve as a democratic model where freedom of expression flourishes</p> <p>The world's <b>5 worst countries</b> for press freedom include Myanmar (176th), Turkmenistan (177th), Iran (178th), Eritrea (179th) and North Korea (180th).</p> <p><b>Performance of India</b></p> <ul style="list-style-type: none"> <li>• India has slipped <b>8 places on the World Press Freedom Index 2022</b></li> </ul> <p>With a <b>global score of 41</b>, India has gone down to the <b>150th position from 142</b> last year.</p>
<p><b>Thomas Cup</b></p>	<p><b>In News:</b> India lifts first-ever Thomas Cup after 3-0 wins over Indonesia</p> <p>An Indian men's team etched its name in the history books by <b>lifting the Thomas Cup (badminton competition) title for the first time with a dominant 3-0 win over 14-time champions Indonesia</b> in the final.</p> <p><b>Thomas Cup</b></p> <ul style="list-style-type: none"> <li>• The Thomas Cup, sometimes called the <b>World Men's Team Championships</b>, is an <b>international badminton competition</b> among teams representing member nations of the <b>Badminton World Federation (BWF)</b>, the sport's global governing body.</li> </ul> <p>The championships have been conducted <b>every two years since 1982</b>, amended from being conducted every three years since the first tournament held in 1948–1949.</p>
<p><b>World of work report</b></p>	<p><b>In News:</b> World of work - the ninth edition of the International Labour Organisation (ILO) Monitor was published</p> <p><b>Key findings</b></p> <ul style="list-style-type: none"> <li>• The report says that after significant gains during the last quarter of 2021, the <b>number of hours worked globally dropped in the first quarter of 2022, to 3.8% below the employment situation before the pandemic</b>.</li> <li>• <b>About 11.2 crore jobs might have been lost between this period, according to the report.</b></li> <li>• The report added that a <b>"great and growing divergence between richer and poorer economies"</b> continues to characterize the recovery.</li> </ul>

	<ul style="list-style-type: none"> <li>While high-income countries experienced a recovery in hours worked, low- and lower-middle-income economies suffered setbacks in the first quarter of the year with a 3.6 and 5.7 per cent gap respectively when compared to the pre-crisis benchmark</li> <li>The <b>fresh lockdowns in China, the conflict between Ukraine and Russia, and the global rise in the prices of food and fuel</b> are cited as the main reasons for the findings.</li> </ul> <p><b>Findings related to India</b></p> <ul style="list-style-type: none"> <li>The report said both <b>India and lower-middle-income</b> experienced a <b>deterioration of the gender gap in work hours in the second quarter of 2020</b></li> <li>It found that for <b>every 100 women at work prior to the pandemic, 12.3 women would have lost their job as an average through the entire period considered by the report.</b></li> <li>In contrast, <b>for every 100 men, the equivalent figure would have been 7.5.</b></li> </ul> <p>Hence, the pandemic seems to have exacerbated the already substantial gender imbalances in employment participation in the country</p>
<b>National Achievement Survey (NAS)</b>	<p><b>In News:</b> The <b>Ministry of Education</b> released its <b>National Achievement Survey (NAS) 2021 report</b></p> <ul style="list-style-type: none"> <li>The objective of NAS 2021 is to <b>evaluate children's progress and learning competencies</b> as an indicator of the efficiency of the education system, so as to <b>take appropriate steps for remedial actions at different levels</b></li> <li>The survey assesses the health of the school education system in the country through a survey of children's learning competencies at <b>Classes 3, 5, 8 and 10.</b></li> <li>The survey is conducted <b>every three years</b>, and the <b>last one was held in 2017.</b></li> <li>Nearly <b>34 lakh students</b> of 1.18 lakh schools in 720 districts from government, government-aided and private-unaided schools participated in the exercise.</li> <li>The <b>survey was conducted via an OMR</b> based achievement test comprising multiple-choice questions along with questionnaires in <b>22 different languages.</b></li> <li>This nationwide survey was <b>administered by the Central Board of Secondary Education.</b></li> </ul> <p><b>Key Findings</b></p> <ul style="list-style-type: none"> <li>A <b>DEEP learning crisis</b> has set in <b>during the Covid pandemic</b>; there is <b>fall of up to nine percentage points</b> between 2017 and 2021 in the performance of students in subjects ranging from math to social sciences</li> <li>The dip has happened <b>across subjects, and grades.</b></li> <li>It is also found that as many as <b>24 per cent of the students surveyed did not have access to digital devices at home, 38 per cent said they faced difficulty carrying out learning activities at home</b> during the pandemic, while <b>80 per cent said they learn better at school with the help of peers.</b></li> </ul>



- It found that out of a score of 500, students across various classes **performed better in languages but lagged behind in subjects like mathematics and science.**
- It also shows that across various subjects and classes, **SC, ST and OBC students performed worse than general category students.**

## PANDEMIC EFFECT

Performance levels have dipped across subjects and grades from 2017 to 2021

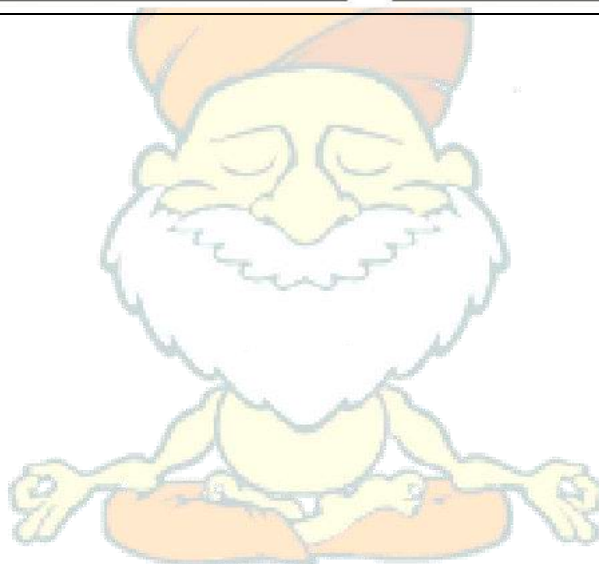
National average scores (in %)

### CLASS X (2021)

Maths	32
Science	35
Social Science	37
English	43
MIL*	41

\*Modern Indian language

	2017	2021
<b>CLASS III</b>		
Language	68	62
Maths	64	57
EVS	65	57
<b>CLASS V</b>		
Language	58	55
Maths	53	44
EVS	57	48





## Integrated Learning Program (ILP) – 2023



Your Road To Mussoorie...

Available in English & हिन्दी

Micro Planning -  
365 Day Plan

VAN (Daily Notes)

Daily Prelims &  
Mains Tests

Babapedia – One Stop  
Destination for Current  
Affairs (Prelims & Mains)

Progress Bar – To  
Track your Progress &  
Performance

Strategy Videos for  
every Subject

Detailed coverage  
of NCERTs &  
Standard Books

72 Prelims Tests &  
50 Mains Tests

Add-Ons : Current Affairs Videos | Mentorship



Dedicated App for the  
1st Time!

**REGISTER NOW**



## MAINS



## INDIAN POLITY &amp; GOVERNANCE



## Quasi federalism

- **Federal theorist K.C. Wheare** has argued that the nature of Indian Constitution is quasi-federal in nature.
- **The SC in Sat Pal v State of Punjab and Ors (1969)** held that the Constitution of India is more Quasi-federal than federal or unitary.

**What is Quasi-federalism?**

- Quasi-federalism means an **intermediate form of state between a unitary state and a federation**. It combines the features of a federal government and the features of a unitary government.

**Why India opted for Quasi Federalism/centralized federalism?**

- First was **the partition of India and the immediate concerns**.
- The second reason was the reconstitution of social relations in a highly hierarchical and discriminatory society towards forging a **national civic identity**
- The third reason concerns the objective of **building a welfare state and**
- The final reason was to **alleviate inter-regional economic inequality**.

To achieve the above mentioned objectives, **centralized federalism** was essential

**What are the Quasi-federal features of the Indian State?**

- **Article 3** - Destructible nature of states, unlike in other federations, the states in India have no right to territorial integrity. The parliament can change the area, boundaries, or name of any state.
- **Single Constitution**, it is applicable to both the Union as a whole and the States. In a true federation, there are separate constitutions for the union and the States.
- **In Rajya Sabha, the States do not have equal representation**. The populous States have more representatives in the Rajya Sabha than the less populous States.
- **The emergency provisions** are contained in Part XVIII of the Constitution of India, from **Articles 352 to 360**. In the emergency provisions, the central government becomes all-powerful and the states go into total control of the Centre.
- **All India Services** violate the principle of federalism under the constitution.
- **The governor** is appointed by the president. He also acts as an **agent of the Centre**. Through him, the **Centre exercises control over the states**.
- India has a **unified or integrated judicial system**. The High Courts which work in the States are under the Supreme Court of India.
- **Union veto over State Bills**: The governor has the authority to hold certain sorts of laws passed by the state legislature for presidential consideration.

**Advantages of Quasi Federal System**

- **National Integration** - With the various provisions like Article 356, separatist tendency can be tackled



- **Cooperation and Coordination:** A Quasi Federal structure allows the Centre to coordinate National level programmes. For instance, Center and State collaborated in their against pandemic
- **Resolving Inter State Conflicts:** A quasi federal structure allows the center to act as an arbiter in case of Inter State dispute. For example Border dispute and River Water dispute

### Challenges

- **Abuse of Power by Centre:** The federal provisions of the Constitution can only be amended with consent of the States. But the Center often violates this provision. **For instance, the recent Farm Laws.**
- **Misuse of Governor Office:** imposition of constitutional Emergency in a state, reserving bills for President assents etc
- **Other problems:** delayed disbursement of resources and tax proceeds, bias towards electorally unfavorable States, evasion of accountability, blurring spheres of authority, weakening institutions etc

### Way Forward

- **Reforms at the institutional and political level** can deepen the roots of federalism in India.
- **Democratic Decentralization of administration** and strengthening governments at all levels in true spirit.
- **Proper utilization of the institutional mechanism** of the **Inter-State Council** must be ensured to develop political goodwill between the Centre and the states

## Delhi-Centre Government dispute over control of services of NCT region

**In News: SC referred Delhi-Centre dispute over control of services to five-judge Constitution bench**

### Background

- The proceedings have their **genesis in the Delhi High Court judgment** of 2017, whereby it held that for the purposes of administration of the NCT of Delhi, the L-G was not bound by the aid and advice of the Council of Ministers in every matter.
- On appeal, the SC in 2017 referred the matter to decide on the **interpretation of Article 239AA.**
- By a majority decision in 2018, the Constitution bench **upheld the respective powers of the state Assembly and the Parliament.**
- It said that while the **council of ministers must communicate all decisions to the L-G**, this **does not mean that the latter's concurrence is required.** In case of a difference of opinion, the **L-G can refer it to the President for a decision.**
- **The L-G has no independent decision-making power but has to either act on the 'aid and advice' of the Council of Ministers** or is bound to implement the decision of the President on a reference being made

Thus the bench **limited itself to the interpretation of Article 239AA**, left individual issues to be decided by regular benches

- In 2019 two judge benches upheld two notifications issued by the Centre which had the effect of excluding the jurisdiction of the **Delhi government's Anti-Corruption Branch from probing offences committed by the central government officials and limiting it to employees of the Delhi government.**
- However, the judges, differed on who should have **control over administrative services**
- This was challenged again in the SC prompting it to refer the issue to larger constitutional bench



## Delhi-Centre Power Tussle

**Context:** The Supreme Court has started hearing the dispute between the Delhi government and the Centre over the control of administrative services in the national capital.

### How has the legal status of Delhi evolved ?

- In 1950, when the Constitution of India came into force, all the provinces of Chief Commissioners became Part C states. With the enactment of the Government of Part C States Act, 1951, the Legislative Assemblies in these states was empowered to make laws on all matters except, public order, police, and constitution.
- In **1952, the legislative assembly of Delhi** came into existence. The structure of this assembly was directly elected unicameral legislature with reservation of seats for scheduled castes
- With the passing of the **State Reorganisation Act, 1956**, the Indian states were limited to being "States and Union Territories", eliminating the previous system of system of Part A, B, C, and D States.
- While States were governed by a Council of Ministers appointed through elected representatives from the Legislative Assemblies; **Delhi, like other Union Territories had an "Administrator"** appointed by the President.
- **Delhi Administration Act, 1966** was especially enacted for to provide it with limited representative government through metropolitan Council, comprising of 56 elected members and five nominated members.

### What is the present status of Delhi?

- The Government of India appointed on 24-12-1987 a **Committee headed by Balakrishnan** to go into the various issues connected with the administration of Delhi and to recommend measures inter alia for the streamlining of the administrative set-up.
- After such detailed inquiry and examination, it Balakrishnan recommended that
  - o Delhi should continue to be a Union territory and **provided with a Legislative Assembly and a Council of Ministers** responsible to such Assembly with appropriate powers to deal with matters of concern to the common man.
  - o To ensure stability and permanence the arrangements should be **incorporated in the Constitution** to give the National Capital a special status among the Union territories.
- **Article 239 AA** was inserted in the Constitution by The **Constitution (69th Amendment) Act, 1991** to give Special Status to Delhi.
  - o With this, Delhi was constitutionally given the title of "National Capital Territory of Delhi" and would be administered by a Lieutenant Governor (LG) who was to be appointed by the President.
  - o It says that the NCT of Delhi will have Legislative Assembly.
  - o Legislative assembly has the power to make laws on state list and concurrent list **except on the subject of police, public order, and land.**
  - o Laws cleared by the Delhi assembly are routed to the President for his assent through the office of the L-G.
  - o Article **239AA(4)** provided a mechanism for referring the matter to the President in case of a difference of opinion between the Lt. Governor and the Council of Ministers.

- Currently, Delhi has a 70-member assembly whose members are elected by the residents of the city. Similarly, there are **civic agencies** which are independent of the city government. They include the three municipal corporations in the city in which leaders are elected through separate elections, a cantonment board and a municipal council that is in charge of the central area that houses the Parliament and Union government offices.
- There are two things that make Delhi distinct from a state.
  - o One, the excluded items under State list, i.e. item 1 (Public Order) ,2 (Police), and 18 (Land), on which the Delhi Legislative Assembly cannot make laws, are not restricted in states.
  - o Two, Parliament has concurrent legislative power over other items in the State list for the territory of Delhi as well.

#### How are capitals governed in other parts of the world?

- Washington DC has a municipal corporation whose powers are curtailed by the federal government, which can overturn local laws and even approves the local budget.
- Canberra (Australia's Capital) is run by an assembly which doubles up as a local executive but cannot make laws on subjects that include establishment of courts, police services and securities industry.

#### What was the 2018 Supreme Court Judgement?

- A five-judge Constitution Bench confined itself to the interpretation of Article 239AA, and left **individual issues** to be decided by regular Benches.
- In a judgment, the top court said that the **L-G is bound by the aid and advice of the elected government** in Delhi except for matters pertaining to land, police and public order.

Subsequently Supreme Court gave Judgements on Individual Cases:

- **Jurisdiction of the Anti-Corruption Branch (ACB) of the Delhi government to investigate officers of Central government to be under Lieutenant-governor**
  - o CBI is empowered to investigate the offenses of Central Government employees under the Prevention of Corruption Act.
- **Control of Services in National Capital is to be referred to larger bench.**

#### What is the way forward?

- Having a powerful local government in a national capital is not incompatible with national interest. It is a question of **political culture**.
- In Washington DC and Australian Capital Territory of Canberra, sub-national powers are indeed curtailed. But there are clear structures in place.
- What Delhi needs is **more clarity** (here comes the significance of Judiciary).
- Its chief minister is a visible leader. It comes down to whether the national government and political parties have **the maturity to be comfortable with federalism generally**, and with strong local leadership in the national capital, in particular.

## Minority Status in India

**In News:** Supreme Court expressed displeasure over the Centre changing its stand on a plea that sought minority status for Hindus where their numbers have gone below other communities

### What Happened?

- In the **earlier** (March) affidavit, the Centre had sought to shift the onus of granting minority status on states, stating **center and state have concurrent powers to do so**
- However, in a fresh affidavit it said **“the power is vested with the Centre to notify minorities”**

### Background

#### What is the case?

- The plea contended that **Hindus are in a ‘minority’ in six states and three Union Territories** of India but was allegedly not able to avail themselves of the benefits of schemes meant for minorities.
- Plea Showed as per **2011 census** Hindus have become a minority in **Lakshadweep (2.5%), Mizoram (2.75%), Nagaland (8.75%), Meghalaya (11.53%), J&K (28.44%), Arunachal Pradesh (29%), Manipur (31.39%), and Punjab (38.40%)**.
- They should **be given minority status** in these states in accordance with the principle laid down by the SC in its **2002 TMA Pai Foundation and 2005 Bal Patil Case** ruling.
- The petition also argued that **NCMEI (National Commission for Minority Education Institution) Act 2004 gives unbridled power to the Centre**
- Section 2(f) of NCMEI Act 2004 **confers power to the Centre to identify and notify minority communities in India**

#### TMA Pai Case:

- The SC had said that for the purposes of **Article 30** that deals with the rights of minorities to establish and administer educational institutions, religious and linguistic minorities have to be **considered state-wise**.

#### Bal Patil Case:

- In 2005, the SC in its judgment in ‘Bal Patil’ referred to the TMA Pai ruling.
- The legal position clarifies that henceforth the **unit for determining status of both linguistic and religious minorities would be ‘state’**.

#### How is a community notified as a minority?

- **Under Section 2(c) of the National Commission for Minorities Act of 1992** central government has the power to notify a community as a minority

#### Notified Minorities in India

- Currently, only those communities notified under section 2(c) of the NCM Act, 1992, by **the central government are regarded as minority**.
- In 1993, the **first Statutory National Commission** was set up and five religious communities viz. **The Muslims, Christians, Sikhs, Buddhists and Zoroastrians (Parsis) were notified as minority communities**.
- In 2014, **Jains were also notified as a minority community**.

#### National Commission for Minorities (NCM)

- In 1992, **with the enactment of the NCM Act, 1992**, the Minority Commission became a **statutory body and was renamed as the NCM**.
- NCM consists of a **Chairperson, a Vice-Chairperson and five members** and all of them shall be from amongst the minority communities.

## Fortified rice leading to side effects among Adivasis

**Context:** Distribution of iron fortified rice through government schemes as a “silver bullet” to curb anaemia must stop in States like Jharkhand, which have large tribal populations that suffer from sickle-cell anaemia, thalassemia, and tuberculosis, for whom an overload of iron can create adverse health issues, warn activists.

- Fortified rice is being distributed under Central government-funded schemes such as the public distribution system (PDS); PM-Poshan (erstwhile mid-day meal scheme) at schools; and Integrated Child Development Services (ICDS or anganwadi services).

### The Effects

Jharkhand is an endemic zone of sickle cell disorder and thalassemia, with a prevalence of 8%-10%, which is twice the national average. Jharkhand is also an endemic zone for malaria — in 2020, the State ranked third in the country in malaria deaths.

- Thalassemia, sickle cell anaemia and malaria are conditions where there is already excess iron in the body, whereas TB patients are unable to absorb iron.
- Consumption of iron-fortified foods among patients of these diseases can reduce immunity and the reduce functionality of organs.
- Within a household, it is unlikely that two different kinds of rice (fortified and unfortified) will be cooked for every meal for the contra-indicated cases and healthy persons.
- Distinct distribution in the PDS system as fortified and non-fortified rice to cater to individual needs and medical conditions is cumbersome.

### CENTRE'S TARGETS

#### 37.5 mt:

Fortified rice to be distributed till March 2024 to cover the entire Targeted Public Distribution Scheme and other welfare schemes



#### 17.5 mt:

Amount of fortified rice to be distributed by March 2023 in 292 aspirational districts, alongside ICDS and PM-POSHAN schemes

#### 3.5 mt:

Amount of fortified rice distributed in ICDS and PM-POSHAN in FY22

### The Way Ahead

Nutrition cannot be approached through a micronutrient-by-micronutrient formula and needs a holistic approach.

- Promoting diet diversity by adding millets, pulses and eggs to the PDS is recommended.
- Large scale fortification will lead to irreversible market shifts, with concomitant infrastructure changes in the supply chain.
- On the other hand, protein-rich diets, millets, healthy fats, traditional kinds of rice that are nutritionally superior, staple grains that are traditionally processed to preserve their nutrients, local (uncultivated) greens, diverse forest foods, and other materials can come from millions of kitchen gardens and other locally-led efforts, will all be neglected by such a policy.

### Fortified Rice



- **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. These nutrients may or may not have been originally present in the food before processing.

Source: [Hindustan Times](#)

## Section 153A and Section 295A of IPC

**In News:** Dr. Ratan Lal, a Dalit academician, was arrested for an 'objectionable' post on the Gyanvapi mosque row.

- He is alleged to have **promoted disharmony or enmity between religious groups (Section 153A in the Indian Penal Code) and intentionally and maliciously hurt religious sentiments (Section 295A in the IPC).**

**What do these sections say?**

**Section 153 A** deals with **promoting enmity between different groups on grounds of religion, race, place of birth, residence, language, etc.,** and doing acts prejudicial to maintenance of harmony.

- Under this section the person **shall be punished with imprisonment** which may extend to **five years and shall also be liable to fine.**
- **Section 295 A** deals with **deliberate and malicious acts, intended to outrage religious feelings of any class by insulting its religion or religious beliefs**
- The person can be **punished with an imprisonment of either description for a term which may extend to two years, or with fine, or with both.**

**Increased use of the two provisions**

- The latest annual report of the **National Crime Records Bureau records more than four jumps (458%) of cases registered under Section 153A since 2014;** it almost doubled in the last two years.
- And the **conviction rate is merely 20.4% of cases.**

**Why are such sections needed?**

- **India being a diverse country,** needs such laws to stop religious incendiary feelings at the bud
- Helps check **radicalism growth of communal divisions and domination of one community**
- Helps **propagation of secular values** by making religious extremism/insensitivity a punishable offense
- Punishes those involved in such activities and **acts as a deterrent for others.**

**Drawbacks**

- **Element of Subjectivity:** Leads to **misuse of the law as it has a large amount of subjectivity.** Unlike bodily harm that can be verified, **sentimental hurt cannot be tested against strict measures.**
- ❖ The **element of subjectivity overrides it as a sentiment's vulnerability** could widely vary
- **Encroaches on Freedom of Speech and Expression:** India's Constitution celebrates diversity with the **guarantee of free speech.**
- **Frivolous cases:** People have used this section to file frivolous cases for venting out personal vendetta
- **Overburdened Judiciary:** Already overburdened judiciary is put under **further strain due to resources it needs to direct towards frivolous cases** hindering efficacy of judicial system

**Way forward**

- To usher in **required amendments to clear the ambiguity and subjectivity** contained in sections
- **Stringent implementation of the safeguards available**
- Reduce the **propensities of sections getting misused**

## Police Reforms

**Context:** “Even today, the common perception is that one should stay away from police. It is a general notion that once a person wears the uniform, he controls everything”. PM Modi said these words while attending the first convocation of the Rashtriya Raksha University (RRU) in Gujarat as he stressed on need for Police reforms.

### What are the issues with Indian Police?

- **Colonial Framework:** India largely continues to follow the Police Act of 1861, framed by the British.
- **Feudal Mindset:** Most Police personnel think they are the masters of the society bearing the responsibility of disciplining the society and hence treat people as their patrons/ subjects.
- **Shortage of Financial Resources:** There is a shortage of resources available for utilization by police departments.
- **Overburdened:** Police work under incomprehensible pressure as they are understaffed. India had (in 2017) 131 police officers per 1,00,000 people; that is lower than the sanctioned number (181) and UN recommended number (222)
- **Slow filling of vacancies:** More than 5.3 lakh vacancies exist in police forces against the sanctioned strength of 26.23 lakhs, which is almost 20% shortfall. This has a direct bearing on the efficiency of the police.
- **Shortfall leading to inefficiency:** The increased stress levels due to shortages can sometimes lead to the police acting out their frustrations, at times on the people.
- **Poor Living Conditions:** Police infrastructure is perennially underfunded. Some police stations in the country lack even basic facilities such as drinking water, clean toilets, transport, telephones, staff, and funds for routine purchases which put extra pressure on them.
- **Prejudiced:** Many policemen, like the rest of Indians, carry prejudices—hidden and not-so-hidden—which make their performance uneven and unfair
- **Police Abuse:** There are complaints against the police including unwarranted arrests, unlawful searches, torture and custodial rapes
- **Not Citizen friendly:** Interactions with the police are generally considered frustrating, time-consuming and costly. A study by Centre for the Study of Developing Societies (CSDS) found that less than 25% of Indians trust the police highly (54% for the army).
- **Weak Investigations:** Well over 50% of cases filed by the police (nearly 80% in rape cases) end up in acquittals. One of the reasons is that Police often prioritize law & order over investigative matters
- **Slow Career Progression leading to corruption:** 86% of the police force are constables, who have no growth path other than a single promotion (to Head Constable) before they retire. This pushes them to adopt corrupt pathways thus reducing the credibility of Police
- **Inadequate Training:** The impact of poor training and slow modernization of police leads to non-collection of evidence in heinous crimes as per established procedures and hence low conviction rates.
- **Politicization of Police:** They are usually beholden to corrupt and venal superiors and are pressurized to work as per vested orders.
- **The gap between the highest court and the lowly police officer in India:** Despite criminal laws being struck down as unconstitutional, they continue to be enforced in various parts of the country by local police.

- **Lack of Uniformity across India:** Policing in India is a state subject which means there is significant variation across states.
- **Frequent Transfer** often leads to dilution of accountability of Police actions and inability to implement long-term reforms

### What were the attempts to reform Police?

India has long History of Attempted Police Reforms

National Police Commission (NPC)	1977-81	Established after the Emergency, the NPC produced 8 reports suggesting major reforms across a range of police issues.
Ribeiro Committee	1998	Established by the Supreme Court to review the lack of action taken to implement NPC recommendations and to re-frame a new police act
Padmanabhaiah Committee	2000	Dealt with the issues of politicization and criminalization of the police and police accountability
Malimath Committee	2002-03	Suggested changes to the Indian Penal Code and outlined ways of improving judicial proceedings
Review Committee headed by Shri R.S. Mooshahar	2004	Separate state-level PEB to decide on all transfers, postings, promotions and other service-related matters for police officers. At least three promotions should be given to the constables in their entire career. Giving importance to the role of police in the internal security of the states as well as the country Insulating the police machinery from extraneous influences.
Police Act Drafting Committee 1	2005	Drafted a new model Police Act to replace the 1861 Police Act.
<b>Supreme Court Directives In Prakash Singh Case</b>	2006	SC issued seven directives to state police forces including setting up State Security Commissions, Police Establishment Boards and a Police Complaints Authority
Second Administrative Reforms	2007	Noted that police-public relations were unsatisfactory and suggested a range of reforms to change this
Justice Thomas Committee	2010	Highlighted the total indifference of state governments to police reforms
Supreme Court Directives (On Centre's plea to modify 2006 verdict)	2018	New directives on police reforms and reviewed states progress in the implementation of the 2006 directives

**What is the SC's Prakash Singh judgment on police reforms?**

- Prakash Singh, who served as DGP of UP Police and Assam Police besides other postings, filed a PIL in the Supreme Court post retirement, in 1996, seeking police reforms. In 2006, the Supreme Court gave 7 directives with a view to bring in police reforms
- The Court put on record the deep rooted problems of politicization, lack of accountability mechanisms and systemic weaknesses that have resulted in poor all round performance and fomented present public dissatisfaction with policing.

**The directives are –**

1. **Setting up of State Security Commissions (SSC)** – lays broad policy guidelines, evaluated performance of state police & ensures state government does not exercise unwarranted pressure
2. Fixing the tenure (minimum of two years) and merit based transparent selection of the DGP
3. A minimum tenure for the Inspector General of Police
4. Separation of investigation and law and order functions
5. **Setting up of Police Establishment Boards**– to decide transfers, postings, promotions and other service related matters of police officers of and below the rank of DySP and make recommendation with the matters of police officers above rank of DySP.
6. **Creating a Police Complaints Authority**- to inquire into public complaints against police officers of and above the rank of DySP
7. **Forming a National Security Commission**– at the union level to prepare a panel for selection and placement of Chiefs of the Central Police Organisations (CPO) with a minimum tenure of two years.

**What should be the way forward?**

**The Model Police Act of 2006** was circulated to all the states but many of its fundamental principles that remain unfulfilled. There is a need for state to implement it in letter & spirit.

- **To increase the funding of Police** to better their infrastructure.
- **Sensitization of Police** when dealing with public especially during sensitive issues like rape and dowry
- **Modernisation of Police Forces** in the light of growing cyber crimes
- **Decriminalization of Politics:** These reforms are not implemented due to lack of political will, which in turn could be linked to the growing criminalization of politics.
- **Training:** We need to conduct regular training in human rights and social reintegration for police staff.
- **Filling up vacancies:** We need to fill vacancies in mission mode so that the burden on existing police officers is reduced.
- **Professional Rewards:** We need to create sufficient scope for upward mobility for police officers, so that good work can be rewarded with promotions.
- **The court's intention in Prakash Singh** directive was to bring this internal decision-making firmly to the police leadership. Continued non-compliance with this directive will only further undermine the authority of the police leadership, affect the morale of officers and blur accountability. Hence, there is a need to implement the directives in letter & spirit.



## Sedition Law (Section 124A of IPC)

**Context:** Recently, the Union government has sought more time to file a reply in plea challenging constitutional validity of the sedition Section 124A of the Indian Penal Code.

- The pleas filed by the Editors Guild of India and Major General (Retired) S.G. Vombatkere state that the law causes a 'chilling effect' on free speech and is an unreasonable restriction on free expression, a fundamental right.

### What is Sedition?

- Drafted by British historian-politician **Thomas Babington Macaulay** in 1837, sedition was defined as an act by 'whoever, by words, either spoken or written, or by signs, or by visible representation, or otherwise, **brings or attempts to bring into hatred** or contempt, or excites or attempts to **excite disaffection towards the Government**'.
- The Sedition charge was included in Section 124 A of the Indian penal code in **1870**
- Punishment as per section 124A
  - o Sedition is a non-bailable offence
  - o Imprisonment from three years up to life, along with a fine.
  - o The person charged under this law is also barred from a government job and their passport is seized by the government.

### What was the intention behind British introducing this law?

- It was imposed by the British Colonial government to primarily suppress the writings and speeches of prominent Indian freedom fighters.
- Writings of leaders like Mahatma Gandhi, Tilak, and JC Bose were suppressed and they were tried under sedition law for their comments on the British rule.
- The first notable case for the offence of sedition was reported in 1891, in the case of Queen-Empress vs. JC Bose & Ors., (1892).
  - o Here the editors of a Bengali magazine were charged for their criticism of the British Government's policies, specifically regarding the Age of Consent Act, 1891.
- **Sedition Charges against Bal Gangadhar Tilak**
  - o He was charged twice under the law once in 1897 and again in 1908.
  - o In 1897, Tilak had published the reports of annual celebration of the Shivaji Coronation as "Shivaji's Utterances" in his dailies – Kesari and Mahratta.
  - o This sedition trial is historically famous as in this case, an attempt to excite feelings of enmity against the government was also brought under the scope of Section 124A terming it is seditious. Hence, it widened the understanding of Section 124A.
  - o Tilak was sentenced to 18 months of rigorous imprisonment.
  - o In 1908, Tilak published two Kesari articles, titled "The Country's Misfortune" and "These Remedies Are Not Lasting". These were considered as seditious and Tilak sentenced to six years imprisonment from 1908 to 1914 at Mandalay (present-day Myanmar).
- **Sedition Trial of Mahatma Gandhi (1922)**
  - o Mahatma Gandhi was imprisoned for six years for his articles in his newspaper, 'Young India'.
  - o The charges imposed on him were – "Bringing or attempting to excite disaffection towards His Majesty's Government established by law in British India"
  - o Mahatma Gandhi termed Section 124A as "Prince among the political sections of the Indian Penal Code designed to suppress the liberty of the citizen."

**What has been the Sedition jurisprudence in independent India?**

- After Independence, “sedition” was dropped from the Constitution in 1948 after discussions of the Constituent Assembly. However, Section **124A continued to stay in the IPC.**
- In **Tara Singh Gopi Chand v. The State (1951)** case, the then-Punjab High Court, invalidated section 124A on the basis that it was in contravention of the fundamental right of freedom of speech and expression under Article 19 of the Indian constitution.
- Soon after, independent India’s first Parliament passed **the Constitution (First Amendment) Act, 1951** which, among other things, sought to resolve the anomaly in the constitutionality of the sedition law as a result of the Tara Singh Gopi Chand judgment.
- The Amendment Act introduced the new grounds for restricting the freedom of speech and expression which are - public order, relations with foreign states and incitement to an offence.
- Such wide-meaning terms gave greater discretion to the State invoke sedition.
- The conundrum arising from various views of the high courts was finally settled by the Supreme Court by its judgment in **Kedar Nath case in 1962,**
- In the new Code of Criminal Procedure, 1973, which came into force in 1974 and repealed the colonial-era 1898 Code of Criminal Procedure, sedition was made a cognisable offence authorising the police to make **arrests without a warrant.**

**What are the arguments in Support of Section 124A?**

- **To safeguard Integrity of Nation:** Section 124A of the IPC has its utility in combating anti-national, secessionist and terrorist elements.
- **Stability of the State:** It protects the elected government from attempts to overthrow the government with violence and illegal means.
- **Similar Powers with Judiciary:** If contempt of court invites penal action, contempt of government should also attract punishment.

**What was the Kedarnath Singh Case of 1962 and why is it considered as a landmark judgement?**

- In this matter, a **five-judge Constitutional bench** of the Supreme Court upheld the constitutional validity of section 124A.
- In this case, Kedar Nath Singh, who was a member of the Forward Communist Party of Bihar, was charged with sedition for making insulting speeches against the ruling Indian National Congress government.
- It **upheld the constitutionality of sedition**, but limited its application to “acts involving intention or tendency to create disorder, or disturbance of law and order, or incitement to violence”.

**Balwant Singh vs State of Punjab Case, 1995**

- The apex court held that unless there is public disorder merely sloganeering can’t attract punishment under Section 124A.

By two judgments in 2011, the Supreme Court unambiguously stated yet again that only speech that amounts to “incitement to imminent lawless action” can be criminalized.

**What are the concerns with Sedition provision?**

- **Misused to curb dissent:** Sedition has become the first refuge of a Government to still dissent. Dissent and criticism of the government are essential ingredients of robust public debate in a vibrant democracy.

- **Chilling effect on freedoms:** It is a constraint on the legitimate exercise of constitutionally guaranteed freedom of speech and expression.
- **Alternate sections already exist in the IPC.** Crimes covered under Section 124(A) are in any case mentioned in the Indian Penal Code under sections 141, 146, 152, 153, 153(A), 153(B) and 15
- **Low Convictions:** Charge sheets are hardly filed in such cases. Very few come to trial. Negligible number of cases ends in conviction (only 3%).
- **Vague & Liable to Political misuse:** The terms used under Section 124A like 'disaffection' are vague and subject to different interpretations to the whims and fancies of the investigating officers.
- **Disproportionate Impact on Weaker Sections:** Consistently, the targets usually include activists, Dalits, Muslims, tribals, and journalists.
- **Colonial Relic:** The British, who introduced sedition to oppress Indians, have themselves abolished the law in their country in 2009. There is no reason why India should not abolish this section.
- **International Image/Credibility:** Misuse of sedition and arbitrary slapping of charges are inconsistent with India's international commitments.

#### What is the way forward?

- The philosophy of dissent and democracy has also inspired our freedom movement and defines India's constitutional democracy, which is predicated on the people's right to call state power to account, albeit within the constitutional framework.
- The problem of misuse of the section can be rectified **by educating the law enforcement agencies** and a probable suggestion is **to impose penalties on the law enforcement officers** who maliciously invoke sedition charges.
- The government would do well to **review such outdated penal provisions**. Legislation exists to deal with unlawful activities and armed movements.

### Foreign Contribution Regulation Act (FCRA)

**Context:** Recently, a three-judge bench of the Supreme Court upheld the constitutional validity of the 2020 Amendment to the Foreign Contribution (Regulation) Act, 2010 [FCRA, 2010].

#### What is the FCRA?

- **Objective:** First enacted in 1976 FCRA regulates foreign donations and ensures that such contributions do not adversely affect internal security.
  - The Act ensures that the recipients of foreign contributions adhere to the stated purpose for which such contribution has been obtained.
  - It is implemented by Union Home Ministry.
- **Applicability:** The FCRA is applicable to all associations, groups and NGOs which intend to receive foreign donations. It is mandatory for all such NGOs to register themselves under the FCRA every five years.
- **Accountability:** Registered associations can receive foreign contribution for social, educational, religious, economic and cultural purposes. Filing of annual returns, on the lines of Income Tax, is compulsory.
- The act was subsequently **amended in 2010** that sought to consolidate the acceptance and utilisation of foreign contribution or foreign hospitality by individuals, associations or companies, and to prohibit such contributions from being used for activities detrimental to national interest.

- The FCRA was **amended in September 2020** to introduce some new restrictions. The Government says it did so because:
  - It found that many recipients were wanting in compliance with provisions relating to filing of annual returns and maintenance of accounts.
  - Many did not utilise the funds received for the intended objectives.
  - It claimed that the annual inflow as foreign contributions almost doubled between 2010 and 2019.

#### Who cannot receive foreign donations?

- Members of the legislature and political parties, government officials, judges and media persons are prohibited from receiving any foreign contribution.
- However, in 2017 the MHA, through the Finance Bill route, amended the FCRA law retrospectively paving the way for political parties to receive funds from the Indian subsidiary of a foreign company or a foreign company in which an Indian holds 50% or more shares.

#### How else can one receive foreign funding?

- The other way to receive foreign contributions is by applying for prior permission.
- It is granted for receipt of a specific amount from a specific donor for carrying out specific activities or projects.
- The association should be registered under statutes such as the Societies Registration Act, 1860, the Indian Trusts Act, 1882, or Section 25 of the Companies Act, 1956.
- A letter of commitment from the foreign donor specifying the amount and purpose is also required.

#### When is a registration suspended or cancelled?

- **Financial Irregularities of NGO:** The MHA on inspection of accounts and on receiving any adverse input against the functioning of an association can suspend the FCRA registration initially for 180 days.
- **Restriction on Functioning of NGO:** Until a decision is taken, the association cannot receive any fresh donation and cannot utilise more than 25% of the amount available in the designated bank account without permission of the MHA
- **Public Interest Violation:** The government can refuse permission if it believes that the donation to the NGO will adversely affect “public interest” or the “economic interest of the state”.
- **Recent Example:** In 2017, the MHA suspended the FCRA of the Public Health Foundation of India (PHFI), one of India’s largest public health advocacy groups, on grounds of using “foreign funds” to lobby with parliamentarians on tobacco control activities.
  - According to MHA data, since 2011, the registration of 20,664 associations was cancelled for violations.
  - As on September 11, 2020 there are 49,843 FCRA-registered associations.

#### What has been the criticism of FCRA?

- **Democratic Functioning:** NGOs perform vital role of interest aggregation and interest articulation in Democratic process. Disproportionately restricting their functioning will hamper Democracy in long run.
- **Affects Fundamental Rights:** The FCRA restrictions have serious consequences on both the rights to free speech and freedom of association under Articles 19(1)(a) and 19(1)(c) of the Constitution respectively.



- **Liable to misuse due to Vagueness in law:** The Act gave the government the power to frame rules whereby an organisation can be declared to have political objectives — without defining what a 'political objective' is.

#### What were the new restrictions introduced by Foreign Contribution (Regulation) Amendment Act, 2020?

- **FCRA account:** Foreign contribution must be received only in an account designated by the bank as FCRA account in such branches of the State Bank of India, New Delhi.
  - The recipients are allowed to open another FCRA bank account in any scheduled bank to which they could transfer the received funds for utilisation.
  - The designated bank will inform authorities about any foreign remittance with details about its source and the manner in which it was received.
- **Aadhaar for registration:** The Act makes Aadhaar number mandatory for all office bearers, directors or key functionaries of a person receiving foreign contribution, as an identification document.
- **Reduction in use of foreign contribution for administrative purposes:** Not more than 20% of the total foreign funds received could be used for administrative expenses. In FCRA 2010 the limit was 50%.
- **Prohibition to accept foreign contribution:** The Act bars public servants from receiving foreign contributions.
- **Transfer Restrictions:** The Act prohibits the transfer of foreign contribution to any other person not registered to accept foreign contributions
- **Surrender of certificate:** The Act allows the central government to permit a person to surrender their registration certificate.

#### What are the criticisms of the FCRA, 2020?

- **Financial Inconvenience:** Blanket requirement to open an account at the SBI Main Branch, New Delhi, is considered manifestly arbitrary serving no rational purpose, violating the right to equality. It is also inconvenient as the NGOs might be operating elsewhere.
- **Cripples NGO Functioning:** One of its consequences is that recipient NGOs cannot fund other organizations.
- **Double Standards:** On one hand the government invites foreign funds, but when such funds come for educational and charitable purposes, it is prevented.
- **License-Raj on NGOs:** The Bill assumes that all NGOs receiving foreign grants are guilty and thus makes Aadhaar of office bearers as mandatory requirement.
- **Open the doors for Bureaucratic Harassment**
- **Tool for Targeting:** The legislation may be used to target political opponents.

#### What are the government's arguments in introducing amendments in 2020?

- The Union of India argued that foreign contribution cannot be allowed **unless it is tightly regulated and controlled.**
- The Government has contended that the amendments were necessary to prevent foreign state and non-state actors from **interfering with the country's polity** and internal matters.
- The changes are also needed **to prevent malpractices** by NGOs and diversion of foreign funds.
- The provision of having one designated bank for receiving foreign funds is aimed at making it **easier to monitor the flow of funds.** Account opening can be done remotely.
- 20 per cent limit, so that **maximum benefit is reaped by the society at large** due to its utilisation for permissible activities of the NGO.

- Section 12A had been inserted requiring furnishing of Aadhaar card details in lieu of identification document. Centre has stated that the Supreme Court's judgment in K.S. Puttaswamy (2018) does not completely rule out the possibility of intrusion into the privacy of a person, which is **backed by a just law**.

### National Register of Citizens (NRC)

**Context:** The State Coordinator of National Register of Citizens (NRC), Assam has requested members of foreigner's tribunals across the state not to consider draft NRC and supplementary list as reliable evidence for disposal of cases under it.

#### What is the NRC and when did it start?

- NRC is an official record of the legal Indian citizens. NRC was born out of independent India's first census in 1951, entailing the transfer of data from the Census slips.
- It includes **demographic information** about all those individuals who qualify as citizens of India as per the Citizenship Act, 1955.
- All States were mandated to compile an NRC but it was **done only in Assam**.
- The first NRC was compiled in 1951, after the Census was completed that year. This NRC was prepared under a directive from the **Ministry of Home Affairs (MHA)**.
- The NRC list of Assam comprised those who lived in India on January 26, 1950, or were born in India or had parents who were born in India or had been living in India for at least five years before the January 26, 1950 cut-off.

#### Is there any legal basis for NRC?

- The Citizenship Act, 1955 provides for compulsory registration of every citizen of India and issuance of National Identity Card to him.
- The Citizenship Rules, 2003 framed under the Citizenship Act, 1955 prescribe the manner of preparation of the National Register of Citizens.

#### Why was there a demand for an update of the NRC in Assam?

- The fear of the indigenous people of being outnumbered by "illegal immigrants" during and after the **1971 Bangladesh War** led to the **Assam Agitation from 1979 to 1985**.
- The demand for updating the 1951 NRC so as to identify so-called "illegal immigrants and eject these foreigners from Assam was raised during the agitation."
  - In 1985, the anti-foreigners' agitation led by the All Assam Students' Union came to an end with the signing of the **Assam Accord**.
    - Under this accord, those who entered the state between 1966 and 1971 would be deleted from the electoral rolls and lose their voting rights for 10 years, after which their names would be restored to the rolls.
    - Those who entered on or after March 25, 1971, the eve of the Bangladesh War, would be declared foreigners and deported.
- Therefore, NRC for Assam now takes its definition of illegal immigrants from the Assam Accord – anyone who cannot prove that they or their ancestors entered the country before the midnight of March 24, 1971, would be declared a foreigner and face deportation. However, the exercise never materialized.

**Why is the NRC being updated now?**

- The mechanism for detecting so-called foreigners had previously been delineated by the Illegal Migrants (Determination by Tribunals) Act of 1983.
- The decision to start updating the National Register of Citizens was taken at a tripartite meeting attended by the Centre, the Assam government as well as the All Assam Students' Union in 2005.
- In **2013, the Supreme Court asked the Centre** to finalize the modalities to update the new National Register of Citizens for Assam.
- The project was launched in earnest from 2015, monitored directly by the SC.

**What happens to the people left out of the final list?**

- "Non-inclusion of a person's name in the NRC does not by itself amount to him/her being declared a foreigner," government has said.
- Government has also clarified that individuals would not be detained for failing to make it to the final list.
- Those that do not make it to the final list will have to **appear before the Foreigners' Tribunals of Assam**.
  - o These quasi-judicial bodies were originally set up under the Illegal Migrants (Determination by Tribunal) Act of 1983. The law has since been struck down by the court but the tribunals persist, tasked with determining whether individuals being tried are foreigners and should be deported.
  - o In anticipation of a fresh rush of cases after the final list, 1,000 more tribunals are being set up across the state.
- If one loses the case in the tribunal, the person can **move the high court and, then, the Supreme Court**.

**What is the present status of Assam NRC?**

- The government has not accepted the list as final and has decided to approach the Supreme Court for a "corrected" NRC.
- The government, however, has decided to push for unfreezing the biometrics of 21 lakh people, collected during the updating exercise, to enable them to get Aadhaar cards, which can be locked again if a person is eventually marked as a non-citizen.
- In 2021, Assam CM submitted an affidavit at the Guwahati High Court, referring to the August 2019 NRC as a "supplementary list" and not the "final NRC" and sought a re-verification.

**Is NRC related to the Citizenship Amendment Act (CAA)?**

- Protesters in Assam are of the view that CAA violates the Assam Accord, which states the cut-off date to be March 24, 1971. However, CAA sets the cut-off date as December 31, 2014.

**What is NPR?**

- National Population Register (NPR) is a register of usual residents of the country.
- It is mandatory for every **usual resident of India** to register in the NPR. It includes both Indian citizens as well as a foreign citizen.

- o According to the Citizenship (Registration of Citizens and issue of National Identity Cards) Rules, 2003, a usual resident is a person who has resided in a local area for the past 6 months or more or a person who intends to reside in that area for the next 6 months or more.
- The **first National Population Register was prepared in 2010** and updating this data was done during 2015 by conducting door to door survey.
- The next update of the NPR was planned to take place along with the House listing phase of the Census 2021.
  - o It is being prepared at the local (Village/sub-Town), sub-District, District, State and National level.
  - o The demographic and other particulars of each family and individual were to be updated/collected during the exercise of updating of NPR. No document is to be collected during this exercise.

**About Census:**

- The Census is the enumeration of the population of the country It is being conducted at an interval of 10 years.
- Census 2021 will be 16th census in the country since the first census happened in 1872
- For the first time, the Census 2021 will use the Mobile App for data collection. It will also provide a facility to the public for self-enumeration.

**Is NPR connected to NRC?**

- The Citizenship Act empowers the government to compulsorily register every citizen and maintain a National Register of Indian Citizens.
- A nationwide NRC — if undertaken — would flow out of NPR.
- This does not necessarily mean that an NRC must follow NPR — no such register was compiled after the previous NPR in 2010.
- After a list of residents is created, a nationwide NRC — if it happens — could go about verifying the citizens from that list.

## ASHA Workers

**Context:** The one million ASHA (Accredited Social Health Activist) workers, who are at the forefront of healthcare delivery in India, have received **the Global Health Leaders Award-2022** in the backdrop of the on-going 75th World Health Assembly.

**Who are ASHA (Accredited Social Health Activist) workers?**

- ASHA (which means hope in Hindi) workers are **volunteers** from within the community who are trained to provide information and aid people in accessing benefits of various healthcare schemes of the government.
- They act as a bridge connecting marginalised communities with facilities such as primary health centers, sub-centers and district hospitals.
- There are around 10.4 lakh ASHA workers across the country, with the largest workforces in states with high populations – Uttar Pradesh (1.63 lakh), Bihar (89,437), and Madhya Pradesh (77,531).



- Capacity building of ASHA is being seen as a continuous process. ASHA will have to undergo a series of training episodes to acquire the necessary knowledge, skills and confidence for performing her spelled out roles.

### What do ASHA workers do?

#### The details task assigned to ASHA workers under National Health Mission

- To **create awareness and provide information** to the community on determinants of health such as nutrition, basic sanitation & hygienic practices and health services.
- To **counsel women and families on birth preparedness** and to ensure that women undergo ante-natal check-up, maintain nutrition during pregnancy, deliver at a healthcare facility, and provide post-birth training on breast-feeding and complementary nutrition of children.
- To counsel women about contraceptives and sexually transmitted infections.
- To ensure and motivate those children in their community gets immunised.
- To work with the Village Health, Sanitation and Nutrition Committee to develop a **comprehensive village health plan**, and promote convergent action by the committee on social determinants of health. In support with VHSNC, ASHAs will assist and mobilize the community for action against gender based violence.
- To provide **community level curative care for minor ailments** such as diarrhoea, fevers, care for the normal and sick newborn, childhood illnesses and first aid.
  - o She will be a provider of Directly Observed Treatment Short-course (DOTS) under Revised National Tuberculosis Control Program.
  - o She will also act as a depot holder for essential health products appropriate to local community needs. A Drug Kit will be provided to each ASHA.
- To provide information about the births and deaths in her village and any unusual health problems/disease outbreaks in the community to the Sub-Centers/Primary Health Centre.
- She will promote construction of household toilets under Total Sanitation Campaign.

### What are the challenges faced by ASHA workers?

- **Work burden hardly makes it Voluntary in nature:** Their job description keeps expanding to include more tasks.
- **Grossly Underpaid:** They are paid incentives for different tasks undertaken by them with no fixed wage component. With no fixed and guaranteed salary their livelihood is always at risk.
- **No Provision of Safety Nets:** They do not get any benefits like pension or health insurance.
- **Debate over Status:** There is a strong argument to grant permanence to some of these positions with a reasonable compensation as sustaining motivation. · **Lack of Skill Ladder:** There is also a strong plea for skill and capacity development of Community Workers so that they move up the skill ladder in the formal primary health care system as an ANM/ GNM or a Public Health Nurse.

### What is the way forward?

- Given their contribution to human development recognition as permanent employees of government is an urgent requirement..
- The system can sustain and grow only if the **compensation is adequate**, and the ASHA continues to enjoy the confidence of the community.

- Expanding better opportunities with decent wages for front-line workers is not only necessary for acknowledging their rights as workers, but could also contribute to the **revival of the rural economy** by putting wages into the hands of many ASHA workers.

### Gyanvapi Mosque controversy & Places of Worship (Special Provisions) Act, 1991

**Context:** Recently, the Supreme Court has refused to put a stay on the videographic survey of the Maa Shringar Gauri Sthal at the **Kashi Vishwanath temple-Gyanvapi mosque complex**, ordered by a Varanasi civil court.

#### What is the brief history of the Gyanvapi Mosque controversy?

- Gyanvapi mosque, located next to the famous Kashi Vishwanath temple, was built in 1669 during the reign of **Mughal Emperor Aurangzeb**.
- The Kashi Vishwanath Temple-Gyanvapi Mosque dispute was raised during the campaign for the construction of Ram Mandir in Ayodhya along with the Krishna Janmabhoomi-Shahi Idgah Masjid in Mathura. It was claimed that all three **mosques were built after demolishing Hindu temples**.
- In 1991, the local priests filed a petition and moved the Varanasi court contesting the same.
- They demanded that the **mosque be removed and the land be given to the Hindus**. They also sought permission to worship in the Gyanvapi Masjid area.
- However, in 2019, when the **Supreme Court verdict in the Babri Masjid-Ram Janmabhoomi title dispute** of Ayodhya came, the Gyanvapi case was revived in December that year.
- The latest controversy is when five Hindu women file case in Varanasi court on April 2021 **regarding their right to worship** the idols of Shringar Gauri and other deities in the mosque premises on a daily basis.
- In April 2022, a Varanasi court **ordered a video survey of the Gyanvapi mosque complex** after the petition.

#### What do the Places of Worship Act, 1991 say?

- The legislation was enacted in light of the Ram Janmabhoomi rath yatra which had led to a lot of communal disharmony.
- The objective of the Act is to discourage communal disharmony.
- Section 3 explicitly puts a bar on the conversion of places of worship.
- Section 4(1) states that the religious character of a place of worship existing on August 15, 1947 shall continue to be the same as it existed on that day.
- Section 4(3) lists down **exceptions to the same**. Sub-clause (b) of the section states that the Act will not apply to appeals, suits and proceedings which were decided before the commencement of the Act.
- Section 5 stipulates that the Act shall **not apply to the Ramjanmabhoomi-Babri Masjid case**, and to any suit, appeal or proceeding relating to it.
- Section 6 penalises acts violative of section 3 with imprisonment of up to three, in addition to the payment of a fine.

### Indus Waters Treaty, 1960

**In News:** The 2 day meeting of the Indus Commissioners of India and Pakistan began in Delhi

#### History of the Indus Waters Treaty

- The **Indus river basin has six rivers – Indus, Jhelum, Chenab, Ravi, Beas and Sutlej**, originating from Tibet and flowing through the Himalayan ranges to enter Pakistan.

- In 1947, the line of partition, aside from delineating geographical boundaries for India and Pakistan, also cut the Indus river system into two.
- In 1951, in the backdrop of the water-sharing dispute, both the countries applied to the World Bank for funding of their respective irrigation projects on Indus and its tributaries, which is when the World Bank offered to mediate the conflict.
- Finally in 1960, the World Bank mediated agreement was reached between the two countries and the Indus Waters Treaty (IWT) was signed by former Prime Minister Jawaharlal Nehru and then President of Pakistan, Ayub Khan.

### Key Provisions of the treaty

#### Sharing Water

- It allocated the three western rivers—Indus, Chenab and Jhelum—to Pakistan for unrestricted use, barring certain non-consumptive, agricultural and domestic uses by India and the three Eastern rivers—Ravi, Beas and Sutlej—were allocated to India for unrestricted usage.

#### Permanent Indus Commission

- It also required both the countries to establish a Permanent Indus Commission constituted by permanent commissioners on both sides.

#### Rights over Rivers

- While Pakistan has rights over the waters of Jhelum, Chenab and Indus, Annexure C of the IWT allows India certain agricultural uses, while Annexure D allows it to build 'run of the river' hydropower projects, meaning projects not requiring live storage of water.



#### Objections:

- The treaty also allows Pakistan to raise objections over such projects being built by India, if it does not find them to be compliant with the specifications.
- India has to share information on the project design or alterations made to it with Pakistan, which is required to respond with objections, if any, within three months of receipt.
- Besides, India is allowed to have a minimum storage level on the western rivers – meaning it can store up to 3.75 MAF of water for conservation and flood storage purposes.

#### Dispute Resolution Mechanism:

- The IWT also provides a three step dispute resolution mechanism, under which “questions” on both sides can be resolved at the Permanent Commission, or can also be taken up at the inter-government level.

- In case of **unresolved questions or “differences”** between the countries on water-sharing, such as **technical differences**, either side can approach the World Bank to appoint a **Neutral Expert (NE)** to come to a decision.
- And eventually, if either party is **not satisfied with the NE’s decision** or in case of “disputes” in the interpretation and extent of the treaty, matters can be referred to a **Court of Arbitration**.

### Supreme Court recognizes prostitution as profession

**In News:** The apex court in its order stated that sex workers are entitled to dignity and equal protection under the law. A long-standing demand of sex workers that their work be decriminalized has been partially fulfilled with the Supreme Court.

**What was the case about?**

- In 2010, an appeal was filed in the SC against a 2007 order of the Calcutta High Court which upheld the life imprisonment imposed on a man named Budhadev Karmaskar, found guilty of murdering a sex worker in Kolkata’s red light area in September 1999.
- The court held that the Central and the State Governments should prepare schemes for rehabilitation for physically and sexually abused women commonly known as prostitutes through Social Welfare Boards.
- The Court had ruled in Budhadev Karmaskar (2011), that sex workers are also entitled to a “life of dignity” under Article 21 of the Constitution
- The SC also appointed a panel to make suitable suggestions on prevention of trafficking and rehabilitation of sex workers who wish to leave sex work.

**What did the panel say in its report?**

In its final report submitted in 2016, the panel noted that sex workers

- Found it difficult to acquire proofs of identity such as ration cards or voter cards because they lacked a proof of residence
- District authorities did not recognise the identities of sex workers and their children
- No access to schemes meant for their rehabilitation
- No access to credit offered by states, because the lack of documents prevented them from opening bank accounts
- The committee recommended that amendments should be made to The Immoral Traffic (Prevention) Act, 1956.

The Supreme Court order listed 10 recommendations of the panel, and directed that six of them should be implemented.

- provision for immediate medical assistance for any sex worker who is a victim of sexual assault
- direction to states to do a survey of all Protective Homes
- Sensitizing police and other law enforcement agencies to the rights of sex workers and to ensure that police treat them with dignity.
- ask the Press Council of India to issue appropriate guidelines for the media to take utmost care not to reveal the identities of sex workers
- measures that sex workers employ for their health and safety must neither be construed as offences nor seen as evidence of commission of an offence

**Laws around prostitution in India**



- As per the **Immoral Traffic (Prevention) Act, 1986**, sex workers can practice their profession but **activities, including pimping and running a brothel are considered a punishable offence.**
- It is **illegal to procure, induce, or abduct a person for prostitution.**
- The law further mentions that the **practice cannot take place within a 200-metre radius of any public place.**
- **Across Europe, countries such as Germany, Netherlands, France, Greece have legalised the profession.**

#### How significant is the court order?

- By holding that basic **protection of human decency and dignity extends to sex workers** and their children, the Court has struck a blow for the rights of an exploited, vulnerable section.
- It has asked **State governments to do a survey of protective homes** to review the cases of adult women detained there and process their release in a time-bound manner.
- The **Court's observations shall help sensitise the police, media and society toward sex workers.**



## INTERNATIONAL RELATIONS



### Indo-Pacific Economic Framework for Prosperity (IPEF)

#### In News: India and 12 countries led by US launched Indo-Pacific Economic Framework (IPEF)

- The framework aims to **strengthen economic partnership among participating countries to enhance resilience, sustainability, inclusiveness, economic growth, fairness, and competitiveness in the Indo-Pacific region.**
- Members: Australia, Brunei, Indonesia, India, Republic of Korea, Malaysia, New Zealand, Philippines, Singapore, Thailand, USA and Vietnam.
- A joint statement said that the **countries share a commitment to a free, open, fair, inclusive, interconnected, resilient, secure, and prosperous Indo-Pacific region** that has the potential to achieve sustainable and inclusive economic growth.
- The joint statement said that they are launching collective discussions toward future negotiations, and identified four pillars under the IPEF.
  1. Trade
  2. Supply Chains
  3. Clean Energy, Decarbonization, and Infrastructure
  4. Tax and Anti-Corruption

#### Indo-Pacific

- The Indo-Pacific is a geopolitical construct that has emerged as a substitute to the long-prevalent "Asia-Pacific", which represented the eastwards shift of global developments from Euro-Atlantic dimension
- It is an integrated theatre that combines the Indian Ocean and the Pacific Ocean, and the land masses that surround them.
- Also, the centre of gravity has shifted to Asia. The reason being maritime routes, the Indian Ocean and the Pacific provide the sea lanes.

## Solomon Islands and China Security Pact

**Context:** China and the Solomon Islands finalized a controversial security agreement, an early draft of which was leaked online in March 2022.

- This is the first deal of its kind for Beijing in the Pacific region.
- It has now become the centre of tussle between China and West for enhancing their own diplomatic presence in the region.

### Where are Solomon Islands located?

- Solomon Islands is a sovereign country consisting of six major islands and over 900 smaller islands in Oceania, with population of 7 lakh, to the east of Papua New Guinea and northwest of Vanuatu.
- It is located in the southwestern Pacific Ocean.
- It consists of a double chain of volcanic islands and coral atolls in Melanesia. Melanesia is a sub-region of Oceania in the southwestern Pacific Ocean.
- Its capital, Honiara, is located on the largest island, Guadalcanal.
- The island is a constitutional monarchy, with the British monarch, represented by a governor-general, serving as the formal head of state.
- Still, the country, a member of the Commonwealth, is independent, and the governor-general is appointed on the advice of the unicameral National Parliament.

### How has the political situation in Solomon Islands evolved over the years?

- The islands, which were initially controlled by the British Empire during the colonial era, went through the hands of Germany and Japan and then back to the U.K., after the Americans took over the islands from the Japanese during World War II.
- It was here, in the capital city of Honiara, that some of the fiercest battles of World War II were fought between the US and Japanese troops.
- The islands became independent in 1978 to become a constitutional monarchy under the British Crown, with a parliamentary system of government.
- Nevertheless, its inability to manage domestic ethnic conflicts led to **close security relations with Australia**, which is the traditional first responder to any crisis in the South Pacific.
- Between the late 1990s and early 2000s, the country was rife with ethnic unrest and military conflict between several armed groups, ultimately resulting in a coup that brought present Prime Minister Sogavare to power for the first time.
- With its **economy in a state of near-collapse and ethnic clashes** still rampant, the Pacific Nation was forced to call in reinforcements from Australia to stabilise state affairs.
- In 2003, a **multinational Regional Assistance Mission to the Solomon Islands (RAMSI)**, led by Australia, was established. As part of the mission, troops were deployed from Australia and New Zealand and a state of stability was eventually restored.
- Solomon islands and Australia also normalised a **bilateral security treaty in 2017**, which allows Australian troops to be deployed in the island nation in the event of an emergency.

### What has been the change in Solomon Islands' foreign policy stance in recent years?

- The government under PM Sogavare's started having close relationship with China in recent years
- Soon after he was elected prime minister once again in 2019, he cut the country's long-standing diplomatic relations with **Taiwan in favour of China**.

- This decision, widely known as **‘The Switch’**, is said to have been one of the first major indications of China’s expanding influence in the region, which was traditionally an ally of the US and Australia.
- PM Sogavare’s Switch decision was not popular — **several province leaders rejected** the switch, and it was also one factor contributing to the riots at capital Honiara in late 2021.

#### Why is China interested in the Solomon Islands?

- **Taiwan factor:** The Solomon Islands was one among the six Pacific island states which had official bilateral relations with Taiwan. However, in 2019, the Solomon Islands, along with Kiribati, switched allegiance to China.
- **Economic reasons**
  - o Solomon Islands, in particular, have significant reserves of timber and mineral resources, along with fisheries.
  - o Moreover, these states have disproportionately large maritime Exclusive Economic Zones when compared to their small sizes, the reason why these ‘small island states’ are seen also seen as ‘big ocean states’.
  - With the new security agreement, China and its army have a foothold in the island nation, which could be significant for blocking vital shipping lanes.
- **Strategic reasons – To Counter West**
  - o The small Pacific island states act as **potential vote banks for mobilising support** for the great powers in international fora like the United Nations.
  - o More importantly, the islands are **strategically located for China to insert itself** between America’s military bases in the Pacific islands and Australia.
  - o 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.
  - o The coming together of QUAD (USA, India, Japan and Australia) which is targeting the China by trying to encircle has also created fears among Chinese diplomatic establishment. Thus, China wants to counter these western moves by signing security arrangements with countries in the region.

#### What is in the Solomon Islands-China pact?

- The leaked document explicitly **enables China to send its “police, armed police, military personnel and other law enforcement and armed forces”** to the islands
  - o on the Solomon island government’s request, or
  - o If safety of its projects and personnel in the islands are at risk.
- It also provides for **China’s naval vessels** to utilise the islands for logistics support.

#### What is in it for Solomon Islands?

- Solomon Island government is diversifying of its security partnerships (reducing security dependence on Australia) as one of the reasons for signing this deal.

#### What does this mean for the established geopolitical configuration in the region?

- 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.
- China's deal with the Solomon Islands has added a security dimension to its fast-growing profile in the region.

#### How has the west reacted to this agreement?

- Australia in particular has been very critical of the new security pact. Australian PM claimed that the pact pointed towards "intense pressure" from China in the Pacific island nation.
- Australia is concerned about the lack of transparency with which this agreement has been developed, noting its potential to undermine stability in our region
- Australia, the US, New Zealand and Japan said they "shared concerns about the security framework and its serious risks to a free and open Indo-Pacific".
- Australia has **reacted with boosted finances**, and by extending its current security mission till 2023 when the islands will host the Pacific Games.
- The U.S. has responded by considering reopening its embassy in islands after a long 29-year gap. US has laid out in unusually blunt terms a plan to increase its influence in the **South Pacific nation** before China becomes "strongly embedded."
- New Zealand has shed its typical restraint about China and has criticised it for attempting to militarise the Pacific islands.

#### What are the other moves of China which shows its increasing role in world affairs?

1. China through its **Belt and Road initiative (BRI)** is trying to increase its presence across the globe more specifically in Asia and Indo-Pacific region.
2. China and Iran have signed a **25-year "strategic cooperation pact"** which includes "political economic and strategic components".

#### 3. Development of China-Russia Axis:

- o The growing closeness has been reflected in **military cooperation**. China in 2014 became the first foreign buyer of the S-400 missile defence system. Also, their joint exercises have also grown in scope.
- **Commercial ties** have also been growing. Two-way trade last year was up 35% to \$147 billion, driven largely by Chinese energy imports. China has been Russia's biggest trading partner for 12 consecutive years and accounts for close to **20% of Russia's total foreign trade** (Russia, on the other hand, accounts for 2% of China's trade).

### Finland: From Neutral to NATO

**Context:** Finland's Prime Minister had insisted that her country was unlikely to join NATO even as Russian troops amassed on the Ukrainian border in February.

- Three months and one invasion later, Finland is hurtling to join the alliance — a monumental shift for a nation with a long history of wartime neutrality and staying out of military alliances.
- Sweden, another neutral Nordic country, is also so alarmed by Russia's invasion of Ukraine that it is also now seriously considering joining NATO.



**What is NATO?**

- Nato - the North Atlantic Treaty Organization - is a **military alliance**. It was formed in 1949 by 12 countries, including the US, UK, Canada and France.
- Nato's original aim was to **counter Russian expansion** in Europe after the Second World War. NATO's essential and enduring purpose is to safeguard the freedom and security of all its members by political and military means.
- Following the **Soviet Union's collapse in 1991**, many of its former Eastern European allies joined Nato.
- Nato is based on **Collective defence principle** enshrined in "Article 5" of NATO's founding Treaty (Washington Treaty). This principle views an attack on one member as an attack on all.
  - NATO has only once invoked Article 5, on September 12, 2001 following the 9/11 attacks on the World Trade Center in the US.
- NATO has its headquarters in Brussels but is dominated by the massive military and nuclear missile power of the US.

**There are currently 30 members in NATO**

- Its original members were Belgium, Canada, Denmark, France, Iceland, Italy, Luxembourg, the Netherlands, Norway, Portugal, the United Kingdom, and the United States.
- Other members include: Greece and Turkey (1952), West Germany (1955, from 1990 as Germany), Spain (1982), Czech Republic, Hungary, and Poland (1999), Bulgaria, Estonia, Latvia, Lithuania, Romania, Slovakia, and Slovenia (2004), Albania and Croatia (2009), Montenegro (2017) and North Macedonia (2020).

**How does NATO Function?**

- NATO has an **integrated military command structure**.
- Most forces **remain under full national command** and control until member countries agree to undertake NATO-related tasks.
- All 30 allies have an equal say, the Alliance's decisions must be unanimous and consensual, and its members must respect the basic values that underpin the Alliance, namely democracy, individual liberty and the rule of law.
- NATO's protection does not extend to members' civil wars or internal coups.
- NATO is funded by its members. The U.S. contributes roughly three-fourths of NATO's budget.

**Was there a counter military alliance by Soviets?**

- In 1955, when the Cold War was gaining momentum, the Soviet Union signed up socialist republics of Central and Eastern Europe to the **Warsaw Pact (1955)**.
- The Pact, essentially a political-military alliance, was viewed as a direct strategic counterweight to NATO.
- It included Albania (which withdrew in 1968), Bulgaria, Czechoslovakia, East Germany, Hungary, Poland, and Romania.
- The Pact was **officially disbanded in early 1991** after the dissolution of the Soviet Union itself.

**What are the Alliances of NATO?**

NATO participates in three alliances that expand its influence beyond its 30 member countries.

**Euro-Atlantic Partnership Council (EAPC):**

- It is a 50-nation multilateral forum for dialogue and consultation on political and security-related issues among Allies and partner countries.

- It provides the overall political framework for NATO's cooperation with partner countries in the Euro-Atlantic area, and for the bilateral relationships developed between NATO and individual partner countries under the **Partnership for Peace (PfP) programme**.

#### Mediterranean Dialogue:

- It is a partnership forum that aims to contribute to security and stability in NATO's Mediterranean and North African neighbourhood, and promote good relations and understanding among participating countries and NATO Allies.
- Currently, the following non-NATO countries take part in the Dialogue: Algeria, Egypt, Israel, Jordan, Mauritania, Morocco and Tunisia.

#### Istanbul Cooperation Initiative (ICI)

- It is a partnership forum that aims to contribute to long-term global and regional security by offering non-NATO countries in the broader Middle East region the opportunity to cooperate with NATO.
- Bahrain, Kuwait, Qatar and the United Arab Emirates currently participate in the Initiative.

#### How does Russia view NATO?

- Russia, and more specifically President Vladimir Putin, does not see NATO as a defensive alliance. Quite the opposite. He views it as a threat to Russia's security. He has watched in dismay as NATO steadily expanded eastwards - closer to Moscow - after the disintegration of the Soviet Union in 1991.

#### Why isn't NATO sending troops to Ukraine in the wake of Russia's invasion into Ukraine?

- As Ukraine isn't a member, NATO isn't obliged to come to its defense.
- NATO countries fear that if their troops confront Russian forces, it could lead to an all-out conflict between Russia and the West.

#### Why Finland want to join NATO?

- For decades, Finland and Sweden have carefully nurtured their neutrality. Culturally, they are firmly in the western camp, but were been wary of antagonising their giant nuclear-armed neighbour, Russia.
- From a **purely military perspective**, the addition of Finland's and/or Sweden's substantial militaries would be a major boost to Nato's defensive power in the north of Europe, where it is massively outnumbered by Russia's forces.
- Being a member of NATO will give the nations a security guarantee under the alliance's "Article 5" on collective defence.
- Geographically**, the addition of Finland fills in a huge gap in Nato's defence, doubling the amount of its border with Russia.
- Security and stability in the Baltic Sea are now dramatically improved.

#### What the concerns raised with regard to Finland/Sweden joining NATO?

- Put simply, the risk here is that such a major expansion of Nato, right on Russia's doorstep, will enrage Russia so much that it **retaliates**. Putin has already threatened to take "military technical measures" in response this expansion.
- It is widely taken to be two things - a reinforcing of its own borders by moving troops and missiles closer to the West, and possibly a stepping up of cyber attacks on Scandinavia.

- This may prompt Moscow to deploy nuclear weapons in Kaliningrad, the Russian exclave between Poland and Lithuania.
- Staying neutral has served Finland and Sweden very well over the years. Giving up that neutrality is not to be taken lightly. There will also be an economic cost for Sweden's domestic arms industry if the country is obliged to buy Nato weapons instead of its own.



## ECONOMICS



### Highlights of National Family Health Survey – 5

**In News:** The national report of the NFHS-5 is released by the Union Health Ministry.

**Highlights of the report:**

**Total Fertility Rate:**

- The Total Fertility Rate (TFR) has further **declined from 2.2 to 2.0** at the national level between National Family Health Survey (NFHS) 4 and 5.
- There are **only five States — Bihar (2.98), Meghalaya (2.91), Uttar Pradesh (2.35), Jharkhand (2.26) Manipur (2.17)** — in India which are above replacement level of fertility of 2.1

**Institutional Births**

- Institutional births **increased from 79% to 89%** across India and in rural areas around **87% births being delivered in institutions and the same is 94% in urban areas.**

**Under Age Marriage**

- While the **national average of underage marriages has come down, the rate has increased in Punjab, West Bengal, Manipur, Tripura and Assam**
- **23.3% of women surveyed got married before attaining the legal age of 18 years**, down from 26.8% reported in NFHS-4. The **figure for underage marriage among men is 17.7% (NFHS-5) and 20.3% (NFHS-4)**
- **Tripura has seen the largest jump in marriages under the legal age of 18 years for women from 33.1% (NFHS-4, conducted 2015-1) to 40.1%, and from 16.2% to 20.4% among men.**

**Teenage pregnancies, the Survey reports, is down from 7.9% to 6.8%**

- According to NFHS-5, women who are employed are more likely to use modern contraception. The data says 66.3% women who are employed use a modern contraceptive method, compared with 53.4% women who are not employed.

**Immunization**

- More than **three-fourths (77%) children aged between 12 and 23 months were fully immunised**, compared with 62% in NFHS-4.

**Stunting**

- The **level of stunting among children less than five years has marginally declined from 38% to 36%** in the country since the last four years. Stunting is higher among children in rural areas (37%) than urban areas (30%) in 2019-21.

**Women Empowerment**

- **Decision Making:** The extent to which married women usually participate in three household decisions indicates that their participation in decision-making is high, ranging from 80% in Ladakh to 99% in Nagaland and Mizoram. **Rural (77%) and urban (81%) differences are found to be marginal.**

- **Financial Inclusion:** The prevalence of women having a bank or savings account has increased **from 53% to 79% in the last four years.**
- **Domestic violence** has come down marginally **from 31.2% in 2015-16 to 29.3% in 2019-21**

#### Obesity

- The prevalence of overweight or obesity has increased in most States/UTs.
- **At the national level, it increased from 21% to 24% among women and 19% to 23% among men.**
- More than a third of women in Kerala, Andaman and Nicobar Islands, Andhra Pradesh, Goa, Sikkim, Manipur, Delhi, Tamil Nadu, Puducherry, Punjab, Chandigarh and Lakshadweep (34-46 %) are overweight or obese.

#### Child Nutrition

- The survey has found that **89 per cent of children between the formative ages of 6-23 months do not receive a “minimum acceptable diet”**
- This is **only marginally better than the 90.4 per cent recorded in NFHS-4.**
- The proportion of children aged 6-23 months who received a minimum acceptable diet was **highest in Meghalaya (28.5 per cent) and the lowest in UP and Gujarat (5.9 per cent each).**
- Apart from Gujarat and UP, 5 **other states Assam (7.2 per cent), Rajasthan (8.3 per cent), Maharashtra (8.9 per cent), Andhra Pradesh (9 per cent), MP (9 per cent)** recorded a lower than national-level proportion (11 per cent) of children receiving adequate diet.
- Among the top-five states where the percentage of children from 6-23 months receiving adequate diet was highest, Meghalaya was followed by **Sikkim (23.8 per cent), Kerala (23.3 per cent), Ladakh (23.1 per cent) and Puducherry (22.9 per cent).**
- The minimum acceptable diet is a composite of **two main things: breastfeeding and its frequency up to two years, and dietary diversity.**

#### Age Pyramid of India

- India's population remains young, with more than **one-fourth aged less than 15 years and less than an eighth over 60**
- There has been only a slight dip in the young, **the under-15 population has declined by 2 percentage points, from 29% to 27%, while the over-60 population has increased by as many points, from 10% to 12%.**
- **Over half the population (52%) is below 30,** compared to 55.5% in NFHS-4
- The age pyramid shows India's population is young, which, NFHS-5 notes, is typical of developing countries with low life expectancy.

#### Households

- The average household size has **decreased slightly between 2015-16 and 2019-21 (from 4.6 persons to 4.4).**
- Just over **one-sixth of households (18%) have female heads,** up from 15% in NFHS-4.

#### National Family Health Survey (NFHS):

- The NFHS is a **large-scale, multi-round** survey conducted in a representative sample of households throughout India.

#### Conducted By:

- The **Ministry of Health and Family Welfare (MoHFW)** has designated the **International Institute for Population Sciences (IIPS) Mumbai,** as the nodal agency for providing coordination and technical guidance for the survey.
- IIPS collaborates with a number of Field Organizations (FO) for survey implementation



## Poverty

**In News:** A recent World Bank Report has shown that **extreme poverty in India more than halved between 2011 and 2019 – from 22.5 percent to 10.2 per cent.**

- The reduction was higher in rural areas, from 26.3 percent to 11.6 per cent.

### Reasons for reduction

**Identification of deprived households** on the basis of the Socio Economic and Caste Census (SECC) 2011 across welfare programmes was a game-changer in the efforts to ensure balanced development, socially as well as across regions.

### Participation of Women:

- **Coverage of women** under the Deendayal Antyodaya Yojana and Self Help Groups (SHG) increased from 2.5 crore in 2014 to over 8 crore in 2018
- This provided a **robust framework to connect with communities and created a social capital that helped every programme.**

### Financial Decentralization

- **Finance Commission transfers were made directly to gram panchayats** leading to the creation of basic infrastructure

### Credit Access

- The **social capital of SHGs ensured the availability of credit through banks, micro-finance institutions and MUDRA loans**

### Basic Needs

- Thrust on universal coverage for individual household latrines, LPG connections and pucca **houses improved standard of living**

### Co operative federalism

- The competition among states to improve basic needs helped in development
- Example: **NITI Aayog SDG index**

### Monitoring

- Through processes like **social and concurrent audits**, efforts were made to ensure that resources were fully utilized.

### Still Poverty persists in India

Pandemic and pandemic induced lockdown - loss of livelihood; Population Explosion; Low Agricultural Productivity; Inefficient Resource utilisation; Inflation; Social Factors - Caste system, communal violence etc and Climatic Factors - Extreme Weather events - disasters like cyclone, landslides etc

### Way forward

- **Realistic Assessment of the present situation of poverty** in the country in need of the hour
- **Improving social infrastructure and job opportunities** in rural areas
- **Investment in Agriculture** by the government is necessary to decrease rural poverty
- **Access to credit, financial inclusion and DBT**
- **Adoption of ICT to fight corruption**
- **Involvement of citizen** in developmental plans, **adoption of bottom-up** approach etc

A lot has been achieved, much remains to be done. Strong political will and proper implementation of existing schemes is the need of the hour.

## Power shortage crisis

**In News:** In reaction to the ongoing power shortage crisis, the Ministry of Environment, Forest and Climate Change has **eased environmental norms for coal mining**.

Coal accounts for nearly 75 per cent of India's power generation and power plants account for over three-fourths of the over one billion tonnes of annual coal consumption.

### Current Situation

India's electricity demand jumped 15% in April 2022 compared to the same month in 2021.

- **A bounce-back in demand**-With office spaces, factories resuming in full force as Covid cases remain low, demand for electricity has spiked.
- **The early onset of summer** exacerbated by record-breaking heat waves across northern India
- **Russia's war in Ukraine** disrupted trade flows and crippled supply amid additional demand from Europe.
- **Record high prices of imported coal:** Plants designed to operate on imported low-ash coal are suffering due to the record high prices of imported coal.
- **Extremely low utilisation** of a total of 17GW of such plants has been another obstacle to meeting the high demand.
- **Shortage of trains to transport coal** is exacerbating a fuel supply crisis
- **Lack of coordination between the Ministries** – Coal, Railways and Power
- **Delayed payments and mounting debts** in the power sector

The supply-demand mismatch has caused blockouts all across India. The current crisis has more to do with the shortage of coal stockpiles at coal-based power plants and coal transportation logistics than volumes of coal mined.

### India's Coal Production

- India's domestic coal production grew by 8.5% to 777 million tonnes (mt) in FY22 from 716 mt in FY21.
- Coal production in April 2022 was 29% higher compared to the same month last year
- But the coal dispatch volumes only increased by 9%. Even then, plants have failed to maintain the necessary coal stockpiles.

### Is it the correct move?

- Exempting coal-mine expansions from proper environmental and social impact assessment is **not a long-term solution** for power-supply security.
- Could have severe social and economic impacts on indigenous communities living near the coal mines as well as the flora and fauna surrounding the mines.

### The Way Forward

The current crisis presents an opportunity to accelerate the commissioning of clean energy capacity.

- Policies to increase the uptake of distributed and rooftop solar PV, which could be built faster without putting pressure on transmission networks, will provide better outcomes.
- Small and medium industries (SMEs), educational institutes, banks, hospitals and residential communities will benefit from reducing their dependence on the grid and by producing their own electricity and selling some back to the grid.
- There is a strong case for the government to give a further push to distributed solar to protect India's economic activities from frequent power outages.

**Source:** [Financial Express](#)



## ENVIRONMENT



### Air Pollution in India

**In News:** Air pollution was responsible for 16.7 lakh deaths in India in 2019, or 17.8% of all deaths in the country that year. This is the largest number of air-pollution-related deaths of any country

- Globally, air pollution alone contributes to 66.7 lakh deaths.
- Overall, pollution was responsible for an estimated 90 lakh deaths in 2019 (equivalent to one in six deaths worldwide), a number that has remained unchanged since the 2015 analysis.
- Ambient air pollution was responsible for 45 lakh deaths, and hazardous chemical pollutants for 17 lakh, with 9 lakh deaths attributable to lead pollution.

#### Pollution in India

Out of the majority of the air pollution-related deaths in India

- 9.8 lakh were caused by PM2.5 pollution
- 6.1 lakh by household air pollution. Burning of biomass in households was the single largest cause of air pollution deaths in India, followed by coal combustion and crop burning.

#### Major Issues:

**Lack of a strong centralised administrative system to drive its air pollution control efforts:**

- The number of deaths remains high despite India's considerable efforts against household air pollution, including through the Pradhan Mantri Ujjwala Yojana programme.
- India has developed a National Clean Air Programme, and in 2019 launched a Commission for Air Quality Management in the National Capital Region.

#### The Way Forward

- Need for a **radical shift in the approach** to pollution management efforts: Towards a green recovery model that is less emissions-intensive
- **Governance:** Along with political will and the ability to reduce corruption at the planning in monitoring level, air pollution control of Indian cities has to be tackled at the city governance level – not at the central level.
- Need **integrated surveillance platforms** for health and exposure surveillance: Population exposure surveillance via biological and environmental monitoring can inform risk attributions within health programmes already in place to reduce the burden of maternal and child health as well as non-communicable diseases.
- **Capacity Building:** Public and media discussions are needed for the longer-term adverse health effects of chronically high pollution levels throughout the year. More awareness needs to be created

among policymakers and the general public about the slow but substantial impact of ambient particulate matter and household air pollution.

- **A viable public transport system strategy:** While the Metro has provided massive relief to Delhi's commuters, it is not viable for all economic classes. Therefore, [Delhi](#) needs an active bus service that runs on electricity. Regardless of the high initial cost, such vehicles offer other advantages like low maintenance cost, longer service life and lower operational costs per kilometre. More importantly, they reduce pollution levels.

- **Electric mobility** is a definitive way towards cleaner air, without compromising functionality. A shift to electric mobility is long-overdue.

**Report referred to in the article:** Report on pollution and health published in *The Lancet Planetary Health*

**Source:** [Indian Express](#)

### Focusing on Public Health Engineering

**Context:** Globally, around 80% of wastewater flows back into the ecosystem without being treated or reused, according to the United Nations. This can pose a significant environmental and health threat.

- In the absence of cost-effective, sustainable, disruptive water management solutions, about 70% of sewage is discharged untreated into India's water bodies.
- A staggering 21% of diseases are caused by contaminated water in India, according to the World Bank
- One in five children die before their fifth birthday because of poor sanitation and hygiene conditions, according to Startup India.

As we confront these public health challenges emerging out of environmental concerns, **expanding the scope of public health/environmental engineering science** becomes pivotal.

#### Expanding the cadre

**Objective:** For India to achieve its sustainable development goals of clean water and sanitation and to address the growing demands for water consumption and preservation of both surface water bodies and groundwater resources, it is essential to find and implement innovative ways of treating wastewater.

**To achieve the objective:** The specialised cadre of public health engineers, also known as sanitation engineers or environmental engineers, is best suited to provide the growing urban and rural water supply and to manage solid waste and wastewater.

- **Combine engineering and public health fields together:** Together, these fields can offer a wide range of opportunities for
  - o The development of advanced wastewater treatment systems
  - o Understanding complex quality and monitoring processes
  - o Designing and managing septic tank systems



- o Supplying good quality water in adequate quantities
- o Maintaining hygiene and access to water
- o Ensuring that water supply is sustainable, including the study of relevant industry standards and codes of practices.

· **Courses to develop skills of Civil Engineers and Public Health professionals:** Most often, civil engineers do not have adequate skills to address public health problems. And public health professionals do not have adequate engineering skills. The goal of reaching every rural household with functional tap water can be achieved in a sustainable and resilient manner only if the cadre of public health engineers is expanded and strengthened.

#### Following international trends – The Way Forward

*In India, public health engineering is executed by the Public Works Department or by health officials. This differs from international trends. To manage a wastewater treatment plant in Europe, for example, a candidate must specialise in wastewater engineering.*

**Need to introduce public health engineering as a two-year structured master's degree programme or through diploma programmes for professionals working in this field must be considered to meet the need of increased human resource in this field.**

#### Conclusion

- There is no doubt that the majority of diseases are water-related, transmitted through consumption of contaminated water, vectors breeding in stagnated water, or lack of adequate quantity of good quality water for proper personal hygiene.
- Diseases cannot be contained unless we provide good quality and adequate quantity of water. Most of the world's diseases can be prevented by considering this.
- Training our young minds towards creating sustainable water management systems would be the first step.

Source: [The Hindu](#)

### Stubble Burning

**Context:** With a large number of farmers continuing to set their fields on fire, nearly 1000 wheat straw burning cases were recorded in one day taking the total figure to well over 3000 in month of April 2022.

#### What is Stubble?

- Stubble is called the remaining part of paddy, which has its roots in the earth.
- After harvesting the paddy crop, the farmers cut off its valuable upper part, and the remaining is left in the field, which is not of any use to the farmer.

#### What is stubble burning?

- Stubble burning is the act of intentionally setting fire to crop residue (stubble) to remove them from the field so as to prepare the field for the next crop.
- Leaving stubble on the field will invite termites and other pests which can damage the subsequent crop.
- It is usually required in areas that use the combined harvesting method which leaves crop residue behind.

#### What time of the year do we witness stubble burning?

- Stubble burning has been practiced by farmers from all over the world but in India it is practised mainly in the Indo-Gangetic plains of Punjab, Haryana, and UP.
- The paddy crop is harvested between the first and last weeks of October in Punjab and Haryana. Then, farmers sow the wheat crop from the first week of November until the middle of December.
- Therefore, we witness **stubble burning during October** after harvesting of Khariff crops (paddy) so as to prepare the fields for upcoming rabi crop(wheat).
- Similarly, after harvesting rabi wheat crop in first week of April, stubble burning takes place usually in the months of **April- May** so as to prepare the fields for upcoming khariff crop (paddy).

#### What are the reasons for farmers going for stubble burning?

- **Mechanisation of Agriculture:** Mechanised harvesting extracts the rice grains only, leaving behind huge residue. Manual harvesting is not an option for farmers because of the huge labour charges and the increased time taken.
- **Lack of awareness:** Farmers are not realising that they are burning the soil friendly insects, organic matter, and causing considerable loss of nitrogen, DAP, Potassium.
- **Alternatives are Expensive:** Despite the Punjab government making available tractor-mounted 'happy seeders' to cut down the rice stubble and sow wheat seeds simultaneously, many farmers find the prices of these machines or their rents prohibitive. So, they continue to burn stubble.
- **Reduced usage of Stubble:** Earlier, the stubble used to be used by farmers as hay to keep animals or homes warm, and even for cooking. However, these uses of stubble have now become outdated. Also, rice straw is not considered suitable as fodder for animals because of its high silica content.
- **Government Policies:** Some of the policies of government, for example Punjab Preservation of Subsoil Water Act of 2009, had unintentional effect of promoting stubble burning.

#### What are the effects of Stubble burning?

- **Air Pollution**
  - o The process of burning farm residue is one of the major causes of air pollution in parts of north India, deteriorating the air quality.
  - o Stubble burning by farmers in Haryana, western Uttar Pradesh and Punjab in north India is considered a major cause of air pollution in Delhi and its adjoining regions.
  - o It contributes to a lot of greenhouse gas emissions.
  - o Stubble burning across Punjab and Haryana contributes to the winter haze in Delhi where about 40% of the near-surface PM can be attributed to the stubble burning.
  - o It also contributes to the winter smog seen in these parts of the country.
- **Soil Fertility**

- o The heat from burning paddy straw penetrates 1 centimetre into the soil, elevating the temperature to 33.8 to 42.2 degree Celsius. This kills the bacterial and fungal populations critical for a fertile soil.
- o The solubility capacity of the upper layers of soil has also been reduced.
- o Burning of crop residue causes damage to other micro-organisms present in the upper layer of the soil as well as its organic quality.

#### What does the law say on stubble burning?

- Section 188 of the Indian Penal Code (IPC) makes stubble burning a crime. Additionally, it was notified as an offence under the Air (Prevention and Control of Pollution) Act, 1981.
- On December 10, 2015, the National Green Tribunal (NGT) had banned crop residue burning in the states of Rajasthan, Uttar Pradesh, Haryana and Punjab
- The Supreme Court, in November 2019, had directed the governments of Punjab, Haryana and Uttar Pradesh to pay farmers a financial incentive to curb the practice.
- The Supreme Court had asked the central government to form a task force to prevent farmers from burning stubble.

#### What measures have been taken by the government to address this issue?

- Under a 100% centrally-funded scheme, in-situ residue management machines are given to individual farmers at 50% subsidy and to CHCs (custom hiring centres) at 80% subsidy.
- More than 23,000 crop residue management machines are being given to farmers for on-site management of straw.
- In 2020, the Government of Punjab appointed 8000 nodal officers in villages that grow paddy in order to put a check on stubble burning.
- Already, penalties for stubble burning are imposed on farmers who break the law and resort to burning crop residue
- The Commission on Air Quality Management in NCR and Adjoining Areas (CAQM) has developed a framework and action plan for effective prevention and control of Stubble Burning
  - o **In-situ Crop Residue Management:** Crop Residue Management machines procurement, setting up of Custom Hiring Centers, extensive use of bio-decomposer (turns crop residue to manure in 15-20 days)
  - o **Ex-situ Crop Residue Management-** Alternative usage of paddy straw viz. Biomass Power Projects, Co-firing in Thermal Power Plants, Feed stock for 2G Ethanol plants, Feed stock in Compressed Biogas plant, fuel in industrial boilers, WTE plants, packaging materials etc.
  - o **IEC (Information, education & Communication) activities** for the plan of action
  - o Standard protocol for recording and monitoring of fire counts.

#### What is the way ahead?

- **Dual Strategy:** Both in-situ (in the field) and ex-situ (elsewhere) solutions, as mentioned in CAQM framework needs to be effectively implemented.
- **Short term Solution:** Giving farmers easy and affordable access to the machines which allow them to do smart straw management.
- **Utilizing Crop Stubble:** Instead of burning of the stubble, it can be used in different ways like cattle feed, compost manure, roofing in rural areas, biomass energy, mushroom cultivation, packing materials, fuel, paper, bio-ethanol and industrial production, etc.

- **Government Incentives:** The government should also subsidise or incentivise the industries that are engaged in converting stubble into economically viable products. The government can also consider reinterpreting the MSP scheme to disallow the benefits of the scheme to farmers who practice crop residue burning.
- **Improving Agri-machines:** Improvement should be made in the technology used in harvesting machines so that minimal residue is left behind.
- **Short Duration Paddy Varieties:** One thing that scientists at the Punjab Agriculture University (PAU), Ludhiana have done is breed shorter-duration paddy varieties.
- **The long-term solution** has to be crop diversification, away from paddy. Encourage farmers to sow alternate crops and shift them away in the long run from paddy to maize, fruits, vegetables and cotton.
- **Farmer Education:** Farmers have a difficult time unlearning the practice of stubble burning and they should be educated about its ill-effects and also offered attractive alternatives.

### Electric Vehicles and Battery Fires

**Context:** The Union Government has constituted an expert panel to probe the recent series of battery explosions in electric vehicles (EVs).

- Manufacturers like Okinawa and Pure EV have **recalled some batches of electric scooters** following fire incidents involving the vehicles.

**What are electric vehicles? What are different types of electric vehicles?**

- EVs are vehicles that are either partially or fully powered on electric power.
- While some EVs used lead acid or nickel metal hydride batteries, the standard for modern battery electric vehicles is now considered to be **lithium ion batteries** (discussed in detail below)

**There are four types of electric vehicles available:**

- **Battery Electric Vehicle (BEV):** Fully powered by electricity. These are more efficient compared to hybrid and plug-in hybrids.
- **Hybrid Electric Vehicle:**
  - **Hybrid Electric Vehicle (HEV):** HEVs have both engine and electric motor. The engine gets energy from fuel, and the motor gets electricity from batteries. The transmission is rotated simultaneously by both engine and electric motor. This then drives the wheels.
  - **Plug-in Hybrid Electric Vehicle (PHEV):** Uses both an internal combustion engine and a battery charged from an external socket (they have a plug). This means the vehicle's battery can be charged with electricity rather than the engine. PHEVs are more efficient than HEVs but less efficient than BEVs.
- **Fuel Cell Electric Vehicle (FCEV):** FCEVs are also known as Zero-Emission Vehicles. They employ 'fuel cell technology' to generate the electricity required to run the vehicle. The chemical energy of the fuel is converted directly into electric energy.

**Why is the world poised to transition to electric vehicles?**

- **Climate Concerns:** The growing concern over climate change has led to global efforts to electrify the transportation sector.



- **Reducing Cost:** In parallel, cost of Li-ion (Lithium-ion) battery technology has decreased by a staggering order of magnitude in the last decade.
- **Government Push:** Governments providing incentives to usher in the transition to electric mobility so as to emerge as leaders in the global market.
- **Private Investment:** Market forces are also pushing aggressively for transiting the mobility sector from petrol/diesel based to electric based.

#### What are the benefits of electric vehicles?

- **Energy Efficiency:** EVs convert over 60% of the electrical energy from the grid to power at the wheels (petrol & diesel cars only convert 17%-21% of the energy stored in the fuel to the wheels)
- **Low maintenance cost:** EVs have very low maintenance costs because they don't have as many moving parts as an internal combustion vehicle.
- **Eco-friendly:** Driving an electric vehicle can help you reduce your carbon footprint. Even when electricity production is taken into account, petrol or diesel vehicles emit almost 3 times more carbon dioxide than the average EV.
- **Tax and financial benefits:** Registration fees and road tax on purchasing electric vehicles are lesser than petrol or diesel vehicles.
- **Easy to drive and quiet:** Electric vehicles don't have gears and are very convenient to drive. Electric vehicles are also quiet, as there is no engine under the hood. No engine meaning no noise pollution.
- **Reduced energy dependence:** Electricity is a domestic energy source and the country's dependency on oil imports will be reduced drastically.

#### What are some of the challenges with Electric Vehicles?

- As the EV gains momentum, battery production and research is powering ahead and sales are growing. That means **material emissions** will rise to over 60% by 2040 from 18% today.
- Currently battery units in EVs are heavy, increasing the total weight of the car, which in turn requires more energy to drive. To deal with this, carmakers are turning to aluminium for light-weight body designs, with EVs using 45% more of the Aluminium than traditional vehicles. **Emissions from aluminium have started rising** because it's energy-intensive to mine and produce.
- **Concerns of disposal** of used & broken batteries are conveniently palmed off on poor, vulnerable countries – such as the Democratic Republic of Congo, which produces 60% of the world's Cobalt – that lack the legislation to deal with them.
- **Unavailability of Materials for Domestic Production:** Battery is the single most important component of EVs. India does not have any known reserves of lithium and cobalt which are required for battery production.
- **Weak Manufacturing base:** It is estimated that by 2020-30 India's cumulative demand for batteries would be approximately 900-1100 GWh. However, there is concern over the weak manufacturing base for batteries in India, leading to heavy reliance on imports to meet rising demand.

#### How is government promoting Electric Vehicles?

- India is among a handful of countries that support the global EV30@30 campaign, which aims for at least **30% new vehicle sales to be electric by 2030.**

- FAME, or Faster Adoption and Manufacturing of (Hybrid and) Electric vehicles, is currently India's flagship scheme for promoting electric mobility.
- Government has also recently launched Production-Linked Incentive (PLI) scheme for Advanced Chemistry Cell (ACC) for the supplier side and PLI scheme for Auto and Automotive Components for manufacturers of electric vehicles.

The government offers different types of financial incentives to make electric vehicles more affordable for you. The key mechanisms for getting incentives are:

- **Purchase Incentives:** Direct discount provided to the user on the cost of the electric vehicle
- **Coupons:** Financial incentive where the amount is reimbursed later
- **Interest Subventions:** Discount offered on the interest rate while availing loan
- **Road tax exemption:** Road tax at the time of purchase is waived off
- **Registration fee exemption:** One-time registration fee applicable on new vehicle purchase is waived off
- **Income tax benefit:** Provided as a deduction on the tax amount payable by an individual to the government
- **Scrapping incentives:** Provided upon de-registering old Petrol and Diesel Vehicles
- **Others:** Incentives such as interest-free loans, top-up subsidies, special incentives on electric three-wheelers, etc. can also be availed.

#### What factors are leading to battery fires?

- Battery fires, like other fires, occur due to the convergence of three parts of the "fire triangle": heat, oxygen, and fuel.
- If an **adverse event** occurs in the battery, the internal temperature can raise as the anode and cathode release their energy through the short.
- This, in turn, can lead to a **series of reactions** from the battery materials, especially the cathode, that release heat in an uncontrolled manner, along with oxygen.
- Such events also **rupture the sealed battery** further exposing the components to outside air and the second part of the fire triangle, namely, oxygen.
- The final component of the triangle is **the liquid electrolyte, which is flammable** and serves as a fuel. The combination leads to catastrophic failure of the battery resulting in smoke, heat, and fire, released instantaneously and explosively.

#### The trigger for an adverse event can be a result of

- Internal shorts
- External events
- Overcharging the battery which leads to heat releasing reactions on the cathode (by a faulty battery management system that does not shut down charging despite the battery achieving its designed charge state)
- Bad thermal design at the module and pack level (by not allowing the battery internal heat to be released).

#### How can one prevent battery fires?

- Preventing fires requires breaking the fire triangle.
- Battery cathodes are a leading cause of the heat release. Some cathodes, such as ones **with lower nickel content** or moving to iron phosphate, can increase safety.

- **Tightly controlled manufacturing** will prevent accidental shorts in the cells, eliminating a leading cause of fires.
- Many companies now add a **ceramic layer on the separator** to prevent shorts
- Protecting the cell with robust **thermal management** is critical, especially in India where ambient temperatures are high.
- Companies are developing **internal “switches”** that turn off parts of the battery that undergo thermal events to stop them at their inception.
- Research is now underway to replace the flammable liquid electrolyte with a **solid electrolyte** to eliminate one part of the fire triangle.
- Debates are mounting on whether **battery swapping** would be a better solution for electric scooter in India.
- Engineering safety requires commitment from all parts of the battery supply chain and tight integration between vehicle companies and battery companies.
- Further, regulators play an important role, providing the testing and certification needed to ensure battery safety.

#### What is the way forward?

- Safety is a must and is an important consideration that battery and vehicle manufacturers can design for at multiple levels from the choice of battery material to designs at the cell, pack, and vehicle level.
- There is need for realistic solutions like battery recycling, prioritizing types that use less carbon-intensive materials, or emission caps on the battery and electric vehicle manufacturing process.

### Ethanol Blending

**Context:** The Union Cabinet recently advanced by five years its target for achieving 20% ethanol blending in petrol. The amended National Biofuel Policy-2018 has now set the new target for 2025-26 instead of 2030.

#### What is ethanol and what are its characteristics?

- Ethanol ( $\text{CH}_3\text{CH}_2\text{OH}$ ) also known as ethyl alcohol, is a clear, colorless liquid with a characteristic wine-like odour and pungent taste.
- It is highly flammable and is considered a volatile organic compound
- Ethanol is used to dissolve other chemical substances and mixes readily with water and many organic liquids.
- It is one of the principal biofuels naturally *produced* by the **fermentation of sugars** by yeasts or via **petrochemical processes**
- Ethanol can be produced from sugarcane, maize, wheat, etc which are having high starch content. In India, ethanol is mainly produced from sugarcane molasses by fermentation process.
- Since ethanol is produced from plants that harness the power of the sun, ethanol is also considered as renewable fuel.

#### What is the history of ethanol-blending in India?

- Since two decades, India has been moving towards putting in place an ecosystem to have more ethanol blended into petrol for use vehicles, particularly two and four wheelers.

- Since 2001, India has tested the feasibility of ethanol-blended petrol whereby 5% ethanol blended petrol (95% petrol-5% ethanol) was supplied to retail outlets.
- In 2002, India launched the Ethanol Blended Petrol (EBP) Programme and began selling 5% ethanol blended petrol in nine States and four Union Territories that was extended to twenty States and four UTs in 2006.
- In 2015, the Ministry of Road Transport and Highways notified that E5 [blending 5% ethanol with 95% gasoline] petrol and the rubber and plastic components used in gasoline vehicles produced since 2008 be compatible with the E10 fuel.
- In 2019, the Ministry notified the E10 fuel [blending 10% ethanol with 90% gasoline]. The rubber and plastic components used in petrol vehicles are currently compatible with E10 fuel.
- Financial incentives for distilleries coupled with policy support has seen average blending touch 5%.
- Standards for E20, E85 and even E100 fuel have already been laid. This includes standards for ethanol blended diesel.
- Ethanol supplies have improved from 380 million litres in 2013-14 to 1.89 billion litres in 2019. Offers of about 3.5 billion litres from both sugar/molasses and grain-based distilleries are expected in 2020-21.
- In 2019, in a first for the Republic Day parade, the Indian Air Force flew aircraft in a Vic formation, with the lead plane using a mix of traditional fuel and biofuel, symbolizing the government's determination to seek alternative sources of fuel.
- Since 2020, India has been announcing its intent to achieve 10% blending by the end of 2022 and 20% blending by 2030. The Centre has also targeted 5% blending of biodiesel with diesel by 2030.

#### What is the biofuel policy?

- Biofuels are any hydrocarbon fuel that is produced from an organic matter (living or once living material) in a short period of time is considered a biofuel.
- These can be used to replace or can be used in addition to diesel, petrol or other fossil fuels for transport, stationary, portable and other applications. Also, they can be used to generate heat and electricity.
- There are four categories of biofuels:
  - o **First Generation:** made from food sources such as sugar, starch, vegetable oil, or animal fats using conventional technology. It entails food vs fuel debate. Ex: Bioalcohols, Biodiesel,
  - o **Second Generation:** produced from non-food crops or portions of food crops that are not edible and considered as wastes, e.g. stems, husks, wood chips, and fruit skins and peeling. Ex: cellulose ethanol, biodiesel.
  - o **Third Generation:** produced from micro-organisms like algae. Example- Butanol
  - o **Fourth Generation Biofuels:** Crops are genetically engineered to take in high amounts of carbon are grown and harvested as biomass. The crops are then converted into fuel using second generation techniques.
- Introduced in 2018, the National Biofuel Policy is aimed at reducing dependence on imports by encouraging fuel blending.
- The policy also allows usage of **excess rice or damaged foodgrains as feedstock** for ethanol production.



- The **National Biofuel Coordination Committee (NBCC)**, with the Union Minister for Petroleum and Natural Gas as its head, is the agency to coordinate this blending programme.
- The 2018 policy was amended recently to introduce several changes. The most important amendment has been
  - o Advancing the 20% blending date by five years from Ethanol Supplying Year (Dec to Nov) from 2030 to 2025-26.
  - o Introduction of more feedstock for production of biofuels
  - o Production of biofuels under the 'Make in India' programme in Special Economic Zones, Export Oriented Units;
  - o Permission to allow export of biofuels in specific cases
  - o Addition of new members to the NBCC and empowering the Committee to change the policy which it earlier lacked.

#### What are the merits of Ethanol Blending?

- **Reduced Oil Dependence:** Ethanol can be sourced from sugarcane, molasses, maize, which given India's agricultural base, can substantially reduce India's dependence on petroleum.
- **Environment Friendly:** Because ethanol burns more completely than petrol, it avoids emissions such as carbon monoxide.
- **Saving on Foreign Exchange:** India's net import of petroleum was 185 million tonnes in 2020-21 at a cost of USD 55 billion. Most of the petroleum products are used in transportation and therefore, the E20 programme can save the country USD 4 billion or about ₹30,000 crore annually
- **Benefits Sugar Industry:** Ethanol Blending programme injects liquidity into the stressed sugar sector. This programme also encourages diversion of sugarcane for ethanol production, which results in a decrease in the sugar glut in the country.
- **Boosting Farmer Money:** In India, ethanol is mainly produced from sugarcane molasses by fermentation process. Usage of sugarcane for ethanol production can help provide additional venue for farmers to increase their income.
- **Improves Payment Cycle for farmers:** The arrangement of OMCs providing off-take guarantee at fixed prices also improves the health of the payment cycle to farmers since OMCs settle their ethanol dues to distilleries in 21 days instead of the months that the farmers had to wait for their payment from sugar mills.
- **Alternative Market for Rice produce:** The recent decision to utilise surplus rice available with the Food Corporation of India and maize as an additional source of feedstock for ethanol production, starting this year, means farmers will now have an alternative market for their produce.

#### What are the challenges with Ethanol Blending?

- **Mandatory modification in auto components:** It takes much more ethanol to power a vehicle's engine than petrol. It also leaves residual by-products that can corrode and damage the vehicle which is why, while vehicles can be run on ethanol, they need to be tuned accordingly so that they don't compromise on efficiency and usability.
- **Increased Cost:** The two-wheeled flex fuel vehicles (capable of E20 fuels) would be costlier by ₹5,000 to ₹12,000 compared to regular petrol vehicles. Also, the prices of ethanol produced in India are higher compared to U.S. and Brazil, because of the minimum support prices that the government provides.

- **Pollution not completely abated:** Tests conducted in India have shown that there is no reduction in nitrous oxides when ethanol is burnt, one of the major environmental pollutants.
- **Substantial Opportunity Cost:** For India to meet its target of 20% ethanol blended in petrol by the year 2025, it will need to bring in 30,000 additional sq km of land to come under maize cultivation. Half that land can be used more efficiently to produce clean electricity from solar energy, it is estimated.
- **Weak Financial Position of Sugar Mills:** Many cooperative sugar mills have complained about a fund crunch. Banks, they claim, are reluctant to finance sugar mills given their weak balance-sheets. As a way out, mills have asked for tripartite agreements between OMCs, banks and cane suppliers to clear payments within 21 days. However, most banks have expressed their apprehensions.
- **High Water Consumption:** For India, sugarcane is the cheapest source of ethanol. A litre of ethanol from sugar requires about 2,860 litres of water.
- **Less Production:** Sugar mills, which are the key domestic suppliers of bio-ethanol to OMCs, were able to supply only 57.6% of the total demand. Sugar mills do not have the financial stability to invest in biofuel plants.
- **Policy Uncertainty:** There are also concerns among investors on the uncertainty on the price of bioethanol in the future as the prices of both sugarcane and bio-ethanol are set by the central government.

#### What is the international experience?

- Flex Fuel Engine technology (FFE), or vehicles that run entirely on ethanol, are popular in Brazil and comprise nearly 80% of the total number of new vehicles sold in 2019.
- The global production of fuel ethanol touched 110 billion litres in 2019, or about an average growth of 4% year per year during the last decade.
- The U.S. and Brazil make up 92 billion litres, or 84% of the global share, followed by European Union (EU), China, India, Canada and Thailand.

### Green Hydrogen

**Context:** At the World Economic Forum in Davos, Switzerland, India stated that it will emerge as the leader of green hydrogen

- The assertion came almost a month after **Oil India Limited (OIL) commissioned India's first 99% pure green hydrogen plant in eastern Assam's Jorhat.**
- It was on April 20, 2022 that the public sector OIL set up India's first 99.99% pure green hydrogen pilot plant in Assam.
- Powered by a 500 KW solar plant, the green hydrogen unit has an installed capacity to produce 10 kg of hydrogen per day and scale it up to 30 kg per day.

#### What is Hydrogen fuel?

- A colourless, odourless, tasteless, non-toxic and highly combustible gaseous substance, **hydrogen is the lightest, simplest and most abundant member of the family of chemical elements in the universe.**
- **Hydrogen does not occur freely in nature in useful quantities.**
- It can be **made from natural gas or it can be made by electrolysis of water**—using electricity to split water into its constituent components of hydrogen and oxygen.

- When hydrogen is burned, it **only emits water vapour and carbon dioxide (CO<sub>2</sub>) is not produced.**
- It is **more efficient than an internal combustion engine.**
- Although hydrogen is a clean molecule, the **process of extracting it is energy-intensive.**
- Also, manufacturing hydrogen fuel based vehicle is expensive.

### What is Green Hydrogen?

The sources and processes by which hydrogen is derived, are categorised by colour tabs.

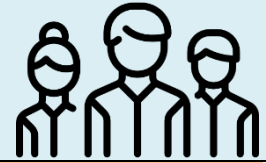
- **Hydrogen produced from fossil fuels is called grey hydrogen;** this constitutes the bulk of the hydrogen produced today.
- **Brown hydrogen is produced using coal** where the emissions are released to the air.
- **Hydrogen generated from fossil fuels with carbon capture and storage options is called blue hydrogen.**
- **Hydrogen generated entirely from renewable power sources is called green hydrogen.** In the last process, electricity generated from renewable energy is used to split water into hydrogen and oxygen.

### What are the advantages of Green Hydrogen?

- **Environment Friendly:** Green Hydrogen as energy source is seen as the next big thing as its usage would lead to zero emissions
- **Efficient utilization of Renewable Energy:** Renewable energy that cannot be stored or used by the grid can be channelled to produce hydrogen. The stored hydrogen can be used to produce electricity using fuel cells.
- **Usable By-products:** Oxygen, produced as a by-product, can also be monetised by using it for industrial and medical applications or for enriching the environment.
- **Reduced Dependence on Rare Minerals:** Green Hydrogen also holds the key to clean electric mobility that doesn't depend on rare minerals.
- **Reduces Import Bill:** Due to the availability of cheaper renewable energy, India is in a unique position to produce hydrogen for its own needs & thus reduce its import bill.
- **Helps Achieve Paris Goal:** Green hydrogen energy is vital for India to meet its Nationally Determined Contributions target.



## SOCIETY & SOCIAL ISSUES



### Marital Rape

**Context:** The Delhi High Court has recently delivered a split verdict on decriminalising marital rape in the country.

- Justice Rajiv Shakdher struck down Exception 2 of the Indian Penal Code's Section 375 that decriminalised rape within marriage
- Justice C. Hari Shankar upheld its validity.

#### What is marital rape?

- Marital rape, the act of forcing your spouse into having sex without proper consent.
- It is an unjust yet not uncommon way to degrade and disempowering women.
- The average Indian woman is 17 times more likely to face sexual violence from her husband than from others.
- Unfortunately, India does not recognize marital rape as an offence.

#### How does Indian Law regime deal with Marital Rape?

- **Section 375** of Indian Penal Code (IPC) defines the offence of rape with the help of six descriptions. One of the exceptions to this offence is "Sexual intercourse or sexual acts by a man with his own wife, the wife not being under 18 years of age is not rape".
  - In 2017, the Supreme Court in *Independent Thought v. Union of India*, 2017 struck down the exception to marital rape for a minor wife below 18 years of age. However, it did not go full way in criminalising marital rape
- The idea of implied consent comes from the **Doctrine of Hale**, given by Matthew Hale, the then British Chief Justice, in 1736. It states that a husband cannot be guilty of rape, since "by their mutual matrimonial consent and contract the wife has given up herself in this kind to the husband".
- The only punishable instances of rape committed within a marriage are: firstly, where the wife is a minor and secondly, when spouses are living separately under a decree of judicial separation.
- Non recognition of marital rape means that women's husband is her sexual master and his right to rape her is legally protected.

#### What is the history of the marital rape law in India?

- The Domestic Violence Act, 2005 hints at marital rape by any form of sexual abuse in a live-in or marriage relationship. However, it only provides for civil remedies. There is no way for marital rape victims in India to initiate criminal proceedings against their perpetrator.
- The Delhi High Court has been hearing arguments in the case since 2017. However, this is not the first time that the issue of marital rape has been raised in the country.
- The need to remove this marital rape exception was **rejected by the Law Commission of India in 2000**, while considering several proposals to reform India's laws on sexual violence.
- Following the Nirbhaya gang rape and murder case in 2012, the Justice JS Verma Committee was tasked with proposing amendments to India's rape laws. While some of its recommendations helped shape the Criminal Law (Amendment) Act passed in 2013, some suggestions, including that on marital rape, were not acted on.



- The issue has been brought up in Parliament as well. Dr Shashi Tharoor — a senior Congress leader and the Member of Parliament from Thiruvananthapuram — introduced a private member's Bill to amend Section 375 of the Indian Penal Code and allow for criminalising Marital rape. However, the bill could not see the light of the day.

#### What are the criticisms of India's Legal regime on Marital Rape?

- **Against Right to Life and Right to Equality:** The Supreme Court has included sanctity of women, and freedom to make choices related to sexual activity under the ambit of Article 21. Therefore, this exception clause is violative of Article 14 and Article 21 of the Indian Constitution.
- **Patriarchal outlook of Laws:** Rape laws in our country continue with the patriarchal outlook of considering women to be the property of men post marriage, with no autonomy or agency over their bodies. They deny married women equal protection of the laws guaranteed by the Indian constitution.
- **Differentiates Married & Unmarried women:** A married woman has the same right to control her own body as does an unmarried woman. Unfortunately, this principle is not upheld in Indian rape laws.
- **Marital Rape is more dangerous to Women's life:** Rape is rape, irrespective of the identity of the perpetrator, and age of the survivor. A woman who is raped by a stranger, lives with a memory of a horrible attack; a woman who is raped by her husband lives with her rapist.
- **Not a threat to institution of Family:** The country has adopted a domestic violence law that enables complaints against physical and sexual abuse. Therefore, making marital rape a criminal offence is unlikely to ruin the institution of marriage any more than a complaint of domestic violence or cruelty would.
- **Against International Norm:** Today, it has been impeached in more than 100 countries but, unfortunately, India is one of the only 36 countries where marital rape is still not criminalized
- **Concerns of Implied Consent:** The concept of marital rape in India is the epitome of what we call an "implied consent". Marriage between a man and a woman here implies that both have consented to sexual intercourse and it cannot be otherwise. The Indian Penal Code, 1860, also communicates the same.
- **Outdated notion of Marriage:** The exception given to marital rape harks back, as the report by the Justice J.S. Verma committee noted while recommending its removal, to an outdated notion of marriage that treated the wife as the husband's property.
- **Against Autonomy of Married Women:** Looking at marriage through the lens of 'coverture' — the view that the wife is under the husband's authority always — should not be allowed to override the autonomy of married women over their person.
- **Inconsistent provisions:** Other sexual offences make no such exemption for marriage. Thus, a husband may be tried for offences such as sexual harassment, molestation, voyeurism, and forcible disrobing in the same way as any other man.
  - In *Joseph Shine v. Union of India* (2018), SC held that the offence of adultery was unconstitutional because it was founded on the principle that a woman is her husband's property after marriage. Similar principle is not applied while recognising marital rape.
- **Colonial Hangover:** Our penal laws, handed down from the British, have by and large remained untouched even after 73 years of independence. But English laws have been amended and marital rape was criminalised way back in 1991. No Indian government has, however, so far shown an active interest in remedying this problem.

- **Violative of UN Convention:** Section 375 (Exception) of IPC is inconsistent with and violative of these principles of United Nations Declaration on the Elimination of Violence against Women
- **Does not pass the test of “intelligible differentia”:** Essentially, Section 375 (Exception) creates a classification not only between consent given by a married and unmarried woman, but also between married females below 15 years of age and over 15 years old. Such a classification does not pass the test of “intelligible differentia.”
- **Legislature tone deaf to women’s voices:** Even after the recent recommendations by the Justice J S Verma Committee in 2013 and Pam Rajput Committee in 2015, the lawmakers have taken no action against marital rape.
- **Economic costs:** Women may suffer isolation, inability to work, loss of wages, lack of participation in regular activities and limited ability to care for themselves and their children. Women absent themselves from employment as a result of the injuries and stress

#### What is government’s stand on marital rape?

- Government is of the opinion that criminalising marital rape will destabilises the institution of marriage, given the immense significance the institution has in Indian Society.
- Government also remarked in the Parliament that it would not be advisable to condemn every marriage as a violent one, and every man a rapist.
- In 2016, the Government had rejected the concept of marital rape, saying it “cannot be applied to the Indian context due to various factors like level of education/illiteracy, poverty, myriad social customs and values, religious beliefs and the mindset of the society to treat marriage as a sacrament”.
- In 2017, the Government had opposed the removal of the exception in Section 375 of the IPC that deals with rape.

#### How is marital rape treated around the world?

- According to Amnesty International data, 77 out of 185 (42%) countries criminalise marital rape through legislation. In other countries, it is either not mentioned or is explicitly excluded from rape laws, both of which can lead to sexual violence.
- While 74 countries allow women to file complaints against their husbands, 34 out of 185 do not provide any such provisions. About a dozen countries allow rapists to avoid prosecution by marrying their victims.
- The United Nations has urged countries to end marital rape by closing legal loopholes, saying that “the home is one of the most dangerous places for women”.

### LGBTIQ+

**In News:** International Labour Organisation (ILO) released a document “Inclusion of lesbian, gay, bisexual, transgender, intersex and queer (LGBTIQ+) persons in the world of work”

#### Recommendations

- Report recommended **member countries, employers’ organizations and representatives of workers to launch social protection programmes** to remove barriers that LGBTIQ+ persons face in society
- The ILO document said **discrimination has an economic cost not just to LGBTIQ+ persons and their families but also to enterprises and national economies.**

- The ILO added that around the world, LGBTIQ+ persons face **harassment, violence and discrimination on the basis of sexual orientation, gender identity, gender expression and sex characteristics**.
- It said a **national policy and labour law review will allow governments to assess their country's work policy environment for LGBTIQ+ persons** - This will allow the identification of concrete steps for **improving the legal and policy environment**, ending discrimination and exclusions, and complying with international instruments
- The document reported **consultation with LGBTIQ+ communities and social dialogue with employers' and workers' organisations are key** - This will allow the identification of barriers faced by LGBTIQ+ persons when entering the labour market and accessing government schemes
- Studies have **shown that diversity in the workplace, including LGBTIQ+ persons, is better for business**.
- It signals a creative environment that creates the right conditions for economic growth

#### Challenges Faced by LGBTIQ+ Community

- **Family:** The problem of sexual orientation and gender identity leads to fighting and family disruption - **lack of communication and misunderstanding** between parents and their LGBTQ children increases family conflict.
- **Discrimination at Work Place:** LGBTQ suffers from the socio-economic inequalities in large part due to discrimination in the workplace.
- **Health Issues: Criminalisation of homosexuality** leads to discrimination and results in LGBTQ people getting poor or inadequate access to services within the health system.
- **Drug Abuse:** They gradually develop low self-esteem and low self-confidence and become isolated from friends and family. These people mostly get addicted to drugs and alcohol

#### Status of LGBTIQ+ Rights in India

- **National Legal Services Authority Vs. Union of India (2014):** The SC observed that "recognition of transgenders as a third gender is not a social or medical issue, but a human rights issue".
- **Navtej Singh Johar vs. Union Of India (2018):** The SC decriminalised homosexuality by striking off parts of **Section 377 of the Indian Penal Code (IPC)** which were held violative of Fundamental Rights of LGBTQ Community.
- ❖ The SC held that Article 14 of the Constitution guarantees equality before law and this applies to all classes of citizens thereby restoring 'inclusiveness' of LGBTQ Community.
- **Transgender Persons (Protection of Rights) Act, 2019:**
  - ❖ The Parliament has enacted the Transgender Persons (Protection of Rights) Act, 2019, to prohibit discrimination against Transgender persons
- **Same Sex Marriages: In Shafin Jahan v. Asokan K.M. and others (2018) case,** the SC observed that **choice of a partner is a person's fundamental right and it can be a same-sex partner**.
- However, in February, 2021, **the Central Government opposed same-sex marriage in Delhi High Court stating that a marriage in India can be recognised only if it is between a "biological man" and a "biological woman" capable of producing children.**

#### Way Forward

It is time to recognize the rights of LGBTIQ+ community through anti-discrimination law that empowers them to build productive lives and relationships irrespective of gender identity or sexual orientation and place the onus to change on state and society and not the individual.

## The Language debate of India

**Context:** The recent remarks by a Hindi actor to the effect that Hindi is the national language of India and the counter by a Kannada star, sparked a controversy over the status of the language under the Constitution.

- Many were quick to point out that there is no national language for India, and that Hindi is the official language of the Union.

### What is the status of Hindi?

- India being a linguistic diverse country has always celebrated diversity. Our Constituent makers were conscious of this fact and hence debated hotly on the topic of language in Constituent Assembly.
- Division in Constituent Assembly on the issue:**
  - Members of Constituent assembly who came from states that did not speak Hindi opposed the declaration of Hindi as National Language for they feared it would lead to domination of Hindi at the cost of regional languages.
  - Proponents of Hindi were insistent that English was the language of enslavement and that it should be eliminated as early as possible.
  - There were demands to make **Sanskrit** the official language, while some argued in favour of '**Hindustani**'.
- Compromise**
  - Ultimately, it was decided that the Constitution will only speak of an '**official language**' and not National Language.
  - It said that **Hindi will be the Official Language** of the Union. And that English would continue to be used for a **period of 15 years**
  - The Constitution said that after 15 years, Parliament may by law decide on the use of English (dealt by Official Languages Act, 1963).
- Status of Hindi**
  - Under **Article 343** of the Constitution, the **official language** of the Union shall be **Hindi in Devanagari script**. The international form of Indian numerals will be used for official purposes.
  - Hindi is spoken by nearly 57% of Indians** and 43% of people reported it as their mother tongue (Census 2011).

### What about regional languages?

The Constitution does not provide for the official language of states. However, It says that :

- The legislature of a state may adopt any one or more of the languages belonging to the state or Hindi as the official language of that state. Until then, English will continue as the official language of that state.
- As a response to this the states have adopted the regional languages as their official language.
- There is **no compulsion** for the state to choose the language from the **Eighth Schedule of the Constitution**.
- Any two or more states are free to agree to use Hindi (instead of English) for communication between themselves

### What were 1965 protests about?



- Original Constitution had provided for the use of English as official language of the Union only for 15 years.
- In Tamil Nadu, then known as Madras, the prospect of the use of Hindi as the medium of examination for recruitment to the Union public services created an apprehension that Hindi would be imposed in such a way that the future employment prospects of those who do not speak Hindi will be bleak.
- Soon protests broke out and took a violent turn after more and more student activists joined the protest. More than 60 people died in police firing and other incidents as the protests went on for days.
- The agitation died down later, but by then the Congress at the Centre realised the **sensitivity of the language** issue among Southern States and therefore included the provision for continued use of English language in **Official Languages Act (1963)**.
- **The 1963 act also** provided for following provisions
  - o Authorized Hindi translation of Central Acts, etc.
  - o Optional use of Hindi or other official language in judgments, etc., of **High Courts** (no mention of Supreme Court)
  - o English should be the communication language between the Union and the non-Hindi states.
  - o The communication between Hindi and Non-Hindi states if done in Hindi then it must be accompanied by an English translation.

#### What is the language of Higher Judiciary?

- **Article 348(1)(a)** states that unless Parliament by law provides otherwise, all proceedings before the Supreme Court and in every High Court shall be conducted in English.
- **Article 348(2)** provides further that notwithstanding the provisions of Article 348(1), the Governor of a state may, with the previous consent of the President, authorize the use of Hindi or any other language used for any official purpose, in proceedings in the High Court
- Therefore, the Constitution recognizes English as the primary language of the Supreme Court and the High Courts, with the caveat that when some other language is used in the proceedings of High Courts, judgments of the High Courts must be delivered in English.
- Currently, the language of SC proceedings is English only. All pleadings, documents and arguments in the Supreme Court are in English.
- Interestingly, bills have also been introduced in Parliament - the *High Courts (Use of Official Languages) Bill, 2016* and the *Supreme Court, High Courts and District Courts (Use of Official Languages) Bill, 2018* - to mandate the use of regional languages in courts including the Supreme Court, but so far nothing has come of these.

#### What is Eighth Schedule?

- The Eighth Schedule contains a list of languages in the country. Initially, there were 14 languages in the schedule, but now there are 22 languages.
  - o Following are Eighth Schedule languages: 1) Assamese, (2) Bengali, (3) Gujarati, (4) Hindi, (5) Kannada, (6) Kashmiri, (7) Konkani, (8) Malayalam, (9) Manipuri, (10) Marathi, (11) Nepali, (12) Oriya, (13) Punjabi, (14) Sanskrit, (15) Sindhi, (16) Tamil, (17) Telugu, (18) Urdu (19) Bodo, (20) Santhali, (21) Maithili and (22) Dogri.

#### What are classical languages?

- A classical language is any language with an independent literary tradition and a large and ancient body of written literature
- Currently there are **six languages** that enjoy the '**Classical**' status in India:
  - Tamil (declared in 2004), Sanskrit (2005), Kannada (2008), Telugu (2008), Malayalam (2013), and Odia (2014).
  - All the **Classical Languages** are listed in the **Eighth Schedule of the Constitution**.
- The **Ministry of Culture** provides the guidelines regarding Classical languages which are as given below:
  - **High antiquity of its early texts/recorded history** over a period of 1500-2000 years;
  - A body of **ancient literature/texts**, which is considered a valuable heritage by generations of speakers.
  - The **literary tradition is original** and not borrowed from another speech community.
  - The classical language and literature being **distinct from modern**, there may also be a discontinuity between the classical language and its later forms or its offshoots.
- Once a language is notified as a Classical language, the **Education Ministry** provides certain benefits to promote it:
  - Two major annual international awards for scholars of eminence in classical Indian languages.
  - A **Centre of Excellence for studies** in Classical Languages is set up.
  - The University Grants Commission is requested to create, to start with at least in the Central Universities, a certain number of **Professional Chairs for the Classical Languages so declared**.

#### Why is promotion of Hindi language resisted? Or why having Hindi as National Language is not conducive?

- **Fear of Hegemony of Hindi Belt:** Making government communication solely in Hindi produces information asymmetry and perpetuates the hegemonic dominance of the Hindi belt.
- **Hindi Imposition leads to Coercive assimilation:** Standardization or imposition of one language may inevitably lead to unintentional & coercive assimilatory practices.
- **Threat to Native Culture & knowledge:** Language is the carrier of society's culture. It is through one's own language that people are able to express effectively. Disappearance of language due to imposition of non-native language will eventually lead to sublimation of native culture & the traditional knowledge.
- **Disproportionate Access to Public Resources:** Also, using only a majority language for government services, central government laws and communications effectively impedes public access to a minority population who are not bilingual. It also distorts the level playing field in government employment at Union Level (recall 1965 protests)
- **Protection & Promotion:** There is a significant difference between protection of minority languages and promotion of minority languages, the former being a negative restriction and the latter being a positive obligation.
- **Idea of India:** The promotion of linguistic diversity is not because of a functional efficacy but the embracement of the Indian identity: the idea that India is diverse, and yet 'one'. The idea of "one country, one language" is not only fallacious but also dangerous to the unity & integrity of India itself.
  - One of the underlying factor for the birth of Bangladesh was imposition of Urdu from West Pakistan.

- o The unrest in Sri Lanka can be attributed to not given adequate protection to Tamil speaking minority population.

#### What is three language formula?

- 1968 the **New Education Policy** introduced the Three-Language Formula
  - o In Hindi-speaking states, the formula translated into learning Hindi, English and a modern Indian language (preferably south Indian).
  - o For students in non-Hindi speaking states, it mandated lessons in Hindi, English and the regional language
- The three functions which the three language formula sought to serve, were
  - o Accommodating group identity
  - o Affirming national unity
  - o Increasing administrative efficiency
- Incidentally, the National Educational Policy 1986 made no change in the 1968 policy on the three-language formula and the promotion of Hindi and repeated it verbatim.

#### Why is South, particularly Tamil Nadu, historically opposed to Hindi Language?

- Language being the vehicle of Culture is protected vociferously by civil society & politicians in the State.
- An important aspect of the opposition to Hindi imposition is that many in Tamil Nadu see it as a fight to retain English.
- English is seen as a bulwark against Hindi as well as the language of empowerment and knowledge.
- There is an entrenched belief in certain sections of society that the continued attempts to impose Hindi will eventually lead to elimination of English, global link language.
- However, voluntary learning of Hindi has never been restricted in the State. The patronage for the 102-year-old Dakshina Bharat Hindi Prachar Sabha, based in Chennai, proves this.

#### What has been the impact on India due to Language Politics?

- **Allegation of Imposition of Hindi:** In Non-Hindi speaking states Hindi is mandated as third language however, it a difficult task as at least in 20 out of 28 states Hindi is not the natural language. This leads to misconstruing promotion of Hindi as imposition.
- **Identity Politics:** Language, from the very birth of the independent India, remained a contentious issue and as a result it has become tied with the identity politics.
- **Reactionary Policies:** States have often implemented reactionary policies against the centre's enthusiasm to promote Hindi.
- For example, Kerala, Tamil Nadu, and West Bengal made it compulsory to learn their state languages across schools in the respective states
- **Domino Effect:** Such reactionary policies have a domino effect which jeopardizes other administrative functions and center-state relations.

#### What does NEP 2020 say about the Three Language Formula?

- **Medium of Instruction:** Wherever possible, the medium of instruction until at least Grade 5, but preferably till Grade 8 and beyond, will be the home language/mother tongue/local language/regional language.

- The three-language formula will continue to be implemented while keeping in mind the need to promote multilingualism as well as promote national unity.
- NEP also stated that there will be a **greater flexibility** in the three-language formula, and no language will be imposed on any State.
- The three languages learned by children will be the choices of States, regions, and of course the students themselves, so long as at least two of the three languages are native to India.

#### What is the Criticism of NEP 2020 with regards to Language?

- As opposed to the previous policy, the current draft suggests the introduction of languages at the primary level itself. This is criticized on the ground that it will be Cognitive burden on young children to learn languages
- **Back Door Entry for Hindi:** Tamil Nadu which is having two language policy in State opposes the continuation of Three Language Policy as they fear this would eventually pave the way for Hindi to enter the State through the back door.
- **Scarcity of Teachers of non-Hindi Languages:** Several linguistic activists and educationists observed that the move would eventually end up in students being forced to learn Hindi because of scarcity of teachers in other languages
- **Discrimination in Funds:** The Centre has allotted 50 crore for development of Hindi, while no such funds are given to other languages.

#### What is the Way Forward?

- Languages in the eighth schedule of the Constitution are part of India's cultural heritage; promotion and protection of which is an integral part of the duties of all governments together, as a shared responsibility of all.
- Equal respect for all constitutionally recognised languages is the first step in forming a more inclusive country sensitive to (linguistic) minorities.
- For languages not in the eighth schedule but peculiar to the state, the state government should be the torch bearer of protection and promotion of the language
- Nonetheless, one should be careful so as not to take it to the extreme.

### Surrogacy Regulation Act, 2021

**Context:** After years of struggle by activists, the Surrogacy (Regulation) Act, 2021 was enacted last year by Parliament to regulate the process of surrogacy. The Act was made effective on January 25, 2022 after the notification in the Official Gazette by the Union Government.

#### What Surrogacy and what are the different types?

- **Surrogacy** means the process of carrying and delivering a child for another person or couple (intending parents).
- Thus, a surrogate mother is a woman who bears a child on behalf of another woman, either from her **own egg (Traditional Surrogacy)** or from the implantation in her womb of a fertilized **egg from another woman (Gestational surrogates)**.
- A technique called "**in vitro fertilization**" (**IVF**) now makes it possible to gather eggs from the mother (or an egg donor), fertilize them with sperm from the father (or a sperm donor), and place the embryo into the uterus of a gestational surrogate. Gestational Surrogate doesn't have any genetic ties to the child because it wasn't their egg that was used.



There can be two arrangements involving surrogacy

- **Commercial surrogacy** involves an agreement, which includes monetary compensation to the surrogate mother along with medical expenses associated with the pregnancy.
- **Altruistic surrogacy** focuses on providing no monetary compensation to the surrogate mother

**What are the advantages of Surrogacy?**

- Surrogacy allows infertile couples, single people and members of the LGBT community to become parents **when they may not be able to have children otherwise.**
- It allows one or both parents to be **biologically related to their child**
- Surrogacy gives hopeful parents the opportunity to **raise a child from birth.**
- Intended parents may face **fewer restrictions** with surrogacy than with **adoption**; those who cannot adopt due to agency restrictions on factors like age can still pursue surrogacy.

**What were the reasons for Increase of Surrogacy in India?**

- **Low cost:** Surrogacy cost in India is around 1/3rd of that in developed countries like the USA. This had made India a favorable destination for foreign couples who look for cost-effective treatment for infertility through Surrogacy in India
- **Availability of women** who could rent their womb at low cost, primarily due to their own poor income levels
- **Grey Area:** Surrogacy was not regulated by a specific legislation (till 2021) which allowed private sector to grow rapidly & offer the services
- **Availability of Technology** at affordable cost also aided the growth of the sector

**What was the need to have specific legislation to deal with Surrogacy?**

- **Much Needed:** By 2012, India had become the 'surrogacy capital' of the world with surrogacy tourism valued at approximately \$500 million annually. Couples would arrive in India, and buy wombs and take children back
- **To Curb unethical practices:** Lack of specific legislation had led to unregulated growth of Commercial Surrogacy services.
- **To curb the exploitation of women:** Commercial surrogacy was legalized in India back in 2002. Due to the absence of legal regulations and lack of implementation, surrogate mothers faced multiple challenges, including exploitation, unhygienic living conditions, and unfair treatment.
- **Legal Issues:** Sometimes, Indian adoption laws or citizenship laws of some other countries also create problems. For example, Germany gives citizenship by mother; this creates issues in determining the nationality of child.
  - o In 2008, a Japanese couple began the process with a surrogate mother in Gujarat, but before the child was born they split and there were no takers for the child.
  - o In 2012, an Australian couple commissioned a surrogate mother, and arbitrarily chose one of the twins that was born.
- **Ethical Issues:** Surrogacy leads to **commodification of the child.** Renting of the womb breaks the bond between a mother and the child, interferes with nature
  - o Ex - There has been a case in Andhra where a 74-year-old woman gave birth to twins. There were questions as to how will such an old person bring up their children.

**What are the key features of Surrogacy (Regulation) Act of 2021?**

- **Definition of Surrogacy:** The Bill defines surrogacy as a practice where a woman gives birth to a child for an intending couple with the intention to hand over the child after the birth to the intending couple.
- **Regulation of surrogacy:** The Bill prohibits commercial surrogacy, but allows altruistic surrogacy.
- **Purposes for which surrogacy is permitted:** Surrogacy is permitted when it is:
  - o for intending couples who suffer from proven infertility;
  - o altruistic;
  - o not for commercial purposes;
  - o not for producing children for sale, prostitution or other forms of exploitation;
  - o for any condition or disease specified through regulations.
- **Eligibility criteria for intending couple:** The intending couple should have a 'certificate of essentiality' and a 'certificate of eligibility' issued by the appropriate authority.
  - o A **certificate of essentiality** will be issued upon fulfilment of the following conditions:
    - (i) a certificate of proven infertility of one or both members of the intending couple from a District Medical Board;
    - (ii) an order of parentage and custody of the surrogate child passed by a Magistrate's court; and
    - (iii) **insurance coverage** for a period of 16 months covering postpartum delivery complications for the surrogate.
  - o The **certificate of eligibility** to the intending couple is issued upon fulfilment of the following conditions:
    - (i) the couple being Indian citizens and **married for at least five years**
    - (ii) between 23 to 50 years old (wife) and 26 to 55 years old (husband)
    - (iii) they do not have any surviving child (biological, adopted or surrogate); this would not include a child who is mentally or physically challenged or suffers from life threatening disorder or fatal illness.
- **Eligibility criteria for surrogate mother:** To obtain a certificate of eligibility from the appropriate authority, the surrogate mother has to be:
  - o a close relative of the intending couple;
  - o a married woman having a child of her own;
  - o 25 to 35 years old;
  - o a **surrogate only once in her lifetime**; and
  - o possess a certificate of medical and psychological fitness for surrogacy.
  - o Further, the surrogate mother **cannot provide her own gametes** for surrogacy.
- **Registration of surrogacy clinics:** Surrogacy clinics cannot undertake surrogacy related procedures unless they are registered by the appropriate authority.
- **National and State Surrogacy Boards:** The central and the state governments shall constitute the National Surrogacy Board (NSB) and the State Surrogacy Boards (SSB), respectively.
- **Offences and penalties:** The offences under the Bill include:
  - o undertaking or advertising commercial surrogacy;
  - o exploiting the surrogate mother;
  - o abandoning, exploiting or disowning a surrogate child; and
  - o selling or importing human embryo or gametes for surrogacy.
  - o The penalty for such offences is imprisonment up to 10 years and a fine up to 10 lakh rupees.

**What are the concerns raised with regard to the act?**

- **Paternalistic:** The altruistic model expects a woman to go through the physical and emotional tolls of surrogacy free of cost and only out of compassion. Such an expectation is paternalistic, unrealistic, and patriarchal in its approach.
- **Exclusion:** The eligibility criteria for legally availing surrogacy excludes a chunk of society like unmarried females, LGBTQ+ persons, live-in couples, and single parents who wish to have surrogate child.
- **Autonomy of Woman:** The banning of commercial surrogacy moves from the rights-based approach to a needs-based approach, thus removing the women's autonomy to make their own reproductive decisions and right to parenthood.
- **Outright ban can be counter-productive:** Banning commercial surrogacy also denies a legitimate source of income of the surrogates, further limiting the number of women to willingly surrogate. Complete ban will further push these activities underground where women are more vulnerable to exploitation.
- **Limitations of Altruistic Surrogacy:** Having a relative as a surrogate mother may lead to emotional complications not only for the intending parents but also for the surrogate child post birth. Altruistic surrogacy also limits the option of the intending couple in choosing a surrogate mother as very limited relatives will be ready to undergo the process.
- **Children with Disability:** The Act considers having children with physical and special needs as childless. It further encourages considering surrogacy if the couple has a child with a life-threatening disorder. This clause directly violates the right of the children with the disability, thus denying them treatment with dignity.
- **Review and appeal procedure for surrogacy applications:** In order to initiate a surrogacy procedure, the surrogate mother and the intending couple are required to obtain certificates of eligibility and essentiality upon fulfilling various conditions from the relevant appropriate authorities. However, the Bill does not specify a time limit by which the authority will grant these certificates. Further, the Bill does not specify a review or appeal procedure in case the surrogacy applications are rejected.



## SECURITY ISSUES



### Armed Forces (Special Powers) Act (AFSPA), 1958

**In News:** Prime Minister of India indicated that operation of the Armed Forces (Special Powers) Act (AFSPA) may come to an end in the whole of the north-eastern region, if ongoing efforts to normalise the situation bear fruit.

- Recently, the Union Government has partially **withdrawn the AFSPA** from parts of three **Northeast states— Assam, Nagaland and Manipur**.
- Currently, AFSPA remains in force in parts of these three states as well as in parts of Arunachal Pradesh and Jammu & Kashmir.

#### What is AFSPA?

- A **colonial era legislation** that was enacted to quell the protests during **the Quit India movement**, the AFSPA was issued by way of four ordinances in 1947.
- The **ordinances were replaced by an Act in 1948** and the present law effective in the Northeast was introduced in Parliament in 1958
- The AFSPA gives **unfettered powers to the armed forces and the Central armed police forces deployed in “disturbed areas”**
- It allows them to **open fire, even causing death, against any person in contravention to the law or carrying arms and ammunition**.
- Also, it gives them powers to **arrest individuals without warrants**, on the basis of **“reasonable suspicion”**, and **search premises without warrants**.
- The law first came into effect in 1958 to deal with the uprising in the Naga Hills, followed by the insurgency in Assam.

#### Disturbed Areas:

- The Act was amended in 1972 and the powers to declare an area as **“disturbed”** were **conferred concurrently upon the Central government along with the States**.

#### Controversy around the Act

##### Human Rights Violations:

- The exercise of these extraordinary powers has often led to **fake encounters and other human rights violations by security forces**
- Example: **Custodial rape and killing of the Thangjam Manorama** by the Assam rifles in 2004

##### Misuse of Absolute Power:

- The power to shoot on sight **violates the fundamental right to life**, making the soldier on the ground the judge of the value of different lives and people the mere subjects of an officer's discretion

##### Violates Fundamental Rights:

- The power of arbitrary arrest and detention given to the armed forces **goes against the fundamental right vested in Article 22**

##### Immunity against any Punitive Action

- The act provides immunity to the armed forces **against prosecution, suit or another legal proceeding**, which shall be instituted only with the previous sanction of the central government.

##### Supreme Court Views on the Act

- The Supreme Court has **upheld the constitutionality of AFSPA in a 1998 judgment** (Naga People's Movement of Human Rights v. Union of India).

##### Recommendations of Justice Jeevan Reddy Committee:



In November 2004, the Central government appointed a **five-member committee headed by Justice B P Jeevan Reddy to review the provisions of the act in the northeastern states.**

**The committee recommended that:**

- AFSPA should be **repealed and appropriate provisions** should be inserted in the Unlawful Activities (Prevention) Act, 1967
- The **Unlawful Activities Act** should be modified to clearly specify the powers of the armed forces and paramilitary forces and Grievance cells should be set up in each district where the armed forces are deployed.

**Current Status:** There is **gradual reduction in areas under the Act**

**Reasons**

- **Improvement in the security** situation
- **An increase in development activity** in the region
- On the political side much headway has been made in moving towards **a political solution like peace accords, ceasefire and creation of sub-regional administrative arrangements.**

**Way forward**

- The AFSPA has become a symbol of oppression in the areas it has been enacted. Hence the government needs to address the affected people and reassure them of favourable action.
- The armed forces must build the necessary trust amongst the locals to ensure their support in countering insurgency.
- The state bureaucracy, army, and the grass-root civil society organization should come together in the developmental activities of the state

## Sikh Separatism

**Context:** Symbols of Sikh separatism that appeared at the Himachal Pradesh Assembly complex in Dharamshala suggest that forces promoting it are active and capable of mischief.

**What were the recent events that has triggered Khalistan issue?**

- Purported flags of imaginary Khalistan were put up on the gate of the complex, and slogans scrawled on the walls.
- The announcement of June 6 as Khalistan “referendum day” made the State police seal the border.
- A U.S. based Khalistani separatist has been charged in Himachal Pradesh under the Unlawful Activities Prevention Act (UAPA).
- On the same day, the police in Punjab said they had averted a terror attack after arresting two men, said to be Khalistani sympathisers, with explosives.

**What is Khalistan movement?**

- The Khalistan movement is a Sikh separatist armed movement seeking to create a homeland for Sikhs by establishing a sovereign state, called Khalistān in the Punjab Region. Such a state existed in Punjab from 1709 to 1849.

**What was the Anandpur Sahib Resolution?**

- During 1970s a section of Akalis (A Political party) began to **demand political autonomy for the region.**
- This was reflected in resolution passed at their conference at Anandpur Sahib in 1973.

- After the Akali dal government had been dismissed in 1980, the Akali Dal launched a movement on the question of the distribution of water between Punjab and its neighboring States.
- A section of the religious leaders raised the question of **autonomous Sikh identity**.
- The more extreme elements started advocating **secession from India and the creation of 'Khalistan'**.
- The Anandpur Sahib resolution found an admirer in Jarnail Singh Bhindranwale – a religious scholar who'd been travelling across Punjab advocating a **return to the Khalsa** or a more orthodox form of Sikhism.

#### What are the events which intensified Khalistan movement?

- Soon, the leadership of the movement passed from the moderate Akalis to the extremist elements and took the **form of armed insurgency**.
- These militants made their headquarters inside the Sikh holy shrine, the Golden Temple in Amritsar, and turned it into an armed fortress.
- In June 1984, the Government of India carried out '**Operation Blue Star**', code name for army action in the Golden Temple.
- In this operation, the Government could **successfully flush out the militants**, but it also damaged the historic temple and deeply **hurt the sentiments of the Sikhs**.
- While the entire country was shocked by this development, in Delhi and in many parts of northern India **violence broke out against the Sikh community**.
- Though religious identities continue to be important for the people, politics has gradually moved back along secular lines

#### What is present status of the movement?

- At the present, Khalistan movement is a dormant movement in India.
- It does not hold much traction in the urban or local populace of Punjab.
- But the movement gets ideological support from Sikhs living in Canada, UK or USA.
- They pump money, ideological support to the struggle, ISI of Pakistan is still pumping money and effort in reviving the movement.
- Though isolated and feeble, Sikh separatism continues to flicker. It must serve as a constant reminder for social cohesion and impartial state policy.



## PRATICE MCQ'S



**Q.1)** With reference to sixth schedule, consider the following statements

1. Tribal areas of state of Assam, Tripura, Manipur and Mizoram are administered under the provisions of sixth schedule
2. All the members of the Autonomous District Council are elected on the basis of adult franchise
3. No other court except Supreme Court has the jurisdiction over the cases of District and Regional council

Choose the **incorrect** statements:

- A. 1 and 2
- B. 2 only
- C. 3 only
- D. 1, 2 and 3

**Q.2)** Consider the following statements

1. Anabolic steroids are lab-made versions of the male hormone testosterone
2. Corticosteroids are lab-made steroids that mimic the action of the hormone called cortisol
3. While Anabolic steroids are used to increase muscle mass cortico steriods help fight inflammations and several autoimmune diseases

Choose the correct statements:

- A. 1 and 2
- B. 2 and 3
- C. 1 and 3
- D. 1, 2 and 3

**Q.3)** Consider the following statements about e – shram portal

1. It aims to create national database of unorganized and organized workers
2. It is being implemented by Minister of Labour and Employment

3. There is a provision for accidental insurance of 2 lakhs for registered beneficiary

Choose the correct statements:

- A. 1 and 2
- B. 2 and 3
- C. 1, 2 and 3
- D. 1 and 3

**Q.4)** With reference to Basavanna, medieval India social reformers consider the following statements

1. He is the founder of the sect Lingayats
2. He was contemporary of the Vijayanagara King Krishna Deva Raya
3. His literary works are popularly known as Vachanaas

Choose the correct statements:

- A. 1, 2 and 3
- B. 2 and 3
- C. 1 and 3
- D. 1 only

**Q.5)** Which of the following is **not** the provision of Representation of People's Act, 1951?

- A. Registration of political parties
- B. Qualifications and disqualifications for membership of the Houses
- C. Qualifications of the Voters
- D. Administrative machinery for conducting elections

**Q.6)** Consider the following statements about Project 75I

1. Under this project, the Indian Navy intends to acquire six nuclear powered submarines
2. It is being developed under a strategic partnership model to boost indigenous defence manufacturing.

Choose the **incorrect** statements:

- A. 1 only
- B. 2 only

- C. Both 1 and 2
- D. Neither 1 nor 2

**Q.7)** With reference to Lokpal, consider the following statements

1. It is a constitutional body
2. Only the former Chief Justice of India can become the chairperson of the Lokpal
3. The term of office for Lokpal Chairman and Members is 5 years or till the age of 70 years

Choose the incorrect statements:

- A. 1 only
- B. 1, 2 and 3
- C. 2 only
- D. 1 and 2

**Q.8)** The World Press Freedom Index recently in the news is published by?

- A. International Federation of Journalists
- B. Amnesty International
- C. Reports Without Borders
- D. UN Human Rights and UNESCO

**Q.9)** With references to pardoning power of the President, consider the following statements

1. The power of the President to grant pardon extends in cases where the punishment or sentence is by a Court Martial
2. The President can grant pardon in all cases where the sentence given is the sentence of death
3. The President cannot exercise his power of pardon independent of the government

Choose the correct statements:

- A. 1 and 2
- B. 2 and 3
- C. 1 and 3
- D. 1, 2 and 3

**Q.10)** Consider the following statements

1. Supreme Court of India derives its powers to use Sealed Cover Jurisprudence under the Supreme Court Rules

2. In any case the court cannot allow access to the contents of such information to any party including opposite party

Choose the correct statements:

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**Q.11)** Which of the following leads to cost-push inflation?

1. Hoarding and Speculation of commodities
2. Deficit financing by the government
3. Interest rates increased by RBI

Choose the correct code:

- A. 1 only
- B. 1 and 2
- C. 1, 2 and 3
- D. 1 and 3

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

1. Among Nordic countries Norway and Finland shares borders with Russia
2. North Sea is completely bound by nordic countries
3. India and Sweden jointly started a global initiative LeadIT to help world's heaviest greenhouse gas emitting industries towards the low-carbon economy

Choose the correct statements

- A. 1 and 2
- B. 1, 2 and 3
- C. 1 and 3
- D. 3 only

**Q.13)** With reference to Delimitation Commission, consider the following statements

1. It is a 3 member permanent body formed by the an Act of parliament
2. Delimitation Commissions had been set up four times since independence
3. The Commission's orders have the force of law and cannot be questioned by any court

Choose the correct statements:

- A. 1, 2 and 3
- B. 1 and 2



- C. 2 and 3
- D. 1 and 3

**Q.14)** Consider the following statements

1. India is experiencing steady agricultural trade surplus for past five years
2. For the fiscal year 2021-22 export of non basmati rice is more than export of basmati rice

Choose the incorrect statements

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**Q.15)** Consider the following statements

1. Collegium System of Supreme Court derives its constitutional mandate under Article 271 of the Indian Constitution
2. Along with appointments the collegium also handles transfer of judges of the higher judiciary of India

Choose the correct statements:

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**Q.16)** Consider the following statements about National Family Health Survey

1. NFHS is conducted once in every five years
2. According NFHS - 5, both rural and urban areas have achieved 100% institutional deliveries
3. According NFHS - 5, the prevalence of obesity at national level has increased for both men and women

Choose the **incorrect** statements:

- A. 1, 2 and 3
- B. 2 only
- C. 1 and 3
- D. 1 and 2

**Q.17)** Consider the following statements

1. SEBI is a quasi-legislative and quasi-judicial body

2. SEBI Chairman has the authority to order search and seizure operations
3. Securities Appellate Tribunal (SAT) hear and dispose of appeals against orders passed by the SEBI

Choose the correct statements:

- A. 1 only
- B. 1 and 3
- C. 1, 2 and 3
- D. 3 only

**Q.18)** Article 239AA of Indian Constitution is related to?

- A. Special Status of Union Territory Delhi
- B. Legislative assembly of Puducherry
- C. Free and fair election by Election Commission of India
- D. Original Jurisdiction of Supreme Court

**Q.19)** Arrange the following sites of IVC, from north to south

1. Dholavira
2. Lothal
3. Rangpur
4. Alamgirpur

Choose the correct code:

- A. 1-2-3-4
- B. 4-2-1-3
- C. 4-1-2-3
- D. 4-3-2-1

**Q.20)** Consider the following statements about Monkeypox

1. It is a zoonotic disease
2. It is caused by bacteria of the genus Leptospira
3. There is no human to human transmission

Choose the **incorrect** statements:

- A. 1, 2 and 3
- B. 2 only
- C. 1 only
- D. 2 and 3

**Q.21)** Consider the following statements

1. Pangolins are the only known mammals with protective keratin scales covering their skin
2. Both Indian and Chinese pangolins are found in India
3. While IUCN status of Indian pangolin is Endangered, Chinese pangolin is critically endangered

Choose the correct statements:

- A. 1, 2 and 3
- B. 1 only
- C. 1 and 2
- D. 3 only

**Q.22)** Consider the following statements

1. Under the Aadhar Act 2016, a judge of a High Court can order the disclosure of information on identity in certain cases
2. No Aadhaar data can be shared by any individual or entity with anyone without the consent of the resident or holder of the Aadhaar

Choose the correct statements:

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**Q.23)** With references to MPLADS scheme, consider the following statements

1. It is a Centrally Sponsored Scheme
2. MPLADS funds are non-lapsable funds
3. Nominated Members of both the Rajya Sabha and Lok Sabha can recommend works anywhere in the country

Choose the **incorrect** statements:

- A. 1 only
- B. 1 and 2
- C. None
- D. 2 only

**Q.24)** With reference to Bond yield, consider the following statements

1. The bond prices and yields move in opposite directions

2. Lower yields reduces borrowing costs for the government
3. RBI controls the bond yield by conducting open market operations

Choose the correct statements:

- A. 1 and 2
- B. 1 and 3
- C. 1, 2 and 3
- D. 2 and 3

**Q.25)** Consider the following statements

1. Under Article 29 grants protection to both religious as well as linguistic minorities
2. The protection under Article 30 extend to any section of citizens as in Article 29

Choose the correct statements:

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**Q.26)** Which of the following statements are true, with reference to NFHS – 5?

1. According to the survey, over half the population of India is below 30
2. There has been dip in under 15 population in NFHS - 5 compared to NFHS - 4
3. One-third of the Indian households are headed by Female

Choose the correct code:

- A. 1 only
- B. 2 and 3
- C. 1 and 2
- D. 1, 2 and 3

**Q.27)** Which of the following factors affect the exchange rate of rupee currency?

1. Raise in interest rate by US federal Bank
2. Raise in crude oil prices
3. Outflow of foreign currency

Choose the correct code:

- A. 1, 2 and 3
- B. 2 and 3
- C. 1 and 2
- D. 2 only

**Q.28)** Section 375 of Indian Penal Code, recently in news is related to?

- Sedition law
- Marital rape
- Harassment of Married woman by her husband and in-laws
- Prosecution for offenses against marriage

**Q.29)** With references to Foreign Contribution (Regulation) Act (FCRA), 2020, consider the following statements

- The Act bars public servants from receiving foreign contributions
- Under the Act, organizations are required to register themselves every five years
- The Act states that organization cannot use more than 30% of total foreign funds received for administration purpose

Choose the correct statements:

- 1, 2 and 3
- 1 and 2
- 2 and 3
- 1 and 3

**Q.30)** Justice J S Verma Committee is related to?

- Electoral reforms
- Criminal Law reforms
- Lateral entry to Civil services
- Centre-State Relations

**Q.31)** Consider the following statements

- The Constitution of India states that all proceedings before the Supreme Court and in every High Court shall be conducted in English
- The governor of a state, with consent of the President can authorize the use of Hindi or Other official language in proceedings in the High Court

Choose the correct statements:

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

**Q.32)** With reference to BrahMos Missile, consider the following statements

- BrahMos is an indigenously manufactured hypersonic cruise missile
- It can be launched from land, air, and sea
- It operates on the Fire and Forget principle
- It is a two-stage missile

Choose the correct code:

- 1, 2 and 4
- 1, 2 and 3
- 2, 3 and 4
- All

**Q.33)** With reference to functions of Election Commission of India, Consider the following statements

- It grants recognition to political parties and allot election symbols to them
- Monitors strict observance of a Model Code of Conduct
- Power to disqualify a candidate who has failed to lodge an account of his election expenses within the time and manner prescribed

Choose the correct statements:

- 1, 2 and 3
- 1 and 2
- 1 and 3
- 2 and 3

**Q.34)** Consider the following statements about Geosynchronous Satellite Launch Vehicle GSLV Mk III

- It is a three-stage heavy lift launch vehicle developed by ISRO
- The Upper stage of GSLV Mk III is known as the cryogenic stage
- The Gaganyaan spacecraft will be placed in a Geosynchronous Transfer Orbit (GTO) by GSLV Mk III

Choose the correct statements:

- 1 and 3
- 2 only
- 1, 2 and 3
- 1 and 2

**Q.35)** Consider the following statements

1. The Constitution empowers the President and the Governor to remove a government employee without an enquiry under interest of the security of the State
2. The protective safeguards given under Article 311 are applicable to both Civil servants and defense personnel

Choose the correct code:

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**Q.36)** With reference to mRNA vaccine, consider the following statements

1. mRNA vaccines trick the body into producing some of the viral proteins itself
2. These viral protein assemble to form a virus and triggers body's defense mechanism
3. mRNA vaccines cannot be used to treat genetic diseases

Choose the **incorrect** statements:

- A. 2 only
- B. 2 and 3
- C. 3 only
- D. None

**Q.37)** With reference to RNA Granules, consider the following statements

1. RNA granules are found in the cytoplasm of the cell
2. RNA granules are covered and confined by a membrane
3. RNA granules help in the process of shutting down protein production

Choose the correct statements:

- A. 1 and 2
- B. 1 and 3
- C. 2 and 3
- D. 1, 2 and 3

**Q.38)** Consider the following statements about Pullulan polymer

1. It is a biomaterial secreted by the fungus *Aureobasidium pullulans*
2. It's been used for drug and gene delivery in the biomedicine sector

Choose the incorrect statements:

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**Q.39)** Consider the following statements

1. Foreigners' Tribunal is a quasi-judicial body
2. District magistrates in all States and Union Territories is empowered to set up Foreigners' Tribunal
3. Only state administration could move the Tribunal against a suspect

Choose the correct statements:

- A. 1 and 2
- B. 1, 2 and 3
- C. 2 and 3
- D. 1 and 3

**Q.40)** In the context of Repurchase agreement between bank and RBI, consider the following statements:

1. It is the rate at which the central bank of a country (Reserve Bank of India in case of India) lends money to commercial banks.
2. In India it is the primary tool in the RBI's Monetary and Credit Policy.
3. In this RBI lends it for long term money to banks

Which of the above statements is/are correct?

- A. 1 and 3 only
- B. 3 only
- C. 2 and 3 only
- D. 1 and 2 only

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

1. Walking inflation is the one which hovers between 3-10% a year and is harmful to the economy because it heats up economic growth too fast



2. During Galloping inflation money loses value so fast that business and employee income can't keep up with costs and prices
3. Stagflation is when economic growth is stagnant but there still is price inflation

Which of the above statements is/are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. All of the above

**Q.42) Which of the following phenomena contradicts the economic theory of Philips curve?**

- A. Deflation
- B. Re-inflation
- C. Stagflation
- D. Core inflation

**Q.43) Consider the following statements**

1. Cost-push inflation occurs due to increases in the cost of wages and raw materials while demand for the affected product remaining constant
2. Inflation can erode a consumer's purchasing power
3. Demand-pull inflation is characterized by "too many rupees chasing too few goods"

Which of the above statements is/are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. All of the above

**Q.44) Which of the following can be the causes for demand-pull inflation?**

1. A growing economy
2. A low unemployment rate
3. Increased Government spending
4. Inflation expectations
5. Asset inflation

Choose the correct answer using the codes given below

- A. 1, 2, 3 and 5 only
- B. 2, 3, 4 and 5 only
- C. 1, 3, 4 and 5 only
- D. All of the above

**Q.45) Which of the following is considered to be the advanced form of "mixed inflation"?**

- A. Mark-up inflation
- B. Stagflation
- C. Dis-inflation
- D. Hyperinflation

**Q.46) Which of the following statements are correct regarding RFID tags?**

1. These tags contain electronically stored information.
2. Like a barcode, the tag should be within the line of sight of the reader
3. RFID provides a way for organizations to identify and manage stock, tools and equipment (asset tracking), etc. without manual data entry.

Select the code from following:

- A. 1,2 and 3
- B. 2 and 3
- C. 1 and 3
- D. 1 and 2

**Q.47) Consider the following statements:**

1. Gautama Buddha is believed to have delivered his last sermon and attained 'Mahaparinirvana' or salvation in Kushinagara
2. Gautama Buddha propounded the philosophy of AshtangikaMarga (eightfold path).
3. Lumbini in Bihar is the birthplace of Gautam Buddha.

Which of the above is or are correct?

- A. 1 and 2 only
- B. 2 only
- C. 2 and 3 only
- D. None of the above

**Q.48) Consider the following statements regarding 'Non-Banking Financial Companies (NBFC)'**

1. None of the NBFCs can accept Time deposits.

2. NBFCs can invest the money in Share Market, unlike banks which are not allowed to do so.
3. CRR does not apply to any NBFC while SLR applies only to deposit-taking NBFC.

Which of the statements given above is/are correct?

- A. 1 and 2 only
- B. 1 and 3 only
- C. 2 and 3 only
- D. All of the above

**Q.49)** Infrastructure Leasing & Financial Services (IL&FS) was recently in the news. Consider

the following statements regarding IL&FS

1. It is a Systemically Important Non-Deposit Core Investment Company (CIC-ND-SI).
2. It is entirely owned by the Government of India.

Which of the statements given above is/are correct?

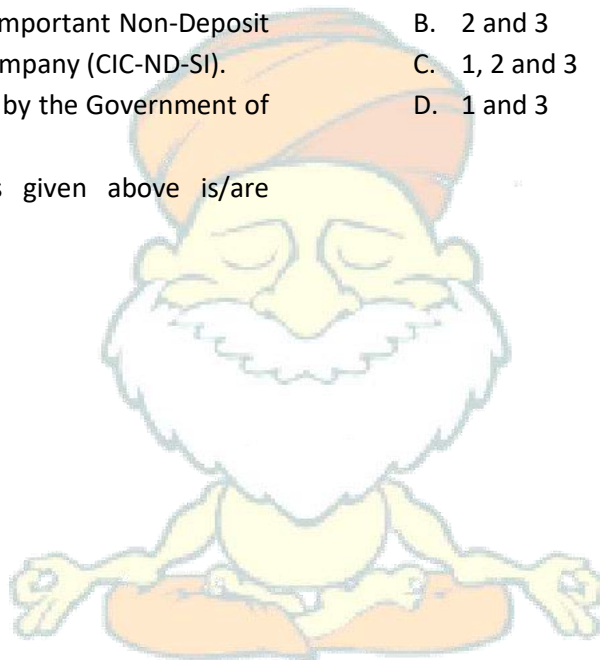
- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**Q.50)** Consider the following statements about GST Council

1. It is a constitutional body under Article 279A
2. It is chaired by the Union Finance Minister
3. In making decision the vote of the Central Government shall have a weightage of one third of the total votes cast

Choose the correct statements:

- A. 1 and 2
- B. 2 and 3
- C. 1, 2 and 3
- D. 1 and 3





## MCQS SOLUTIONS



1	D	21	A	41	D
2	D	22	C	42	C
3	B	23	A	43	D
4	C	24	C	44	D
5	C	25	A	45	A
6	A	26	C	46	C
7	D	27	A	47	C
8	C	28	B	48	C
9	D	29	B	49	A
10	A	30	C	50	C
11	D	31	A		
12	C	32	C		
13	C	33	A		
14	A	34	D		
15	B	35	A		
16	D	36	B		
17	C	37	B		
18	A	38	C		
19	C	39	A		
20	D	40	D		



**UPSC 2023**

# TLP CONNECT

**Integrated Prelims cum Mains Test Series**

**Early bird  
OFFER**

**10% Till July 3<sup>rd</sup>**

**Additional 10% off  
for Old Subscribers**

**ONLINE & OFFLINE**



**69 Prelims  
Tests**



**68 Mains  
Tests**



**1:1  
Mentorship**



**Babapedia  
(For Current Affairs)**



**Discussion classes  
after Every Mains Test**



**Approach Paper, Enriched  
Synopsis & Ranking**



**Starts July 11<sup>th</sup>**

**REGISTER NOW**