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Custodial Violence is Biggest Threat to Human Rights: CJI

Why in News

Recently, the Chief Justice of India (CJI) noted that police stations pose the highest threat to human rights and dignity as custodial torture/violence and police atrocities still prevail despite constitutional guarantees.

- He was speaking at the launch of a legal service mobile application and the vision and mission statement of National Legal Services Authority’s (NALSA) legal services.

Key Points

- Vision & Mission Statement:
  - It encapsulates the vision of NALSA to promote an inclusive legal system and to ensure fair and meaningful justice to the marginalized and disadvantaged sector.
  - It further promotes the mission of NALSA to legally empower the marginalized and excluded groups of the society by providing effective legal representation, legal literacy & awareness to bridge the gap between the legally available benefits and the entitled beneficiaries.

- Legal Services Mobile Application:

   - It was constituted under the Legal Services Authorities Act, 1987 which came into force in November, 1995 to establish a nationwide uniform network for providing free and competent legal services to the weaker sections of the society.
   - CJI is the Patron-in-Chief and the second senior most Judge of the Supreme Court of India is the Executive Chairman of the Authority.
   - Article 39 A of the Constitution provides for free legal aid to the poor and weaker sections of the society, to promote justice on the basis of equal opportunity.
     - Article 14 and Article 22 (1), obligates the State to ensure equality before law.
   - It can be noted that the role played by NALSA and its networks is very much relevant to achieving the Sustainable Development Goal-16, which seeks to promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.
     - It incorporates features including seeking legal assistance, legal advice, and other grievances.
     - Application tracking facilities, and seeking clarifications are some additional features available to both Legal Aid beneficiaries and Legal Services Authorities.
Beneficiaries can also apply for pre-institution mediation through the app. Victims can also file an application for Victim Compensation with the App.

**Custodial Violence**

### Related Data:
- According to National Crime Records Bureau (NCRB) data, between 2001 and 2018, only 26 policemen were convicted of custodial violence despite 1,727 such deaths being recorded in India.
  - Only 4.3% of the 70 deaths in 2018 were attributed to injuries during custody due to physical assault by police.
- Except in Uttar Pradesh, Madhya Pradesh, Chhattisgarh and Odisha, no policeman was convicted for such deaths across the country.
- Apart from custodial deaths, more than 2,000 human rights violation cases were also recorded against the police between 2000 and 2018. And only 344 policemen were convicted in those cases.

### Major Reasons:
- **Lack of Legal Representation:**
  - Lack of effective legal representation at police stations is a huge detriment to arrested or detained persons. The first hours of arrest or detention often decide the fate of the case for the accused.
- **Lengthy Judicial Processes:**
  - Lengthy, expensive formal processes followed by courts dissuade the poor and the vulnerable.
- **Absence of Strong Legislation:**
  - India does not have an anti-torture legislation and is yet to criminalise custodial violence, while action against culpable officials remains illusory.
- **Institutional Challenges:**
  - The entire prison system is inherently opaque giving less room to transparency.
  - India also fails in bringing the much desired Prison Reforms and prisons continue to be affected by poor conditions, overcrowding, acute manpower shortages and minimal safety against harm in prisons.
- **Excessive Force:**
  - The use of excessive force including torture to target marginalised communities and control people participating in movements or propagating ideologies which the state perceives as opposed to its stature.

### Not Adhering to International Standard:
- Although India has signed the United Nations Convention against Torture in 1997 its ratification still remains.
- While Signing only indicates the country’s intention to meet the obligations set out in the treaty, Ratification, on the other hand, entails bringing in laws and mechanisms to fulfil the commitments.

### Constitutional and Legal Provisions:
- Protection from torture is a fundamental right enshrined under Article 21 (Right to Life) of the Indian constitution.
- The right to counsel is also a fundamental right under Article 22(1) of the India constitution.
- Section 41 of Criminal Procedure Code (CrPC) was amended in 2009 to include safeguards under 41A, 41B, 41C and 41D, so that arrests and detentions for interrogation have reasonable grounds and documented procedures, arrests are made transparent to family, friends and public, and there is protection through legal representation.

### SC Judgement on Preventive Detention

#### Why in News

Recently, the Supreme Court (SC) ruled that a preventive detention order can only be passed if the detenu is likely to adversely affect the maintenance of public order.

- The SC also gave direction to governments and to other courts, for dealing with detention under preventive detention.

#### Key Points

- **Preventive Detention for Public Order:** The court held that it cannot seriously be disputed that the Detenu may be a ‘white collar offender’ and if set free, will continue to cheat gullible persons.
- **However, a Preventive Detention Order can only be passed if his activities adversely affect or are likely to adversely affect the maintenance of public order.**
Clarity on the Term ‘Public Order’: Preventive detention is a necessary evil only to prevent public disorder, but a liberal meaning cannot be given to the expression public order in the context of preventive detention statute.

- Contravention of law, such as indulging in cheating or criminal breach of trust, certainly affects ‘law and order’.
- However, before it can be said to affect ‘public order’, it must affect the community or the public at large.

Direction to the Government: The State should not arbitrarily resort to “preventive detention” to deal with all and sundry “law and order” problems, which could be dealt with by the ordinary laws of the country.

Direction to the Courts: One of the questions the courts must ask in deciding the legality under a preventive detention should be:

- Was the ordinary law of the land sufficient to deal with the situation? If the answer is in the affirmative, the detention order will be illegal.
- For example, the court said two drunks fighting on a road was a law and order problem, and not ‘public disorder’. The solution here was not preventive detention.

Preventive Detention Undermines Liberty: Liberty of a citizen is a most important right won by our forefathers after long, historical and arduous struggles.
- If the power of preventive detention is not narrowed down to limits, the right to liberty will become nugatory (of no value or importance).
- Therefore, Preventive detention must fall within the ambit of Article 21 (due process of law) and read with Article 22 (safeguards against arbitrary arrest and detention) and the statute in question.

Preventive Detention

- Constitutional Provisions:
  - Article 22 grants protection to persons who are arrested or detained. Detention is of two types, namely, punitive and preventive.
    - Punitive detention is to punish a person for an offence committed by him after trial and conviction in a court.
    - Preventive detention, on the other hand, means detention of a person without trial and conviction by a court.
  - Article 22 has two parts—the first part deals with the cases of ordinary law and the second part deals with the cases of preventive detention law.

### Rights Given Under Punitive Detention

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<th>Rights Given Under Preventive Detention</th>
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<td>Right to be informed of the grounds of arrest.</td>
<td>The detention of a person cannot exceed three months unless an advisory board reports sufficient cause for extended detention.</td>
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<tr>
<td>Right to consult and be defended by a legal practitioner.</td>
<td>The grounds of detention should be communicated to the detenu.</td>
</tr>
<tr>
<td>Right to be produced before a magistrate within 24 hours, excluding the journey time.</td>
<td>However, the facts considered to be against the public interest need not be disclosed.</td>
</tr>
<tr>
<td>Right to be released after 24 hours unless the magistrate authorises further detention.</td>
<td>The detenu should be afforded an opportunity to make a representation against the detention order.</td>
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<tr>
<td>These safeguards are not available to an enemy alien.</td>
<td>This protection is available to both citizens as well as aliens.</td>
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Note:

- The 44th Amendment Act of 1978 has reduced the period of detention without obtaining the opinion of an advisory board from three to two months. However, this provision has not yet been brought into force, hence, the original period of three months still continues.
- The preventive detention laws made by the Parliament are:
- **National Security Act (NSA), 1980.**
- Prevention of Blackmarketing and Maintenance of Supplies of Essential Commodities Act (PBMSeca), 1980.
- Prevention of Illicit Traffic in Narcotic Drugs and Psychotropic Substances Act (PITNDPSA), 1988.

**Issues related to Preventive Detention Laws in India:**
- No democratic country in the world has made preventive detention as an integral part of the Constitution as has been done in India.
- The governments sometimes use such laws in an extra-judicial power. Also, there remains a fear of arbitrary detentions.

## Supreme Court on Criminalisation of Politics

### Why in News
Recently, the Supreme Court in the two different judgements has raised concerns about the menace of criminalisation in politics.

- In one case, it found nine political parties guilty of contempt for not following in letter and spirit its February 13, 2020 direction.

- In another case, it has issued directions that no criminal case against MPs or MLAs can be withdrawn without an approval of the high court of the concerned state.

### Supreme Court cracks down
The Supreme Court took up the issue of criminalisation in Indian politics in two separate cases on Tuesday. Key takeaway:

- **CASES AGAINST POLITICIANS:** State courts cannot withdraw criminal cases against legislators without permission by the high courts, the court ruled.

- **PARTIES PUNISHED:** Nine parties – including the BJP, Congress, SP and RJD – held guilty of contempt for incomplete disclosure of candidates ahead of 2020 Bihar elections. Eight of them also fined.

---

### Case I: Political Parties Parties Penalised for Contempt:
- **February 13, 2020 Order:**
  - The February 2020 order required political parties to publish details of criminal cases against its candidates on their websites, a local vernacular newspaper, national newspaper and social media accounts.
  - This is to be done within 48 hours of candidate selection or not less than two weeks before the first date for filing of nominations, whichever is earlier.

### Supreme Court’s Directive:
- The court took a lenient view of the matter, as it was the first elections (Bihar assembly Elections 2020) conducted after issuance of its directions.
- Directed political parties to have a caption “candidates with criminal antecedents candidates” on their homepages.
- It asked Election Commission of India (ECI) to create a dedicated mobile application containing information published by candidates regarding their criminal antecedents.
- The court appealed to the conscience of the lawmakers to come up with a law tackling the criminalization of politics.

### Case II: Approval of High Court for Withdrawing Criminal Cases against MPs/MLAs:
- **Background:**
  - The Bench was hearing a pending PIL (Public Interest Litigation) seeking establishment of fast-track courts for cases against legislators.
  - In November 2017, the Supreme Court had ordered setting-up of Special Courts in each state to try the pending cases.
  - Accordingly, 12 such courts were set up across the country.

### Supreme Court’s Directive:
- Examine the withdrawals, whether pending or disposed of since last year.
- High court Chief Justices to constitute Special Benches to monitor the progress of criminal cases against sitting and former legislators.
- Judicial officers presiding over Special Courts or CBI Courts involving prosecution of MPs or MLAs shall not be transferred until further orders.
• Asked all the high courts to furnish details of posting of judges and the number of pending and disposed cases before them.

○ Significance of the Judgment:
• It was a move that significantly clips the powers of the state governments at a time when the top court has expressed grave concern over the criminalisation of politics.

○ Section 321 of the Code of Criminal Procedure, 1973:
• Under this provision, the public prosecutor or assistant public prosecutor may, with the consent of the court, withdraw from the prosecution of a case at any time before the judgment is pronounced.

■ Several states have withdrawn cases against legislators, under this section.

Criminalisation of Politics

➢ About:
• It means the participation of criminals in politics which includes that criminals can contest in the elections and get elected as members of the Parliament and the State legislature.

• It takes place primarily due to the nexus between politicians and criminals.

➢ Reasons:
• Lack of Political Will:
  • In spite of taking appropriate measures to amend the Representation of the People Act, 1951 there has been an unsaid understanding among the political parties which deters Parliament to make strong law curbing criminalisation of politics.

• Lack of Enforcement:
  • Several laws and court judgments have not helped much, due to the lack of enforcement of laws and judgments.

• Narrow Self-interests:
  • Publishing of the entire criminal history of candidates fielded by political parties may not be very effective, as a major chunk of voters tend to vote through a narrow prism of community interests like caste or religion.

• Use of Muscle and Money Power:

• Candidates with serious records seem to do well despite their public image, largely due to their ability to finance their own elections and bring substantive resources to their respective parties.

• Also, sometimes voters are left with no options, as all competing candidates have criminal records.

➢ Effects:
• Against the Principle of Free and Fair Election:
  • It limits the choice of voters to elect a suitable candidate.
  • It is against the ethos of free and fair election which is the bedrock of a democracy.

• Affecting Good Governance:
  • The major problem is that the law-breakers become law-makers, this affects the efficacy of the democratic process in delivering good governance.

  • These unhealthy tendencies in the democratic system reflect a poor image of the nature of India's state institutions and the quality of its elected representatives.

• Affecting Integrity of Public Servants:
  • It also leads to increased circulation of black money during and after elections, which in turn increases corruption in society and affects the working of public servants.

• Causes Social Disharmony:
  • It introduces a culture of violence in society and sets a bad precedent for the youth to follow and reduces people's faith in democracy as a system of governance.

Landmark Decisions in Decriminalising Politics

➢ In 2002, the Supreme Court, in Association for Democratic Reforms (ADR) v. Union of India, mandated the disclosure of information relating to criminal antecedents, educational qualification, and personal assets of a candidate contesting elections.

➢ The Supreme Court in the Lily Thomas v. Union of India (2013) case, struck down as unconstitutional Section 8(4) of the Representation of the People Act that allowed convicted lawmakers a three-month period for filing appeal to the higher court and to get a stay on the conviction and sentence.
In People’s Union for Civil Liberties v. Union of India (2013), the SC recognised negative voting as a constitutional right of a voter and directed the Government to provide the ‘NOTA’ option in electronic voting machines.

In Public Interest Foundation and Ors. v Union of India (2014) based on recommendations made by the Law Commission in its 244th report, the SC had ordered that trials, in relation to sitting MPs and MLAs be concluded within a year of charges against them being framed.

The Supreme Court’s decision on information disclosure (Lok Prahari v. Union of India, 2018) paves a way for future constitutional interventions in India’s political party funding regime, including the scheme of electoral bonds.

Major Administrative Reforms

Why in News

Recently, the Union Government gave the information on Major Administrative Reforms which were introduced in recent years and emphasised the importance of these reforms in making governance more accessible.

These reforms aim to encourage greater efficiency, transparent and corruption free governance, accountability and reduce scope for discretion. The Government follows the maxim “Minimum Government - Maximum Governance”.

Key Points

- Mission Karmayogi:
  - This is a National Programme for Civil Services Capacity Building (NPCSCB). It is a comprehensive reform of the capacity building apparatus at individual, institutional and process levels for efficient public service delivery.
  - It is aimed at building a future-ready civil service with the right attitude, skills and knowledge, aligned to the vision of New India.
  - The capacity building will be delivered through iGOT-Karmayogi digital platform, with content drawn from global best practices.

- Lateral Entry:
  - Lateral entry means when personnel from the private sector are selected to an administrative post of the government despite them not being selected in or being part of a bureaucratic setup.
  - This is significant because contemporary times require highly skilled and motivated individuals at the helm of administrative affairs, without which public service delivery mechanisms do not work smoothly.
  - Lateral Entry helps in bringing the values of economy, efficiency, and effectiveness in the Government sector. It will help in building a culture of performance within the Government sector.

- e-Samiksha:
  - A real time online system for monitoring and follow up action on the decisions taken by the Government at the Apex level in respect of implementation of important Government programmes / projects.
  - It is a digital monitor for bureaucracy to rein in slackers.
  - Also, the government has been taking an intensive review for weeding out inefficient and Officers of doubtful integrity by premature retirement.

- e-Office:
  - e-Office Mission Mode Project (MMP) has been strengthened for enabling Ministries/Departments to switch over to paperless office and efficient decision making.

- Citizen Charters:
  - Government has mandated Citizen Charters for all Ministries/Departments which are updated and reviewed on a regular basis.
  - It is a written document that spells out the service provider’s efforts taken to focus on their commitment towards fulfilling the needs of the citizens/customers.

- Good Governance Index 2019:
  - It assesses the Status of Governance and impact of various interventions taken up by the State Government and Union Territories (UTs).
  - The objectives of GGI are to provide quantifiable data to compare the state of governance in all States and UTs, enable States and UTs to formulate and implement suitable strategies for improving governance and shift to result oriented approaches and administration.
  - It has been launched by the Ministry of Personnel, Public Grievances & Pensions.
National Conference on e-Governance:
- It provides a platform for the government to engage with experts, intellectuals from industry and academic institutions to exchange experiences relating to e-Governance initiatives.
- In 2020, the 23rd National Conference on e-Governance was organised by the Department of Administrative Reforms and Public Grievances (DARPG) along with the Ministry of Electronics and Information Technology (MeitY) in Mumbai.

Centralized Public Grievance Redress and Monitoring System (CPGRAMS):
- It is an online web-enabled system developed by National Informatics Centre (Ministry of Electronics & IT [MeitY]), in association with Directorate of Public Grievances (DPG) and Department of Administrative Reforms and Public Grievances (DARPG).
- The CPGRAMS provides the facility to lodge a grievance online from any geographical location. It enables the citizen to track online the grievance being followed up with Departments concerned and also enables DARPG to monitor the grievance.

National e-Governance Service Delivery Assessment: It aims at assessing the States, UTs and Central Ministries on the efficiency of e-Governance service delivery.

Comprehensive restructuring of the Scheme for ‘Prime Minister’s Awards for Excellence in Public Administration’ in 2014 and thereafter in 2020.

Administrative Reforms Commission
- The ARC is set up by the Government of India to review the public administration system and give recommendations to improve it.
- The first ARC (1966) was headed by Morarji Desai initially and later by K. Hanumanthaiah. The second ARC constituted in 2005 was chaired by Veerappa Moily.

Supreme Court Rules on Future Retail Vs Amazon

Why in News
Recently, the Supreme Court upheld the enforcement of an order by the Singapore International Arbitration Centre (SIAC)’s emergency arbitrator that puts on hold the Future Group’s deal with Reliance Industries Limited.

Singapore International Arbitration Centre
- It is a not-for-profit international arbitration organisation based in Singapore, which administers arbitrations under its own rules of arbitration and the United Nations Commission on International Trade Law (UNCITRAL) Arbitration Rules.

Key Points
- Background:
  - In August 2020, Future Retail Limited (FRL) had announced that it would sell its retail and wholesale business to Reliance Retail.
  - Before the deal could be executed, Amazon objected to it, alleging a breach of contract it had with Future Coupons (the promoter firm of Future Retail).
    - Amazon said that its agreement with Future Coupons had given it a “call” option, which enabled it to exercise the option of acquiring all or part of Future Retail’s shareholding in the company, within three to 10 years of the agreement.
  - Subsequently, Amazon took Future Retail into Emergency Arbitration before the SIAC, where an emergency arbitrator barred the latter from proceeding with the deal.
  - Emergency arbitration is a mechanism which “allows a disputing party to apply for urgent interim relief before an arbitration tribunal has been formally constituted”.

Significance of Supreme Court’s Order:
- Dismissed FRL’s argument that the “Emergency Arbitrator is not an arbitral tribunal” under the Arbitration and Conciliation Act of 1996.
- It upheld the validity of the EA award. The judgment laid down that the award is “exactly like an order of an arbitral tribunal” contemplated under Section 17 of the 1996 Act. Hence, an award by the EA was like an order under Section 17(1) (interim measures ordered by an arbitral tribunal) of the Act.
  - Section 17 of the Act prescribes the mechanism for parties to an arbitration to seek interim reliefs from the arbitral tribunal during the pendency of the arbitral proceedings.
- The EA orders were “an important step in aid of decongesting the civil courts and affording expeditious interim relief to the parties”.

Note:
The court pointed out a recommendation that a High-Level Committee constituted by the Government of India under the chairmanship of Justice B N Srikrishna (retd) to review the institutionalisation of the arbitration mechanism in India and look into the provisions of the Arbitration Act after the 2015 Amendment Act, gave in its 2017 report.

- It said that “given that international practice is in favour of enforcing emergency awards (Singapore, Hong Kong and the United Kingdom all permit enforcement of emergency awards), it is time that India permitted the enforcement of emergency awards in all arbitral proceedings”.

- The judgment would serve as a reminder to the parties to carefully agree to the terms and conditions of the arbitration.

- No appeal would lie under Section 37 of the Arbitration Act against an order of enforcement of an Emergency Arbitrator’s order made under Section 17(2) of the Act.
  - Section 37 of the Arbitration Act, prescribes for appeals against certain identified orders of the court and/or arbitral tribunal (as the case may be).
  - However, Section 37 (unlike Section 34) of the Act is silent on the limitation period for filing an appeal.

**Arbitration**

- **About:**
  - It is a process in which disputes are resolved between the parties by appointing an independent third party who is an impartial and neutral person called arbitrator. Arbitrators hear both the parties before arriving at a solution to their dispute.

- **Arbitration and Conciliation (Amendment) Act, 2021:**
  - It amends the Arbitration and Conciliation Act (A&C Act 1996) so as to (i) enable automatic stay on awards in certain cases and (ii) specify by regulations the qualifications, experience and norms for accreditation of arbitrators.
  - A&C Act 1996 is an act to amend and consolidate a law related to domestic arbitration, international commercial arbitration and enforcement of foreign arbitral awards as also to define the law relating to conciliation and for matters connected therewith or incidental therewith.

**Features of the Act:**

- **Qualifications of Arbitrators:**
  - It does away with the qualifications of the arbitrators under 8th Schedule of the Arbitration and Conciliation Act, 1996 which specified that the arbitrator must be:
    - An advocate under the Advocates Act, 1961 with 10 years of experience, or
    - An officer of the Indian Legal Service.

- **Unconditional Stay on Awards:**
  - If the Award is being given on the basis of a fraudulent agreement or corruption, then the court can grant an unconditional stay as long as an appeal under Section 34 of the arbitration law is pending.

**Benefits:**

- Would bring about parity among all the stakeholders in the arbitration process.
- Checking misuse of the provisions under Arbitration and Conciliation Act, 1996 would save the taxpayers money by holding those accountable who siphoned off of them unlawfully.

**Drawbacks:**

- India already lags behind when it comes to the enforcement of international contracts and agreements. The Act can further hamper the spirit of Make in India campaign and deteriorate rankings in Ease of Doing Business Index.
- India aims to become a hub of domestic and international arbitration. Through the implementation of these legislative changes, resolution of commercial disputes could take longer duration now onwards.

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**Eighth Schedule of the Indian Constitution**

**Why in News**

Recently, the Union Minister of Education has informed in the Lok Sabha about the various steps taken by the government to promote the Languages in Eighth Schedule.

**Key Points**

- **Eighth Schedule:**
  - 

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Note:
About:

- It lists the official languages of the republic of India. Part XVII of the Indian constitution deals with the official languages in Articles 343 to 351.
- The Constitutional provisions related to the Eighth Schedule are:
  - Article 344: Article 344(1) provides for the constitution of a Commission by the President on expiration of five years from the commencement of the Constitution.
  - Article 351: It provides for the spread of the Hindi language to develop it so that it may serve as a medium of expression for all the elements of the composite culture of India.
- However, it can be noted that there is no fixed criteria for any language to be considered for inclusion in the Eighth Schedule.

Official Languages:

- The Eighth Schedule to the Constitution consists of the following 22 languages:
  - Assamese, Bengali, Gujarati, Hindi, Kannada, Kashmiri, Konkani, Malayalam, Manipuri, Marathi, Nepali, Oriya, Punjabi, Sanskrit, Sindhi, Tamil, Telugu, Urdu, Bodo, Santhali, Maithili and Dogri.
- Of these languages, 14 were initially included in the Constitution.
- Sindhi language was added by the 21st Amendment Act of 1967.
- Konkani, Manipuri, and Nepali were included by the 71st Amendment Act of 1992.
- Bodo, Dogri, Maithili, and Santhali were added by the 92nd Amendment Act of 2003 which came into force in 2004.

Classical Languages:

- About:
  - 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.

Guidelines:

- 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.

Benefits for Promotion:

- 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.

Governor’s Power to Pardon Overrides Section 433A: SC

Why in News

Recently, the Supreme Court (SC) held that the Governor’s power to pardon overrides Section 433A of Code of Criminal Procedure (CrPC).

- Earlier in January 2021, in a case of mercy petition, the SC noted that the Governor cannot reject the state’s recommendation but there is no time prescribed to take a decision.

Key Points

- Pardoning Power Overrides 433A:
  - SC held that the Governor of a State can pardon prisoners, even before they have served a minimum 14 years of prison sentence.
  - The Governor’s power to pardon overrides a provision in the CrPC Section 433A which mandates that a prisoner’s sentence can be remitted only after 14 years of jail.
Section 433A states that where a sentence of imprisonment for life is imposed on conviction of a person for an offence for which death is one of the punishments provided by law, or where a sentence of death imposed on a person has been commuted under section 433 into one of imprisonment for life, such person shall not be released from prison unless he had served at least fourteen years of imprisonment.

Section 433-A cannot and does not in any way affect the constitutional power conferred on the President/Governor to grant pardon under Articles 72 or 161 of the Constitution.

Power Exercised by State Government:
- The court noted that the sovereign power of a Governor to pardon a prisoner under Article 161 is actually exercised by the State government and not the Governor on his own.
- The advice of the appropriate government binds the Head of the State.

Order of Commutation:
- The action of commutation and release can thus be pursuant to a governmental decision and the order may be issued even without the Governor’s approval. However, under the Rules of Business and as a matter of constitutional courtesy, it may seek approval of the Governor, if such release is under Article 161 of the Constitution.
- The state government can frame a policy of grant of remissions either under Section 432 of the CrPC or under Article 161 of the Constitution.
- If a prisoner has undergone more than 14 years of actual imprisonment, the state government, as an appropriate Government, is competent to pass an order of premature release.
- Section 432 of the Code of Criminal Procedure empowers the Government to remit sentence.

Pardoning Power

Pardoning Power of the President in India:
- About:
  - Under Article 72 of the Constitution, the President 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 where the sentence is a sentence of death.

Limitation:
- The President cannot exercise his power of pardon independent of the government.
- In several cases, the SC has ruled that the President has to act on the advice of the Council of Ministers while deciding mercy pleas. These include Maru Ram vs Union of India in 1980, and Dhananjay Chatterjee vs State of West Bengal in 1994.

Reconsideration:
- Although the President is bound by the Cabinet’s advice, Article 74 (1) empowers him to return it for reconsideration once. If the Council of Ministers decides against any change, the President has no option but to accept it.

Governor’s Pardoning Power:
- Article 161:
  - 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.

Difference Between Pardoning Powers of President and Governor:
- The scope of the pardoning power of the President under Article 72 is wider than the pardoning power of the Governor under Article 161 which differs in the following two ways:
  - Court Martial: The power of the President to grant pardon extends in cases where the punishment or sentence is by a Court Martial but Article 161 does not provide any such power to the Governor.
  - Death sentence: The President can grant pardon in all cases where the sentence given is the sentence of death but the pardoning power of the Governor does not extend to death sentence cases.

Terms
- Pardon: It removes both the sentence and the conviction and completely absolves the convict from all sentences, punishments and disqualifications.
- Commutation: It denotes the substitution of one form of punishment for a lighter form. For example,
a death sentence may be commuted to rigorous imprisonment, which in turn may be commuted to a simple imprisonment.

- **Remission:** It implies **reducing the period of sentence without changing its character.** For example, a sentence of rigorous imprisonment for two years may be remitted to rigorous imprisonment for one year.
- **Respite:** It denotes **awarding a lesser sentence in place of one originally awarded due to some special fact,** such as the physical disability of a convict or the pregnancy of a woman offender.
- **Reprieve:** It implies **a stay of the execution of a sentence** (especially that of death) for a temporary period. Its purpose is to enable the convict to have time to seek pardon or commutation.

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### Government e-Marketplace

#### Why in News

The Government e-Marketplace (GeM) system has resulted in **10% savings in public procurement costs in five years,** but has still tapped only 5% of India’s total government purchases of about Rs 20 lakh crore a year.

- 56% of the order value processed through the GeM portal has been delivered by **Micro, Small and Medium Enterprises (MSMEs),** with seven lakh small firms on board.

#### Key Points

- **About:**
  - GeM is a one-stop National Public Procurement Portal to facilitate online procurement of common use Goods & Services required by various Central and State Government Departments/Organizations/Public Sector Undertakings (PSUs).
  - The procurement of goods and services by Ministries and the Central Public Sector Enterprises (CPSEs) is mandatory for goods and services available on GeM.
  - It also provides the tools of e-bidding and reverse e-auction to facilitate the government users achieve the best value for their money.
  - At present, GeM has more than 30 lakh products, over Rs. 10 lakh crore worth of transactions have happened so far at the portal.

- **Launch:**
  - It was launched in **2016** to bring transparency and efficiency in the government buying process.

- **Nodal Ministry:**
  - Ministry of Commerce and Industry.

- **Recent Updates:**
  - **Bamboo Market Window** (The Green Gold Collection).
  - **Country of Origin Mandatory:** GeM has made it mandatory for sellers to enter the Country of Origin while registering all new products on GeM.
    - This has been enabled on the portal so that the buyers can choose to buy only those products that meet the minimum 50% local content criteria.

- **Significance:**
  - **Transparent and Cost-effective Procurement:** GeM is enabling quick, efficient, transparent and cost-effective procurement, especially when government organizations require products and services urgently to fight against the Covid-19 pandemic.
  - **Promotion of Atmanirbhar Bharat:** GeM has been promoting the Atmanirbhar Bharat policy, introduced in the wake of the Covid-19 pandemic, meant to encourage self-reliance and boost small Indian manufacturers.
  - **Entry of Small Local Sellers:** The Marketplace has facilitated entry of small local sellers in Public Procurement, while implementing ‘Make in India’ and MSME Purchase Preference Policies of the Government in the true sense.
  - **Multiple Entities at One Place:** The online marketplace can aggregate demand from multiple entities for similar products, and build on the preferences provided by State governments to small enterprises.

- **Challenges:**
  - **Multiple Portals:**
    - There are multiple portals in Central government departments, such as the defence procurement portal, and the Indian Railways e-Procurement System, which could limit GeM’s effort to achieve its mandate as the National Public Procurement Portal and provide the benefit of economies of scale and efficiency.
  - **Lack of Compliance:**
It also faces a bit of a challenge in getting all Central organisations to comply with Rule 149 of the General Financial Rules (GFR) 2017, which mandates that all common-use goods and services that are available on the GeM portal should necessarily be procured on the platform.

100 Years of Madras Legislative Council

Why in News
Recently, the President addressed the commemoration of the 100th year of the Tamil Nadu Assembly, formerly known as the Madras Legislative Council (MLC) in Chennai.

Key Points
- History:
  - The Madras Legislative Council was set up in 1921 under the Government of India Act 1919.
  - The term of the Council was for a period of three years. It consisted of 132 Members of which 34 were nominated by the Governor and the rest were elected.
  - It met for the first time on the 9th January 1921 at Fort St. George, Madras.
  - The Council was inaugurated by the Duke of Cannaught, a paternal uncle of the King of England, on the 12th January 1921 on the request made by the Governor Wellington.
  - The Second and Third Councils, under this Act were constituted after the general elections held in 1923 and 1926 respectively.
  - The fourth Legislative Council met for the first time in November 1930 after the general elections held during the year and its life was extended from time to time and it lasted till the provincial autonomy under the Government of India Act, 1935 came into operation.
- Significance:
  - This legislature became the fountainhead of many progressive legislations which were subsequently replicated across the country to empower the weaker sections of society and strengthen Democracy.

State Legislature
- About:
  - The primary function of the State Legislature, like the Union Parliament, is law-making. The State Legislature is empowered to make laws on State List and Concurrent List.
- Types of Legislature:
  - Just as Parliament has two Houses, the states can also have a Legislative Council in addition to the Legislative Assembly.
  - Therefore there can be two types of legislatures i.e Unicameral or Bicameral on the basis of the number of houses to implement laws for the state.
    - Unicameral: Legislative Assembly
    - Bicameral: Legislative Assembly and Legislative Council.
  - Presently, there are Six States having a Legislative Council: Andhra Pradesh, Telangana, Uttar Pradesh, Bihar, Maharashtra, Karnataka.
- Constitutional Provisions:
  - Articles 168 to 212 in Part VI of the Constitution deal with the organisation, composition, duration, officers, procedures, privileges, powers and so on of the state legislature.
  - Article 168 states that for every State there shall be a Legislature which shall consist of the Governor.
  - Article 169 states that notwithstanding anything in article 168, Parliament may by law provide for the abolition of the Legislative Council of a State having such a Council or for the creation of such a Council in a State having no such Council, if the Legislative Assembly of the State passes a resolution to that effect.

Political System at State Level
Abolition of the Devadasi system, widow remarriage, mid-day meals in schools and distribution of agricultural land to the landless were some of the revolutionary ideas that transformed the society. The concept of the Welfare State has taken deep roots in this legislature.

Constitution (Scheduled Tribes) Order (Amendment) Bill, 2021

Why in News
Recently, Rajya Sabha has passed the Constitution (Scheduled Tribes) Order (Amendment) Bill, 2021. The bill provides for modifying Part-XVIII of the Schedule to the Constitution (Scheduled Tribes) Order, 1950, relating to the state of Arunachal Pradesh.

Key Points
About the Bill:
- It seeks to amend the constitutional list of Scheduled Tribes as recommended by Arunachal Pradesh.
  - At present, there are 18 communities with their synonyms appearing in the illustrative list of Scheduled Tribes in respect of the state of Arunachal Pradesh.
- This amendment in the list of Scheduled Tribes, relating to the state of Arunachal Pradesh, will entail no additional recurring expenditure from the Consolidated Fund of India, on account of benefits likely to be provided to persons belonging to the communities proposed in the Bill.
  - The Ministry of Tribal Affairs is funding the welfare of 10.45 crores of Scheduled Tribes population (Census, 2011).
  - Further, the Scheduled Tribes are also eligible for benefits under the Scheduled Tribes Component (STC) of schemes under the central government and state governments.
  - The basic objective of Schedule Tribe Component is to channelize/monitor the flow of outlays and benefits from the general sectors in the Central Ministries/Departments for the development of Scheduled Tribes at least in proportion to their population.
- The Bill removes the Abor tribe from the list of identified STs in Arunachal Pradesh. Further, it replaces certain STs with other tribes (as indicated below):

<table>
<thead>
<tr>
<th>Original list</th>
<th>Proposed changes under the Bill</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abor</td>
<td>Deleted from the list</td>
</tr>
<tr>
<td>Khampti</td>
<td>Tai Khamti</td>
</tr>
<tr>
<td>Mishmi, Idu and Tarao</td>
<td>Mishmi-Kaman (Miju Mishmi), Idu (Mishmi) and Taraon (Digaru Mishmi)</td>
</tr>
<tr>
<td>Momba</td>
<td>Monpa, Memba, Sartang, and Sajolang (Miji)</td>
</tr>
<tr>
<td>Any Naga Tribes</td>
<td>Nocte, Tangsa, Tutsa, and Wancho</td>
</tr>
</tbody>
</table>

Scheduled Tribes in Arunachal Pradesh:
- Nearly 64.2% of the total population of Arunachal Pradesh is Scheduled Tribes (STs) according to the 2001 Census.
- The state has registered a decadal growth of 28.1% of ST population in 1991-2001 Census.

Scheduled Tribe
- Article 366 (25) of the Constitution refers to Scheduled Tribes as those communities, who are scheduled in accordance with Article 342 of the Constitution.
- Article 342 says that only those communities who have been declared as such by the President through an initial public notification or through a subsequent amending Act of Parliament will be considered to be Scheduled Tribes.
- The list of Scheduled Tribes is State/UT specific and a community declared as a Scheduled Tribe in a State need not be so in another State.
- The Constitution is silent about the criteria for specification of a community as a Scheduled Tribe. Primitiveness, geographical isolation, shyness and social, educational & economic backwardness are the traits that distinguish Scheduled Tribe communities from other communities.
- There are certain Scheduled Tribes, 75 in number known as Particularly Vulnerable Tribal Groups (PVTGs), who are characterised by:- a) pre-agriculture level of technology; b) stagnant or declining population; c) extremely low literacy; and d) subsistence level of economy.
Government Initiatives: The Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 (FRA); The Provision of the Panchayats (Extension to the Scheduled Areas) Act, 1996; Minor Forest Produce Act 2005; SC And ST (Prevention Of Atrocities) Act; and the Tribal Sub-Plan Strategy are focused on the socio-economic empowerment of STs.

Sorry State of Tribunals

Why in News

Recently, the Supreme Court (SC) expressed displeasure against the Central government by asking whether it intends to “close” tribunals across the country by not filling up vacancies that have been pending for years.

Key Points

- About Tribunals:
  - Tribunal is a quasi-judicial institution that is set up to deal with problems such as resolving administrative or tax-related disputes.
  - It performs a number of functions like adjudicating disputes, determining rights between contesting parties, making an administrative decision, reviewing an existing administrative decision and so forth.
  - Tribunals were not part of the original constitution, it was incorporated in the Indian Constitution by 42nd Amendment Act, 1976.
  - Article 323-A deals with Administrative Tribunals.
  - Article 323-B deals with tribunals for other matters.

- The Tribunals were set up to reduce the workload of courts, to expedite decisions and to provide a forum which would be manned by lawyers and experts in the areas falling under the jurisdiction of the Tribunal.

- Issues Concerning Tribunals:
  - Persisting Vacancies: The SC noted that, the vacancies of 20 presiding officers, 110 judicial members and 111 technical members were pending across the country in various tribunals.
    - For example, in the National Green Tribunal, Income Tax Appellate Tribunal, Central Administrative Tribunal.
  - Ignoring Recommendations: Recommendations of names by the selection committees led by sitting Supreme Court judges to fill up the vacancies have been largely ignored by the government.
  - Denying Right of the People to Access Justice: The Court pointed out that with tribunals defunct and High Courts having no jurisdiction over the areas of law wielded by tribunals, litigants have nowhere to go for justice.
  - Problem of Non-Uniformity: Added to this is the problem of non-uniformity across tribunals with respect to service conditions, tenure of members, varying nodal ministries in charge of different tribunals.

- Related Development:
  - The Tribunals Reforms (Rationalisation and Conditions of Service) Bill, 2021 has been introduced in Lok Sabha.
  - The Bill dissolves certain existing appellate bodies and transfers their functions to other existing judicial bodies.
  - The term of office for the Chairperson and members of a Tribunals will be four years, subject to an upper age limit of seventy years for the Chairperson, and sixty-seven years for other members.
  - The Bill specifies that a person should be at least 50 years of age to be eligible for appointment as a Chairperson or member.
Constitutional (127th) Amendment Bill, 2021

**Why in News**

The Government is planning to bring a Bill to Parliament to clarify “some provisions in the 102nd Constitutional amendment Bill” to restore the power of the states to identify backward classes.

- In India, separate OBC lists are drawn up by the Centre and each state concerned. Articles 15(4), 15(5) and 16(4) expressly conferred power on a state to identify and declare the list of socially and educationally backward classes.

**Key Points**

- **Background:**
  - The amendment was necessitated after the Supreme Court in its ruling earlier this year upheld the 102nd constitutional amendment but said the President, based on the recommendations of the National Commission for Backward Classes (NCBC), would determine which communities would be included on the state OBC list.
  - The 102nd Constitution Amendment Act of 2018 inserted Articles 338B and Article 342A (with two clauses) after Article 342.
    - Articles 338B deals with the structure, duties and powers of the National Commission for Backward Classes.
    - Article 342A says that the President, in consultation with the governor, would specify the socially and educationally backward classes.
  - The ruling struck down the Maratha quota introduced by the Maharashtra government - a politically potent issue in the state.

- **About the Bill:**
  - It will amend clauses 1 and 2 of Article 342A and also introduce a new clause 3.
  - The bill will also amend the Articles 366 (26c) and 338B (9).
  - It is designed to clarify that the states can maintain the “state list” of OBCs as was the system before the Supreme Court judgement.

- **Articles 366 (26c) defines socially and educationally backward classes.**
  - The “state list” will be completely taken out of the ambit of the President and will be notified by the state assembly.

- **Other Developments on OBCs:**
  - Some MPs have raised the issue of defining Creamy Layer in the ongoing Monsoon Session of Parliament.
  - Further, the Justice Rohini committee is considering the sub-categorization of OBC quota and if any particular community or group of communities are benefitting most from the OBC quota and how to iron out anomalies.
  - The Union Health Ministry has announced 27% reservation for the Other Backward Classes (OBCs) and 10% quota for the Economically Weaker Sections (EWS) in the All India Quota (AIQ) scheme for undergraduate (UG) and postgraduate (PG) medical/dental courses from 2021-22 onwards.

Second Anniversary of Special Status Revocation: J&K

**Why in News**

The Forum for Human Rights in J&K (FHRJK) released its report a day ahead of Jammu and Kashmir (J&K) completing two years as Union Territory.

- The report raised concerns about the militancy that continues to remain a major challenge in J&K.
- FHRJK is an independent body co-chaired by former Supreme Court judge Justice Madan B. Lokur and former Kashmir interlocutor Radha Kumar.

Note:
Key Points

➤ Background:
  - On 5 August 2019, the government of India revoked the special constitutional status of the erstwhile state of Jammu and Kashmir under Article 370 of the Constitution, and abrogated Article 35A.
    - Article 35A had allowed J&K to define who its ‘permanent residents’ are and what rights and privileges are attached to such residency.
  - The former state was bifurcated into the Union Territories of Ladakh (without a legislature) and Jammu-Kashmir (with a legislature).
  - Concurrently, the Indian government imposed a near-total telecommunications lockdown in the region, detained political leaders and dissidents, and enforced Section 144 of the Indian Penal Code to prevent violent unrest.

➤ Findings from the Report:
  - The reports raised concerns regarding human rights abuses, arbitrary detentions, prohibition on assembly and censorship on local media houses in J&K.
  - The government has taken several positive steps, but they fell short of expectations.
  - It also held that the counter-insurgency concerns continue to be given priority over public, civilian and human security.

➤ Reasons for Militancy in J&K:
  - Since the special constitutional position of Jammu and Kashmir (J&K:s) under Article 370 was ended and it was divided into two UTs of J&K and Ladakh, a section of people in J&K has been protesting against the decision.
    - Further, allowing Indian citizens to buy land in Jammu and Kashmir (J&K) without being a domicile, has angered the local people.
  - Following this the militancy in the J&K, aided by cross-border support, continues to affect the region.
    - This is coupled with misuse of draconian legislation, such as the Public Safety Act (PSA) and the Unlawful Activities Prevention Act (UAPA).
  - Furthermore, there are growing fears that the Taliban takeover of Afghanistan is likely to further deteriot the security conditions.

➤ Steps Taken by Government & Judiciary:
  - Promoting Industrial Development: Recently, the Department for Promotion of Industry and Internal Trade has notified New Central Sector Scheme for industrial development of Jammu and Kashmir.
    - The scheme offers four incentives namely:
      - Capital Investment Incentive
      - Capital Interest subvention
      - Goods & Service Tax Linked Incentive
      - Working Capital Interest Subvention
    - The Scheme will help in creation of more employment opportunities and promotion of tourism in the region.
  - AB-PMJAY SEHAT Scheme: The Scheme provides free of cost insurance cover. It provides financial cover upto Rs. 5 lakh per family on a floater basis to all residents of the UT of J&K.
  - Ceasefire Agreement: Indian and Pakistani Directors-General of Military Operations (DGMOs) agreed for restricted infiltration by armed groups and raised hopes that a wider peace process might follow.
  - Elections in J&K: The Union government sought to conduct elections in J&K.
    - However, the government held that the elections would be held for a UT assembly. On the contrary, regional parties are of the view that they will participate in the election, after statehood to J&K has been reinstated.
  - Supreme Court Verdict on Internet Shutdown: The Supreme Court gave a judgement in response to petitions filed, arguing the Internet shutdown and curbing of other civil liberties in the J&K.
    - The court held that suspension could be done for temporary duration only and the same is subject to judicial review.

Funds Lapsed in MPLADS

Why in News

Recently, the Standing Committee on Finance has criticised the decision of the Ministry of Finance (Department of Expenditure) for giving barely a week’s time to
the Ministry of Statistics and Programme Implementation (MoSPI) for funding ongoing Member of Parliament Local Area Development Scheme (MPLADS) projects, owing to which 50% funds lapsed.

**Key Points**

- **Findings of the Committee:**
  - **Impact on the Projects:** The resultant funding crunch would have hit several local area development projects under implementation across the country.
    - Especially in the States that went to polls this year as no funds were released for these States and constituencies citing the Model Code of Conduct.
  - **Ad-hocism in Policy:** Under MPLADs, funds released to district authorities are not lapsable, while funds not released by the government in a particular year are carried forward.
    - However, the decision of the Ministry of Finance that made funds lapseable, constitutes ad-hocism and a serious lapse in fiscal management with negative consequences for communities across India.

- **About the MPLAD Scheme:**
  - MPLAD is a Central Sector Scheme which was announced in December 1993.
  - The objective of the scheme is to enable the Members of Parliament (MP) to suggest and execute developmental works of capital nature based on locally felt needs with emphasis on creation of durable assets.
  - Initially, it came under the control of the Ministry of Rural Development. Later, in October 1994, it was transferred to the Ministry of Statistics and Programme Implementation.

- **Functioning:**
  - Each MP is granted Rs. 5 crore under the scheme, adding up to Rs. 3,950 crore a year for 790 MPs, to undertake development projects in their respective constituencies.
  - Lok Sabha MPs have to recommend the district authorities projects in their Lok Sabha constituencies.
  - Rajya Sabha MPs have to spend it in the state that has elected them to the House.
  - Nominated Members of both the Rajya Sabha and Lok Sabha can recommend works anywhere in the country.

- **Priority Projects:**
  - The projects include asset building such as drinking water facilities, primary education, public health sanitation and roads.
  - Since June 2016, the MPLAD funds can also be used for implementation of the schemes such as Swachh Bharat Abhiyan, Accessible India Campaign (Sugamya Bharat Abhiyan), conservation of water through rain water harvesting and Sansad Aadarsh Gram Yojana, etc.

- **Other Issues Related to MPLADS:**
  - **Implementation Lapses:** The Comptroller and Auditor-General of India (CAG) has flagged instances of financial mismanagement and artificial inflation of amounts spent.
  - **No Statutory Backing:** The scheme is not governed by any statutory law and is subject to the whims and fancies of the government of the day.
  - **Monitoring and Regulation:** The scheme was launched for promoting participatory development but there is no indicator available to measure level of participation.
  - **Breach of Federalism:** Union Government can incur expenditure only with respect to matters over which it has subject domain as per seventh schedule.

Note:
MPLADS encroaches upon the domain of local self-governing institutions and thereby violates Part IX and IX-A of the Constitution.

Conflict with Doctrine of Separation of Powers: The Scheme disturbs the scheme of separation of powers under the Constitution, as MPs are getting involved in executive functions.

Panchayat Extension to Scheduled Areas (PESA) Act, 1996

Why in News

The Adivasi self-governance system has disappeared from most of the areas in Jharkhand.

- During most of the time in history, most of the Adivasis (India’s tribal communities) had their own federal governance system. However, the administrative systems during the colonial period and after independence affected the Adivasi governance system to a great extent.
- The Panchayat Extension to Scheduled Areas (PESA) Act, 1996 was supposed to uphold the traditional decision-making process.

Key Points

- Case Study - Tribal Governance System of Jharkhand:
  - Jharkhand was carved out as the 28th state of India from the Southern part of Bihar in 2000.
    - This part was distinctively different from the northern part of Bihar in terms of geography and social composition.
  - It has 32 different tribes, including the nine Particularly Vulnerable Tribal Groups (PVTG).
    - According to Census 2001, Santhal (34%), Oraon (19.6%), Munda (14.8%) and Ho (10.5%) are among the major tribes in terms of numbers.
  - The entire social system was organised into three functional levels across major tribal communities in the state.
    - The first one is at the village level; the second at the cluster of five-six village levels and the third at community levels.
- These decision-making processes were considered people-centric and democratic, although women were mostly not allowed to participate in such processes.
- They had their own system of governance, which was, unlike the caste system, non-hierarchical. Every tribal village had a village council as the basic unit for self-governance.
- These forums used to act as the decision-making bodies for all matters related to administration, the Parliament and judiciary.
  - The administrative matters were related to maintenance of village commons (such as lands, forests and water bodies), labour sharing, agriculture activities, religious events and festivals, etc.
  - The parliamentary matters were related to upholding and interpreting norms and unwritten laws and traditional values.
  - The judiciary matters were related to managing conflict, disciplinary actions, etc guided by unwritten norms and values.
- Gradual Collapse of the System: After the introduction of the Bihar Panchayat Raj System (BPRS) in 1947, these Adivasi traditional governance systems became weak.
  - BPRS was formed keeping the non-Adivasi areas in view.
  - As a result, due to the non-priority and neglect, the process of the traditional governance system was affected.
  - This was aggravated by industrialisation, displacement of Adivasis and urbanisation.
- About Panchayat Extension to Scheduled Areas (PESA) Act, 1996:
  - To promote local self-governance in rural India, the 73rd constitutional amendment was made in 1992.
  - Through this amendment, a three-tier Panchayati Raj Institution was made into a law.
    - However, its application to the scheduled and tribal areas under Article 243(M) was restricted.
  - After the Bhuria Committee recommendations in 1995, Panchayat Extension to Scheduled Areas (PESA) Act 1996 came into existence for ensuring tribal self-rule for people living in scheduled areas of India.
The PESA conferred the absolute powers to Gram Sabha, whereas state legislature has given an advisory role to ensure the proper functioning of Panchayats and Gram Sabhas.

- The power delegated to Gram Sabha cannot be curtailed by a higher level, and there shall be independence throughout.

The PESA is considered to be the backbone of tribal legislation in India.

PESA recognises the traditional system of the decision-making process and stands for the peoples' self-governance.

Following powers and functions have been provided to the Gram Sabhas:
- Right to mandatory consultation in land acquisition, resettlement and rehabilitation of displaced persons.
- Protection of traditional belief, the culture of the tribal communities
- Ownership of minor forest products
- Resolution of the local disputes
- Prevention of land alienation
- Management of village markets
- Right to control production, distillation, and prohibition of liquor
- Exercise of control over money-lending
- Any other rights involving the Scheduled Tribes.

Issues Related to PESA:
- The state governments are supposed to enact state laws for their Scheduled Areas in consonance with this national law.
  - This has resulted in the partially implemented PESA.
  - The partial implementation has worsened self-governance in Adivasi areas, like in Jharkhand.
- Many experts have asserted that PESA did not deliver due to the lack of clarity, legal infirmity, bureaucratic apathy, absence of a political will, resistance to change in the hierarchy of power, and so on.
- Social audits conducted across the state have also pointed out that in reality different developmental schemes were being approved on paper by Gram Sabha, without actually having any meeting for discussion and decision making.

India’s Tribal Policy
- In India, most of the tribes are collectively identified under Article 342 (1&2) as “Scheduled Tribes”.
- Their right to self-determination is guaranteed by Part X: The Scheduled and Tribal Areas – Article 244: Administration of Scheduled Areas and Tribal Areas.
  - That is, Fifth and Sixth Schedules of the Indian Constitution.
- The Provisions of the Panchayats (Extension to Scheduled Areas) Act, 1996 or PESA.
- The Tribal Panchsheel Policy
- Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 concerns the rights of forest-dwelling communities to land and other resources.

112th Annual Day of National Centre for Disease Control

Why in News
Recently, the Union Minister of Health and Family Welfare presided over the 112th Annual Day celebrations of National Centre for Disease Control (NCDC).

Key Points
- Initiatives launched at the Event:
  - Genome Lab:
    - The Whole Genome Sequencing (WGS) National Reference Laboratory for Antimicrobial Resistance (AMR) was inaugurated.
    - WGS is a comprehensive method for analyzing entire genomes. Genomic information has been instrumental in identifying inherited disorders, characterizing the mutations that drive cancer progression, and tracking disease outbreaks.
    - Rapidly dropping sequencing costs and the ability to produce large volumes of data with today’s sequencers make whole-genome sequencing a powerful tool for genomics research.
  - AMR is the resistance acquired by any microorganism (bacteria, viruses, fungi, parasite, etc.) against antimicrobial drugs (such as antibiotics, antifungals, antivirals, antimalarials, and anthelmintics) that are used to treat infections.
The application of WGS for global surveillance can provide information on the early emergence and spread of AMR and further inform timely policy development on AMR control.

- **Adaptation Plans under NPCCHH:**
  - The National Health Adaptation Plan on Air Pollution and National Health Adaptation Plan on Heat Related Illness were launched under the “National Programme on Climate Change and Human Health (NPCCHH)”.
  - The plan suggests setting up of a committee on air pollution and health in the hospital, to preferably involve health officials from the departments of medicine, respiratory medicine, paediatrics, cardiology, neurology, endocrinology etc, including emergency and nursing department.
  - It also highlights the need for preparations for logistics, drugs and equipment that may be required to address such health problems, particularly respiratory and cardiovascular emergencies.
  - It also highlights the need for identification of vulnerable areas, selection of air pollution hotspots as per Air Quality Index (AQI) levels, vulnerable population covering people less than five years of age, adolescents, pregnant women and the elderly.

- **Information, Education & Communication (IEC) Materials:**
  - Under the “National One health Programme for prevention and Control of Zoonoses” IEC materials on 7 priority zoonotic diseases has been created namely:
    - Rabies, Scrub Typhus, Brucellosis, Anthrax, Crimean-Congo haemorrhagic fever (CCHF), Nipah, Kyasanur Forest Disease in India.

- **National Centre for Disease Control:**
  - The National Centre for Disease Control (NCDC), formerly National Institute of Communicable Diseases (NICD), had its origin as the Central Malaria Bureau, established at Kasauli (Himachal Pradesh) in 1909.
  - NICD was transformed into the NCDC with a larger mandate of controlling emerging and re-emerging diseases in 2009.

**Objectives of NPCCHH**

- To create awareness among the general population (vulnerable community), health-care providers and Policy makers regarding impacts of climate change on human health.
- To strengthen the capacity of the healthcare system to reduce illnesses/diseases due to variability in climate.
- To strengthen health preparedness and response by performing situational analysis at national/state/district/below district levels.
- To develop partnerships and create synchrony/synergy with other missions and ensure that health is adequately represented in the climate change agenda in the country.
- To strengthen research capacity to fill the evidence gap on climate change impact on human health.

- It functions as the nodal agency in the country for disease surveillance facilitating prevention and control of communicable diseases.
- It is also a national level institute for training specialized manpower for public health, laboratory sciences and entomological services and is involved in various applied research activities.

- **Control & Headquarter:**
  - The Institute is under administrative control of the Director General of Health Services, Ministry of Health and Family Welfare.
  - The Institute has its headquarters in Delhi.

- **Functions:**
  - Undertakes investigations of disease outbreaks all over the country.
  - Provides referral diagnostic services to individuals, community, medical colleges, research institutions and state health directorates.
  - Engaged in generation and dissemination of knowledge in various areas like Epidemiology, Surveillance, and Laboratories etc.
  - Applied integrated research in various aspects of communicable as well as some aspects of non-communicable diseases has been one of the prime functions of the Institute.
**E-Prisons Project**

*Why in News*

The Ministry of Home Affairs (MHA) has provided financial assistance of Rs. 99.49 crores to the States and Union Territories (UTs) for the E-Prisons Project.

- Also, acting on the request of the MHA, NIMHANS, an Institute of National Importance, has recently issued a set of guidelines on the management of mental health issues of the prisoners and prison staff.

*Key Points*

- **About:**
  - This project aims at computerization of the functioning of prisons in the country. It has been operationalised in all States and Union Territories.
  - e-Prisons data has been integrated with the Police and Court system under the Inter-operable Criminal Justice System.
  - ePrisons application suite has been developed by National Informatics Centre (NIC), Ministry of Electronics & IT (MeitY).
  - It has 3 components:
    - e-Prison Management Information System (MIS): It is used at the prisons for their day to day regular activities.
    - National Prisons Information Portal: It is a citizen centric portal showing statistical data of various prisons in the country.

- **Inter-operable Criminal Justice System:**
  - It is a common platform for information exchange and analytics of all the pillars of the criminal justice system comprising Police, Forensics, Prosecution, Courts, Prisons.
  - Purpose: To reduce errors and time taken in sharing of necessary information between the pillars, which often lead to larger challenges like longer duration of trials, poorer convictions, transit losses of documents etc.
  - Some other critical benefits arising out of the ICJS ecosystem are usable analytics products like the National Database on Sexual Offenders (NDSO) to identify & track repeat and habitual sexual offenders.

- **Prisons/Persons detained therein’**
  - It is a State subject under Entry 4 of List II of the Seventh Schedule to the Constitution of India.
  - Administration and management of prisons is the responsibility of respective State Governments.
  - However, the Ministry of Home Affairs provides regular guidance and advice to States and UTs on various issues concerning prisons and prison inmates.
  - The Supreme Court had in September 2018 appointed the Justice Roy Committee to examine the various problems plaguing prisons, from overcrowding to lack of legal advice to convicts to issues of remission and parole.
Monetary Policy Report: RBI

Why in News

➢ The Reserve Bank of India (RBI) has released the Monetary Policy Report (MPR) for the month of August 2021.
   • It kept the policy rate unchanged for the seventh time in a row and appealed to the centre and states to reduce taxes on fuels to curb inflationary pressures.

Monetary Policy Report

➢ The MPR is published by the Monetary Policy Committee (MPC) of RBI.
➢ The MPC is a statutory and institutionalized framework under the RBI Act, 1934, for maintaining price stability, while keeping in mind the objective of growth.
➢ The MPC determines the policy interest rate (repo rate) required to achieve the inflation target of 4% with a leeway of 2% points on either side.
➢ The Governor of RBI is ex-officio Chairman of the MPC.

Key Points

➢ Unchanged Policy Rates:
   • Repo Rate - 4%.
   • Reverse Repo Rate - 3.35%.

➢ GDP Projection:
   • Real Gross Domestic Product (GDP) growth for 2021-22 has been retained at 9.5%.

➢ Inflation:
   • RBI has revised the projection for Consumer Price Index (CPI) inflation to 5.7% from 5.1%.

➢ Variable Rate Reverse Repos:
   • In order to absorb additional liquidity in the system, the RBI announced conducting a Variable Rate Reverse Repo (VRRR) program due to the higher yield prospects as compared to the fixed rate overnight reverse repo.
   • The RBI has decided to increase the quantum under the VRRR to Rs 4 trillion in a phased manner.
   • It also extended the liquidity support to banks to lend to stressed businesses by another three months to 31st December 2021.

➢ Interest Rates:
   • Elevated inflation level and delayed recovery in the economy has prompted the panel to keep rates steady. Interest rates in the banking system are expected to remain stable in the next couple of months.
   • Recovery faced rough weather due to the Covid wave and lockdowns in states.
Accommodative Stance:
- It decided to continue with an **accommodative stance** as long as necessary to revive and sustain growth on a durable basis and continue to mitigate the impact of **Covid-19** on the economy, while ensuring that inflation remains within the target going forward.
  - An accommodative stance means a central bank will cut rates to inject money into the financial system whenever needed.

Optimism For Recovery:
- Resilient Demand:
  - After the second wave of infections, domestic economic activity had started to recover with accelerated vaccination.
- Economic Package:
  - Although investment demand is still anaemic, improving capacity utilisation, rising steel consumption, higher imports of capital goods, congenial monetary and financial conditions and the **economic packages announced by the central government** are expected to kick-start a long-awaited revival.
- High Frequency Indicators:
  - High-frequency indicators (electricity consumption, nighttime lights intensity and nitrogen dioxide emissions) suggest that consumption (both private and Government), investment and external demand are all on the path of regaining traction.

Concerns:
- Inflation management can pose a serious challenge when the elevated fuel price pass through starts to occur and thus inflation shock is unlikely to be transitory even by definition.

Suggestions:
- Reduce Taxes:
  - With crude oil prices at elevated levels, a calibrated reduction of the indirect tax component of pump prices by the centre and states can help to substantially lessen cost pressures.
- Economic Stimulus:
  - On the economic front, despite the uptick, it is important that a stimulus is provided by the government to give a thrust to consumption.

The timing of such measures will be apt at this juncture as the festive season is about to begin.

Policy Use:
- The nascent and hesitant recovery in the economy needs to be nurtured through fiscal, monetary and sectoral policy levers.

Key Terms
- **Repo and Reverse Repo Rate:**
  - Repo rate is the rate at which the central bank of a country (Reserve Bank of India in case of India) lends money to commercial banks in the event of any shortfall of funds. Here, the central bank purchases the security.
  - Reverse repo rate is the rate at which the RBI borrows money from commercial banks within the country.
- **Bank Rate:**
  - It is the rate charged by the RBI for lending funds to commercial banks.
- **Marginal Standing Facility (MSF):**
  - MSF is a window for scheduled banks to borrow overnight from the RBI in an emergency situation when interbank liquidity dries up completely.
  - Under interbank lending, banks lend funds to one another for a specified term.
- **Inflation:**
  - Inflation refers to the rise in the prices of most goods and services of daily or common use, such as food, clothing, housing, recreation, transport, consumer staples, etc.
  - Inflation measures the average price change in a basket of commodities and services over time.
  - Inflation is indicative of the decrease in the purchasing power of a unit of a country’s currency. This could ultimately lead to a deceleration in economic growth.
- **Consumer Price Index:**
  - It measures price changes from the perspective of a retail buyer. It is released by the National Statistical Office (NSO).
  - The CPI calculates the difference in the price of commodities and services such as food, medical care, education, electronics etc, which Indian consumers buy for use.
Faceless Assessment Scheme: Income Tax

**Why in News**

Recently, the Income Tax (I-T) Department notified three official email IDs to register grievances, under the Faceless or e-Assessment Scheme.

- The Prime Minister in August 2020 announced three key structural tax reforms under the ‘Transparent Taxation - Honouring the Honest' platform - faceless assessment, faceless appeal and taxpayers’ charter to reduce tax disputes.

**Key Points**

- **Faceless or e-Assessment Scheme:**
  - **About:**
    - Under the faceless assessment system, a taxpayer or an assessee is not required to visit an I-T department office or meet a department official for income tax-related businesses.
  - **Launch:**
    - The faceless assessment scheme was launched in 2019.
  - **Objectives:**
    - To promote an efficient and effective tax administration, minimizing physical interface, increasing accountability and introduction of team-based assessments.
  - **Mechanism:**
    - Faceless assessment is administered through separate units within the tax department each of which has a specific and important role in the process, viz assessment units, verification units, technical units and review units. All these units work closely with the National e-assessment Centre (NeAC) and Regional e-assessment Centre (ReAC).
  - **Advantage:**
    - The scheme brings greater flexibility for taxpayers and professionals representing before tax authorities. It has resulted in substantial time savings on account of travel to the tax office, waiting time over there, etc.

- **Related Recent Initiatives:**

  - **Dispute Resolution Committee:**
    - In **Budget 2021**, the Minister of Finance has proposed the formation of a Dispute Resolution Committee (DRC) in order to provide quicker relief to taxpayers in tax disputes.
    - The DRC will cater to small taxpayers having a taxable income of up to Rs. 50 lakh and a disputed income of up to Rs. 10 lakh.
  - **Vivad Se Vishwas Scheme:**
    - The scheme provides for settlement of disputed tax, disputed interest, disputed penalty or disputed fees in relation to an assessment or reassessment order on payment of 100% of the disputed tax and 25% of the disputed penalty or interest or fee.

Delays in Corporate Insolvency

**Why in News**

Recently, the **Parliamentary Standing Committee on Finance** has noted the delays in corporate insolvency under the **Insolvency and Bankruptcy Code (IBC), 2016.**

- It has called out the Ministry of Corporate Affairs (MCA) on persistent vacancies in National Company Law Tribunals (NCLTs).
- Earlier, the government introduced the **Insolvency and Bankruptcy Code (Amendment Bill), 2021** in the Lok Sabha which introduces an alternate insolvency resolution process for **Micro, Small and Medium Enterprises (MSMEs)** called the **Pre-packaged Insolvency Resolution Process (PIRP).**

**Key Points**

- **Major Concerns:**
  - **Vacancies in NCLT:**
    - The combined strength of the current NCLT benches around the country is currently only 29 members against the total sanctioned strength of 63 members.
  - **Delays in Approvals:**
    - The committee noted that delays in the admission of insolvency cases by NCLTs and the approval of resolution plans were the key reasons behind the non-adherence of timelines under the IBC.
Insolvency and Bankruptcy Code

- It is a reform enacted in 2016. It amalgamates various laws relating to the insolvency resolution of business firms.
- It lays down clear-cut and faster insolvency proceedings to help creditors, such as banks, recover dues and prevent bad loans, a key drag on the economy.

Key Words

- Insolvency: It is a situation where individuals or companies are unable to repay their outstanding debt.
- Bankruptcy: It is a situation whereby a court of competent jurisdiction has declared a person or other entity insolvent, having passed appropriate orders to resolve it and protect the rights of the creditors. It is a legal declaration of one’s inability to pay off debts.

- Delays on the part of the NCLT in admitting cases allowed defaulting owners the opportunity to divert funds and transfer assets.
- Decisions Challenged:
  - A number of high profile cases under the IBC saw multiple decisions being challenged by stakeholders. Many of these appeals are frivolous attempts to slow down insolvency proceedings.
- Delayed Plans:
  - Cases in which creditors have evaluated resolution plans submitted after the specified deadline would disincentive bidders from bidding within prescribed timelines and that such plans also contribute to delays and value destruction.

- Recommendations:
  - Timely Action:
    - NCLT should be required to admit a defaulting company into insolvency proceedings and hand over control to a resolution professional within 30 days.
  - Ministry should take Responsibility:
    - The MCA, as the nodal ministry, should take greater responsibility to streamline the operational processes in NCLT/National Company Law Appellate Tribunal (NCLAT) while constantly monitoring and analysing the workflow, disposal and outcomes with regard to resolutions, recoveries, time taken, etc.

National Company Law Tribunal

- About:
  - The Central Government constituted National Company Law Tribunal (NCLT) under section 408 of the Companies Act, 2013. It has been set up as a quasi-judicial body to govern the companies registered in India and is a successor to the Company Law Board.
  - It consolidates all powers to govern the companies registered in India.
    - With the establishment of the NCLT and NCLAT, the Company Law Board under the Companies Act, 1956 has now been dissolved.
  - It is bound by the rules laid down in the Code of Civil Procedure and is guided by the principles of natural justice, subject to the other provisions of this Act and of any rules that are made by the Central Government.
  - The Tribunal and the Appellate Tribunal has the power to control its own procedure.

- Appeals:
  - Appeal from order of Tribunal can be raised to the NCLAT. Appeals can be made by any person aggrieved by an order or decision of the NCLT, within a period of 45 days from the date on which a copy of the order or decision of the Tribunal is received by the Appellant.

National Company Law Appellate Tribunal

- About:
  - The NCLAT was constituted under Section 410 of the Companies Act, 2013 to hear appeals against the orders of the National Company Law Tribunal (NCLT).
  - It is also the appellate tribunal for orders passed by the NCLT(s) under Section 61 of the IBC, 2016, and for orders passed by the Insolvency and Bankruptcy Board of India (IBBI) under Sections 202 and 211 of the IBC.

- Appeal:
  - Any person aggrieved by any order of the NCLAT may file an appeal to the Supreme Court.

- Amendment to IBC:
  - The IBC be amended to provide MSMEs, which

Note:
are operational creditors under the IBC, with greater protection in the current economic environment.

- The IBC currently prioritises financial creditors over operational creditors.
- Financial creditors are those whose relationship with the entity is a pure financial contract, such as a loan or a debt security.
- Operational creditors are those whose liability from the entity comes from a transaction on operations.

Doing Away With Retrospective Taxation

Why in News

Recently, the Government of India has introduced The Taxation Laws (Amendment) Bill, 2021 in the Lok Sabha.

- The bill seeks to withdraw tax demands made using a 2012 retrospective legislation to tax the indirect transfer of Indian assets.

Key Points

- Background:
  - The retrospective tax law was passed in 2012 following a Supreme Court verdict in favour of US-based Vodafone.
  - The Dutch arm of Vodafone Group bought a Cayman Islands-based company in 2007, which indirectly held a majority stake in Indian firm Hutchison Essar Ltd—later renamed Vodafone India—for $11 billion.
  - It was introduced after an amendment to the Finance Act enabled the tax department to impose retrospective capital gains tax for deals involving the transfer of shares in foreign entities located in India — after 1962.
  - While the amendment was aimed at penalising Vodafone, many other companies got caught in the crossfire and have created a host of problems for India over the years.
  - It remains one of the most contentious amendments to the income tax law.

- Last year, India lost a case in international arbitral tribunal at The Hague against taxing Cairn Energy Plc and Cairn UK holdings Ltd on alleged capital gains the company made when in 2006 it reorganised its business in the country before listing the local unit.

- Proposed Changes in Bill:
  - Amendments to the Income-tax Act and Finance Act, 2012 to effectively state that no tax demand shall be raised for any indirect transfer of Indian assets if the transaction was undertaken before 28th May 2012.
  - Tax raised for the indirect transfer of Indian assets before May 2012 would be "nullified on fulfillment of specified conditions" such as the withdrawal of pending litigation and an undertaking that no damages claims would be filed.
  - It also proposes to refund the amount paid by companies facing trial in these cases without interest thereon.

CONDITIONS APPLY

The new bill says tax claims made on offshore transactions executed prior to 28 May 2012 will be nullified, subject to riders. The status of such demands at a glance:

<table>
<thead>
<tr>
<th>Status of retrospective tax demands</th>
<th>Arbitration awards (in ₹ crore)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessment pending on account of court stay order</td>
<td>Cairn Energy Plc</td>
</tr>
<tr>
<td>Total demands</td>
<td>10,400*</td>
</tr>
<tr>
<td></td>
<td>Vodafone Group Plc</td>
</tr>
<tr>
<td></td>
<td>12,600 including interest</td>
</tr>
<tr>
<td></td>
<td>15,000* in costs**</td>
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<tr>
<td></td>
<td>*plus an equal amount in penalty, accrued interest</td>
</tr>
<tr>
<td></td>
<td>**updated demand in 2017</td>
</tr>
<tr>
<td></td>
<td>**plus ₹6 crore tax refund if award is not contested, India has appealed the award.</td>
</tr>
</tbody>
</table>

Source: Mint Research

LEGISLATIVE CHANGE

MOVE will help close past disputes, avoid future litigation costs; THE.govt proposes to refund only the principal, not interest.

SARVESH KUMAR SHARMA/MINT

- Significance of the Bill:
  - The bill marks a step in the direction of addressing the long-pending demand of foreign investors seeking the removal of retrospective tax for the sake of better tax clarity.
  - This would help in establishing an investment-friendly business environment, which can increase economic activity and help raise more revenue over time for the government.
  - This could help restore India's reputation and improve ease of doing business.
Retrospective Taxation
- It allows a country to pass a rule on taxing certain products, items or services and deals and charge companies from a time behind the date on which the law is passed.
- Countries use this route to correct any anomalies in their taxation policies that have, in the past, allowed companies to take advantage of such loopholes.
- Retrospective Taxation hurts companies that had knowingly or unknowingly interpreted the tax rules differently.
- Apart from India, many countries including the USA, the UK, the Netherlands, Canada, Belgium, Australia and Italy have retrospectively taxed companies.

Capital Gain
- This gain or profit comes under the category of ‘income’.
- Hence, the capital gain tax will be required to be paid for that amount in the year in which the transfer of the capital asset takes place. This is called the capital gains tax, which can be both short-term or long-term.
  - **Long-term Capital Gains Tax**: It is a levy on the profits from the sale of assets held for more than a year. The rates are 0%, 15%, or 20%, depending on the tax bracket.
  - **Short-term Capital Gains Tax**: It applies to assets held for a year or less and is taxed as ordinary income.
- Capital gains can be reduced by deducting the capital losses that occur when a taxable asset is sold for less than the original purchase price. The total of capital gains minus any capital losses is known as the “net capital gains”.
- **Capital assets** are significant pieces of property such as homes, cars, investment properties, stocks, bonds, and even collectibles or art.

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**e-RUPI: Voucher Based Digital Payment System**

**Why in News**
The Indian government is going to launch an electronic voucher based digital payment system e-RUPI.

- There are already many countries using the voucher system for example the US, Colombia, Chile, Sweden, Hong Kong, etc.

  - **e-RUPI**: It is a cashless and contactless instrument for digital payment developed by National Payments Corporation of India.
  - Connects sponsors of the services with beneficiaries & service providers in a digital manner without any physical interface.
  - Assures timely payment without involvement of any intermediary.
  - It can also be used for delivering services meant for providing drugs & nutritional support under Mother & Child welfare schemes, TB eradication programmes, etc.

**Key Points**
- **e-RUPI**:
  - It is a cashless and contactless method for digital payment. It is a Quick Response (QR) code or SMS string-based e-voucher, which is delivered to the mobile of the users.
  - The users will be able to redeem the voucher without needing a card, digital payments app, or internet banking access, at the service provider.
  - It connects the sponsors of the services with the beneficiaries and service providers in a digital mode without any physical interface.
  - The mechanism also ensures that the payment to the service provider is made only after the transaction is completed.
  - The system is pre-paid in nature and hence, assures timely payment to the service provider without the involvement of any intermediary.
- **Different from Virtual Currency**:
  - In effect, e-RUPI is still backed by the existing Indian rupee as the underlying asset and specificity of its purpose makes it different to a virtual currency and puts it closer to a voucher-based payment system.
- **Issuing Entities & Beneficiary Identification**:
  - The one-time payment mechanism has been developed by the National Payments Corporation of India on its Unified Payments Interface (UPI) platform, in collaboration with the Department of Financial Services, Ministry of Health & Family Welfare, and National Health Authority.
It has boarded banks that will be the issuing entities. Any corporate or government agency will have to approach the partner banks, which are both private and public-sector lenders, with the details of specific persons and the purpose for which payments have to be made.

The beneficiaries will be identified using their mobile number and a voucher allocated by a bank to the service provider in the name of a given person would only be delivered to that person.

Uses:

Government Sector:
- It is expected to ensure a leak-proof delivery of welfare services and can also be used for delivering services under schemes meant for providing drugs and nutritional support under Mother and Child welfare schemes, drugs & diagnostics under schemes like Ayushman Bharat Pradhan Mantri Jan Arogya Yojana, fertiliser subsidies etc.

Private Sector:
- Even the private sector can leverage these digital vouchers as part of their employee welfare and Corporate Social Responsibility (CSR) programmes.

Significance:
- The government is already working on developing a Central Bank Digital Currency and the launch of e-RUPI could potentially highlight the gaps in digital payments infrastructure that will be necessary for the success of the future digital currency.

Future of Digital Currency in India: According to the Reserve Bank of India (RBI), there are at least four reasons why digital currencies are expected to do well in India:
- Increasing Penetration: There is increasing penetration of digital payments in the country that exists alongside sustained interest in cash usage, especially for small value transactions.
- High Currency to GDP Ratio: India’s high currency to Gross Domestic Product (GDP) ratio holds out another benefit of CBDCs.
- Cash-to-GDP Ratio or Currency in Circulation (CIC) to GDP Ratio or simply currency-to-GDP ratio shows the value of cash in circulation as a ratio of GDP.

Spread of Virtual Currencies: The spread of private virtual currencies such as Bitcoin and Ethereum may be yet another reason why CBDCs become important from the point of view of the central bank.

Will Act as a Cushion: Central bank digital currencies might also cushion the general public in an environment of volatile private virtual currencies.

Pradhan Mantri Kisan SAMPADA Yojana

Why in News
Recently, the Ministry of Food Processing industries (MoFPI) has shared some information regarding Pradhan Mantri Kisan SAMPADA Yojana (PMKSY).
- Earlier, MoFPI had launched the Pradhan Mantri Formalisation of Micro food processing Enterprises (PM FME) Scheme, under the Atmanirbhar Bharat Abhiyan.
- The key sub-segments of the Food Processing industry in India are Dairy, Fruits & Vegetables, Poultry & Meat processing, Fisheries, Food retail, etc.

Key Points
- About:
  - In the year 2016, MoFPI had introduced an umbrella Scheme Called “Agro-Marine Processing and Development of Agro-Processing Clusters” or SAMPADA, which was proposed to be implemented with an allocation of Rs 6,000 crore for the period of 2016-20.
  - In the year 2017, the government renamed the SAMPADA scheme as Pradhan Mantri Kisan Sampada Yojana (PMKSY).
  - It is a Central Sector Umbrella Scheme.
- Objective:
  - To supplement agriculture.
  - To create processing and preservation capacities.
  - To modernise and expand existing food processing units with a view to increasing the level of processing.
  - To add value leading to the reduction of wastage.
- Components:
  - Mega Food Parks,
  - Integrated Cold Chain and Value Addition Infrastructure,
Infrastructure for Agro-Processing Clusters,
- Creation of Backward and Forward Linkages,
- Creation/Expansion of Food Processing & Preservation Capacities,
- Food Safety and Quality Assurance Infrastructure, and
- Human Resources Institutions.
- **Operation Greens.**

**Grants-in-aid:**
- MoFPI provides mostly credit linked financial assistance (capital subsidy) in the form of grants-in-aid to entrepreneurs for setting up of food processing / preservation industries.
- Grants-in-aid ranging from 35% to 75% of the eligible project cost subject to a maximum specified limit is provided to investors under the various schemes for undertaking infrastructure, logistic projects and setting up of food processing units in the country.

**Benefits:**
- The sanctioned projects across the country under component schemes of PMKSY are estimated to benefit about 34 lakh farmers on completion.
  - In an evaluation study, NABARD (National Bank for Agriculture and Rural Development) in Year 2020, estimated that captive projects under the scheme have resulted in an increase in farm-gate prices by 12.38% and each project is estimated to benefit more than 9500 farmers.

**Other Related Initiatives**

- **100% FDI:**
  - 100% Foreign Direct Investment (FDI) through automatic route in the food processing sector and 100% FDI under Government approval route for retail trading, including through e-commerce, in respect of food products produced and/or manufactured in India has been permitted.

- **Food Processing Fund:**
  - A special fund of Rs. 2000 crore has been created with the NABARD to provide affordable credit to food processing projects/units.

- **Classification under PSL:**
  - Food & agro-based processing units and cold chain infrastructure has been classified as agriculture activity for Priority Sector Lending (PSL).

**Fiscal Measures:**
- Fiscal measures like 100% exemption of Income Tax on profit for new food processing units, 100% income tax exemption from profit derived by Farmers Producers Organizations (FPOs) having annual turnover of Rs. 100 crore have been allowed for activities such as post-harvest value addition to agriculture.

**Lower GST:**
- Lower Goods & Service Tax (GST) rates for the majority of food products have been fixed.

**Operation Greens:**
- A new Central Sector Scheme “Operation Greens” for integrated development of Tomato, Onion and Potato (TOP) crops value chain, with an outlay of Rs.500 Crore to promote FPOs, agri-logistics, processing facilities, has been launched.

**PM FME:**
- All India Centrally Sponsored PM Formalisation of Micro food processing Enterprises Scheme (PM FME Scheme) for providing financial, technical and business support for upgradation of existing micro food processing enterprises.

**PLI Scheme:**
- The Central Sector Scheme – “Production Linked Incentive Scheme for Food Processing Industry (PLISFPI)” to support creation of global food manufacturing champions commensurate with India’s natural resource endowment and support Indian brands of food products in the international markets with an outlay of Rs.10900 crore.

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**National Mission on Edible Oil-Oil Palm**

**Why in News**

Recently, the Prime Minister has announced a new national initiative on palm oil production to help increase farm incomes.

- The scheme, called National Edible Oil Mission-Oil Palm (NMEO-OP), for self-reliance in edible oil involves investment of over Rs. 11,000 crore (over a five year period).

**Key Points**

- Aims:
To harness domestic edible oil prices that are dictated by expensive palm oil imports.

- To raise the domestic production of palm oil by three times to 11 lakh MT by 2025-26.
  - This will involve raising the area under oil palm cultivation to 10 lakh hectares by 2025-26 and 16.7 lakh hectares by 2029-30.

**Features:**
- The special emphasis of the scheme will be in India’s north-eastern states and the Andaman and Nicobar Islands due to the conducive weather conditions in the regions.
- Under the scheme, oil palm farmers will be provided financial assistance and will get remuneration under a price and viability formula.

**Significance of the Scheme:**
- **Reduction in Import dependance:**
  - It is expected to incentivise production of palm oil to reduce dependence on imports and help farmers cash in on the huge market.
  - India is the largest consumer of vegetable oil in the world. Of this, palm oil imports are almost 55% of its total vegetable oil imports.
- **Rise in Yields:**
  - India produces less than half of the roughly 2.4 crore tonnes of edible oil that it consumes annually. It imports the rest, buying palm oil from Indonesia and Malaysia, soyoil from Brazil and Argentina, and sunflower oil, mainly from Russia and Ukraine.
  - In India, 94.1% of its palm oil is used in food products, especially for cooking purposes. This makes palm oil extremely critical to India’s edible oils economy.

**Palm Oil**
- Palm oil is currently the world’s most consumed vegetable oil.
- It is used extensively in the production of detergents, plastics, cosmetics, and biofuels.
- Top consumers of the commodity are India, China, and the European Union (EU).

**Edible Oil Economy**
- There are two major features, which have significantly contributed to the development of this sector. One was the setting up of the Technology Mission on Oilseeds in 1986 which was converted into a National Mission on Oilseeds and Oil Palm (NMOOP) in 2014.
  - Further it was merged with NFSM (National Food Security Mission).
- This gave a thrust to Government’s efforts for augmenting the production of oilseeds. This is evident by the very impressive increase in the production of oilseeds from about 11.3 million tons in 1986-87 to 33.22 million tons in 2019-20.
- The other dominant feature which has had significant impact on the present status of edible oilseeds/oil industry has been the program of liberalization under which the Government’s economic policy allows greater freedom to the open market and encourages healthy competition and self regulation rather than protection and control.
- The Yellow Revolution is one of the colour revolutions that was launched to increase the production of Edible oilseeds in the country to meet domestic demand.
- The government has also launched the Kharif Strategy 2021 for oilseeds.
  - It will bring an additional 6.37 lakh hectare area under oilseeds and is likely to produce 120.26 lakh quintals of oilseeds and edible oil amounting to 24.36 lakh quintals.
- Oils Commonly Used in India: Groundnut, mustard, rapeseed, sesame, safflower, linseed, niger seed, castor are the major traditionally cultivated oilseeds.
  - Soybean and sunflower have also assumed importance in recent years.
  - Coconut is most important amongst the plantation crops.

**Atmanirbhar Narishakti Se Samvad**

**Why in News**
- Recently, Prime Minister (PM) of India participated in ‘Atmanirbhar Narishakti se Samvad’ and interacted with women Self Help Group (SHG) members promoted under the Deendayal Antyodaya Yojana-National Rural Livelihoods Mission (DAY-NRLM).

**Key Points**
- Highlights of the Conference:
The PM lauded the Self-Help Groups of women for their unprecedented services during the Covid-19 period.

- For example, women’s unparalleled contribution in making masks and sanitizers and providing food to the needy and spreading awareness.

The PM released support funds to SHGs, for PM Formalisation of Micro Food Processing Enterprises (PM FME) Scheme and for Farmer Producer Organizations (FPOs).

The PM also announced that now the limit for loans available to SHGs without guarantee has been doubled to Rs 20 lakh.

In the pursuit of making the country free from single use plastic, SHGs can play an important role.

- SHGs can raise awareness about single use plastic and work for its alternative.
- In this context, SHGs can take full advantage of the online Government e-marketplace.

**About Self-Help Groups (SHGs):**

- SHGs are informal associations of people who choose to come together to find ways to improve their living conditions.
- It can be defined as a self governed, peer controlled information group of people with similar socio-economic background and having a desire to collectively perform common purpose.
- Villages face numerous problems related to poverty, illiteracy, lack of skills, lack of formal credit etc. These problems cannot be tackled at an individual level and need collective efforts.
- Thus SHG can become a vehicle of change for the poor and marginalized. SHG relies on the notion of “Self Help” to encourage self-employment and poverty alleviation.

In 1999, Government of India, introduced Swarn Jayanti Gram Swarozgar Yojana (SGSY) to promote self-employment in rural areas through formation and skilling of SHGs. The programme evolved as a national movement in 2011 and became National Rural Livelihoods Mission (NRLM).

**Other Initiatives to Promote SHGs:**

- Agriculture Infrastructure Fund
- PM Formalization of Micro Food Processing Enterprises (PM FME) Scheme
- Pradhan Mantri Matsya Sampada Yojana (PMMSY)
- Ambedkar Hastshilp Vikas Yojana (AHVY)
- North East Rural Livelihood Project
- Scheme for promotion of Women SHGs (WSHGs) in backwards & LWE (Left Wing Extremism) districts of India.

The Ministry of Housing & Urban Affairs has launched ‘SonChiraiya’ – (A brand and logo)- for marketing of urban SHG products. It also implements DAY-NULM (National Urban Livelihoods Mission).

**Government Initiatives for Women Empowerment in Various Fields:**

- Agriculture and Agro-Based Industry:
  - Under the new farm laws, women self help groups have no restriction on how much they can store.
  - Self help groups have the option whether to sell produce directly from the farm or by setting up a food processing unit and sell with great packaging.

- Financial Inclusion:
  - Jan Dhan Accounts: With more than 42 crore Jan Dhan accounts of which close to 55% of the accounts are of women.
  - DAY-NRLM: It envisages universal social mobilization by inter alia organising one-woman members from each rural poor household into Self Help Groups (SHGs).

- Panchayats:
  - Mahila Sabhas in Gram Panchayat
  - Rashtriya Gram Swaraj Abhiyan (RGSA)

- In Education:
  - Vigyan Jyoti Scheme
  - GATI Scheme
  - KIRAN Scheme
  - Beti Bachao Beti Padhao Scheme

- In Entrepreneurship:
  - Mahila e-haat
  - Women Entrepreneurship Platform (WEP)
  - Support to Training and Employment Programme for Women (STEP) Scheme
  - New Labour Code
  - The Prevention of Sexual Harassment At Workplace Act, 2013
Other Initiatives:
- National Creche Scheme
- One Stop Centre Scheme
- Scheme for Adolescent Girls (SAG)’ across the country
- POSHAN Abhiyaan
- Ujjwala Yojana

Vacancies in Consumer Disputes Redressal Commissions

Why in News
Recently, the Supreme Court, has expressed displeasure over delay in filling up vacancies in the National Consumer Disputes Redressal Commission and State Consumer Disputes Redressal Commissions.
- It directed the centre and states to complete the process within eight weeks.

Key Points
- About:
  - The court was hearing a suo motu case on inaction in appointing president and members/staff of Districts and State Consumer Disputes Redressal Commission and inadequate infrastructure across India.
  - It highlighted that vacancies are hurting consumers by delaying redressal of disputes.
  - The Court also asked the Centre to submit a report on legislative impact study on Consumer Protection Act, 2019 in four weeks time.
  - It’s the third time in two weeks that the Supreme Court has voiced its concern regarding vacancies across courts, tribunals and dispute resolution bodies in India.
- About National Consumer Disputes Redressal Commission:
  - The National Consumer Disputes Redressal Commission (NCDRC) is a quasi-judicial commission in India which was set up in 1988 under the Consumer Protection Act of 1986.
  - Its head office is in New Delhi.
  - The commission is headed by a sitting or retired judge of the Supreme Court of India.

The Consumer Protection Act of 1986 provided for a three-tier consumer dispute redressal machinery at the National (National Consumer Disputes Redressal Commission), State and District levels.
- The Consumer Protection Act, 2019 establishes the Central Consumer Protection Authority (CCPA) whose primary objective will be to promote, protect and enforce the rights of consumers.

About Legislative Impact Study:
- Legislative Impact Study or Assessment is the study of the impact of a law (being made and enforced) on the society over a period of time.
- It is a method of estimating the likely impacts of legislative proposals and government policies, before and after they are adopted and enacted.
  - For example, what impact would it have on the litigation, what is the kind of manpower required, what is the infrastructure required.
  - It compares them with different policy designs to determine which policy produces the best result.
  - The responsibility of Parliament after a law is made is not over. It has to confirm whether the intended objectives and needs of the law are achieved or not.

Annual Public Enterprises Survey

Why in News
Recently, the 60th Public Enterprises (PE) Survey 2019-20 was released by the Department of Public Enterprises (DPE), Ministry of Finance.
It is the single largest source of information on Central Public Sector Enterprises (CPSEs) and acts as a basis for informed policy making.

The government has reallocated the Department of Public Enterprises (DPE) to the finance ministry from the ministry of heavy industries.

**Key Points**

- About Public Enterprises (PE) Survey:
  - PE Survey is a **100%** enumeration of the CPSE universe. It captures essential statistical data for all CPSEs on various financial and physical parameters.
  - PE Survey divides CPSEs into **five sectors** namely:
    - Agriculture,
    - Mining & Exploration,
    - Manufacturing, Processing & Generation,
    - Services,
    - Enterprises Under Construction.
  - The Department of Public Enterprises (DPE) started bringing out the Public Enterprises Survey from the financial year **1960-61** on the recommendations of the **Estimates Committee** of the 2nd Lok Sabha, 73rd report (1959-60).

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<table>
<thead>
<tr>
<th>Category</th>
<th>Launch</th>
<th>Criteria</th>
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<tr>
<td>Maharatna</td>
<td>Maharatna Scheme was introduced for CPSEs in May, 2010, in order to empower mega CPSEs to expand their operations and emerge as global giants.</td>
<td>Having Navratna status. Listed on Indian stock exchange with minimum prescribed public shareholding under Securities and Exchange Board of India (SEBI) regulations. An average annual turnover of more than Rs. 25,000 crore during the last 3 years. An average annual net worth of more than Rs. 15,000 crore during the last 3 years. An average annual net profit after tax of more than Rs. 5,000 crore during the last 3 years. Should have significant global presence/international operations.</td>
<td>Bharat Heavy Electricals Limited, Bharat Petroleum Corporation Limited, Coal India Limited, GAIL (India) Limited, etc.</td>
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<td>Navratna</td>
<td>Navratna Scheme was introduced in 1997 in order to identify CPSEs that enjoy comparative advantages in their respective sectors and to support them in their drive to become global players.</td>
<td>The Miniratna Category – I and Schedule ‘A’ CPSEs, which have obtained ‘excellent’ or ‘very good’ rating under the Memorandum of Understanding system in three of the last five years, and have composite score of 60 or above in the six selected performance parameters, namely, Net profit to net worth. Manpower cost to total cost of production/services. Profit before depreciation, interest and taxes to capital employed. Profit before interest and taxes to turnover. Earning per share. Inter-sectoral performance.</td>
<td>Bharat Electronics Limited, Hindustan Aeronautics Limited, etc.</td>
</tr>
<tr>
<td>Miniratna</td>
<td>Miniratna scheme was introduced in 1997 in pursuance of the policy objective to make the public sector more efficient and competitive and to grant enhanced autonomy and delegation of powers to the profit-making public sector enterprises.</td>
<td>Miniratna Category-I: The CPSEs which have made profit in the last three years continuously, pre-tax profit is Rs.30 crores or more in at least one of the three years and have a positive net worth are eligible to be considered for grant of Miniratna-I status. Miniratna Category-II: The CPSEs which have made profit for the last three years continuously and have a positive net worth are eligible to be considered for grant of Miniratna-II status. Miniratna CPSEs should have not defaulted in the repayment of loans/interest payment on any loans due to the Government. Miniratna CPSEs shall not depend upon budgetary support or Government guarantees.</td>
<td>Category-I: Airports Authority of India, Antrix Corporation Limited, etc. Category-II: Artificial Limbs Manufacturing Corporation of India, Bharat Pumps &amp; Compressors Limited, etc.</td>
</tr>
</tbody>
</table>
About DPE And CPSEs:

- DPE is the nodal department for all the Central Public Sector Enterprises (CPSEs) and formulates policy pertaining to CPSEs.
- According to DPE, CPSEs mean those Government companies, besides Statutory Corporations, wherein more than 50% of the share in equity is held by the Central Government.
  - The subsidiaries of these companies, if registered in India, are also categorized as CPSEs.
  - It does not cover departmentally run public enterprises, banking institutions and insurance companies.
- CPSEs are classified into 3 categories namely Maharatna, Navratna and Miniratna.
  - Presently, there are 10 Maharatna, 14 Navratna and 74 Miniratna CPSEs.

Role of Central Public Sector Enterprises:

- CPSEs in India have a twin objective of commercial efficiency and social responsibility.
  - Besides contributing to the Government income, they discharge social obligations through their Corporate Social Responsibility (CSR) activities.
- The idea of CPSEs was conceived to eradicate the accumulated problems of:
  - Unemployment,
  - Rural-urban disparity,
  - Inter-regional and inter-class disparities,
  - Technological backwardness.
- CPSEs envisage to develop the public sector as an instrument for self-reliant economic growth.
- Before India got independence, it had only a few CPSEs.
  - These included the Railways, Post and Telegraph, Port trusts, Ordnance factories, etc.
  - Most CPSEs were set up after independence when the private sector had limited capacity for large capital intensive enterprises.
- Challenge: The challenge for these enterprises arises out of the need for them to ensure a reasonable return on investment, while discharging their constitutional and social obligations.

Atmanirbhar Bharat Abhiyaan - Contribution by CPSEs:

- The CPSEs have taken a range of initiatives as part of the Atmanirbhar Bharat Abhiyaan towards meeting the Government of India’s ‘self-reliant India’ agenda.
  - The initiatives include policy reforms, strategic partnerships, administrative actions, operational realignment and capacity building.
- The initiatives by the CPSEs can be divided under five broad categories as shown below:
  - Enhancing local capacity to support Government’s larger strategic objectives.
  - Promotion of cooperation between CPSEs to explore synergies.
  - Providing a platform for greater participation of domestic firms/MSMEs.
  - Rationalising import dependency to ensure long term sustainability.
  - Development of indigenous technology and promoting technology transfer to CPSEs.

Core Sectors Output

Why in News

Output at India’s eight core sectors grew by 8.9% in June 2021 largely due to Base Effect but the pace remained below the production levels seen before the Covid-19 pandemic as well as its second wave.

Key Points

- About Eight Core Sectors:
  - These comprise 40.27% of the weight of items included in the Index of Industrial Production (IIP).
  - The eight core sector industries in decreasing order of their weightage: Refinery Products> Electricity> Steel> Coal> Crude Oil> Natural Gas> Cement> Fertilizers.
- Base Effect:
  - The base effect refers to the effect that the choice of a basis of comparison or reference can have on the result of the comparison between data points.
  - For example, the base effect can lead to an apparent under- or overstatement of figures such as inflation rates or economic growth rates if the point chosen for comparison has an unusually high or low value relative to the current period or the overall data.
  - Production of coal, natural gas, refinery products, steel, cement and electricity jumped by 7.4%,
20.6%, 2.4%, 25%, 4.3% and 7.2%, respectively, in June 2021, as against (-) 15.5%, (-) 12%, (-) 8.9%, (-) 23.2%, (-) 6.8% and (-) 10% in the same month last year.

- **Index of Industrial Production:**
  - IIP is an indicator that measures the changes in the volume of production of industrial products during a given period.
  - It is compiled and published monthly by the National Statistical Office (NSO), Ministry of Statistics and Programme Implementation.
  - It is a composite indicator that measures the growth rate of industry groups classified under:
    - **Broad sectors**, namely, Mining, Manufacturing, and Electricity.
  - **Base Year** for IIP is 2011-2012.
  - **Significance of IIP:**
    - It is used by government agencies including the Ministry of Finance, the Reserve Bank of India, etc, for policy-making purposes.
    - IIP remains extremely relevant for the calculation of the quarterly and advance GDP (Gross Domestic Product) estimates.

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**Open Acreage Licensing Programme**

*Why in News*

In an attempt to **boost domestic hydrocarbon production**, the petroleum and natural ministry launched the sixth bid round under the liberal **Open Acreage Licensing Programme (OALP)**.

- Earlier, the Cabinet Committee on Economic Affairs (CCEA) approved the **Policy framework on reforms** in the exploration and licensing sector for enhancing domestic exploration and production of oil and gas.

*Key Points*

- **About:**
  - The **Hydrocarbon Exploration and Licensing Policy (HELP)** replacing the erstwhile **New Exploration Licensing Policy (NELP)** was approved in March 2016 and the **Open Acreage Licensing Policy (OALP)** along with the **National Data Repository (NDR)** were launched in June 2017 as the key drivers to accelerate the **Exploration and Production (E&P) activities** in India.
  - Under OALP, **companies are allowed** to carve out areas they want to explore oil and gas in.
  - Companies can put in an **expression of interest (EOI)** for any area throughout the year but such interests are accumulated thrice in a year. The areas sought are then offered for bidding.
  - This policy is different from the past where the government identified areas and offered them for bidding.

- **Need of the Policy:**
  - India is one of the fastest growing major economies in the world and the **third largest consumer of petroleum products** after the US and China.
  - India is heavily dependent on import of crude oil to meet its energy needs.
  - **Net imports of crude oil** have increased from 111.50 metric tons during 2006-07 to 202.85 metric tons during 2015-16.

- In this backdrop, India has set a target to reduce dependence on crude oil imports by 10% by 2022.

- **Benefits:**
  - **Increase in Exploration:**
    - The successful roll-out of the HELP regime, followed by OALP Bid Rounds, has led to an increase in exploration acreages in India.
  - **Removing Red-Tapism:**
    - The OALP has helped in removing red-tapism and brought in a quantum jump in the Exploration & Production sector.

- **Concerns:**
  - **Fails to Attract Investors:**
    - The new policy has failed to attract interest from major players in the sector.
  - **Onerous obligations:**
    - The OALP provides for discretionary powers to the **Directorate General of Hydrocarbon (DGH)** to accept the area for which EOI has been submitted or alter/modify the area after due evaluation.
    - It oversees upstream oil and gas production.
• However, the **basis for exercise** of such discretion is **not provided under the OALP**.

**About HELP**

- **The Hydrocarbon Exploration & Licensing Policy (HELP)**, which adopts the **Revenue Sharing Contract model**, is a giant step towards improving the ‘Ease of Doing Business’ in the Indian Exploration and Production (E&P) sector.
- It comes with attractive and liberal terms like reduced royalty rates, no Oil Cess, marketing and pricing freedom, round the year bidding, freedom to investors for carving out blocks of their interest, a single license to cover both conventional and unconventional hydrocarbon resources, exploration permission during the entire contract period, and an easy, transparent and swift bidding and awarding process.
- **Bid Round-IV onwards**, bidding rounds are being carried out under the further **liberalized policy terms**, which focused on production maximization with higher weightage to Committed Work Programme in Category I basin and no revenue share bids required for less explored Category II & III basins.
- Category-I basins have established reserves and fields that are already producing while Category-II basins are ones that have contingent resources pending commercial production. Category-III basins are ones that have prospective resources awaiting discovery.

**Sovereign Right to Taxation**

**Why in News**

Recently, the Government of India introduced **The Taxation Laws (Amendment) Bill, 2021** in the Lok Sabha which **seeks to withdraw tax demands made using a 2012 retrospective legislation** to tax the indirect transfer of Indian assets.

- The government has stressed the need to establish its **sovereign right to taxation**.

**Key Points**

- **Sovereignty**:
  - Sovereignty, in political theory, means the **ultimate overseer, or authority, in the decision-making process** of the state and in the maintenance of order.
  - Derived from the Latin *superanus* through the French *souveraineté*, the term was **originally understood to mean the equivalent of supreme power**.
  - **Constitutional Sovereignty** implies that the constitution is sovereign and supreme.

- **Sovereign Right to Taxation in India**:
  - In India, the Constitution gives the government the right to levy taxes on individuals and organisations, but makes it clear that **no one has the right to levy or charge taxes except by the authority of law**.
  - Any tax being charged has to be backed by a law passed by the legislature or Parliament (Article 265).

- **Taxation in India**:
  - Tax is a **pecuniary burden laid upon individuals or property owners to support the government**, a payment exacted by legislative authority, and that a tax is **not a voluntary payment or donation, but an enforced contribution**, exacted pursuant to legislative authority.
  - Taxes in India come under a **three-tier system based on the Central, State and local governments**, and the **Seventh Schedule** of the Constitution puts separate heads of taxation under the **Union and State list**.
  - There is **no separate head under the Concurrent list**, meaning Union and the States have no concurrent power of taxation.

- **Limitation to States Sovereignty**:
  - The two most used **Bilateral Investment Treaties (BIT) provisions to challenge a state’s taxation measures are expropriation** and the **fair and equitable treatment** provision.
  - The tax should not be **discriminatory** and it should not be confiscatory.

**PM-KISAN**

**Why in News**

Recently, the Prime Minister released the **9th installment of financial benefit under Pradhan Mantri Kisan Samman Nidhi (PM-KISAN)**.

- Further, the Prime Minister also interacted with farmer beneficiaries during the event.
Key Points

➢ PM-KISAN:
  ○ About:
    • Under the scheme, the Centre transfers an amount of Rs 6,000 per year, in three equal instalments, directly into the bank accounts of all landholding farmers irrespective of the size of their land holdings.
    • It was launched in February 2019.
  ○ Funding and Implementation:
    • It is a Central Sector Scheme with 100% funding from the Government of India.
    • It is being implemented by the Ministry of Agriculture and Farmers Welfare.
  ○ Identification of Beneficiaries:
    • The entire responsibility of identification of beneficiary farmer families rests with the State/UT Governments.
  ○ Objectives:
    • To supplement the financial needs of the Small and Marginal Farmers in procuring various inputs to ensure proper crop health and appropriate yields, commensurate with the anticipated farm income at the end of each crop cycle.
    • To protect them from falling in the clutches of moneylenders for meeting such expenses and ensure their continuance in the farming activities.

➢ Highlights of the Prime Minister’s Address:
  ○ The Prime Minister launched a National Edible Oil Mission-Oil Palm (NMEO-OP) as a pledge for achieving self-reliance in edible oil.
  ○ For the first time, India has reached among the top-10 countries of the world in terms of agricultural exports.
  ○ Biggest ever purchase from farmers at Minimum Support Price (MSP), Rs 1,70,000 crore have reached directly into the accounts of rice farmers and about Rs. 85,000 crore to wheat farmers.
  ○ Small farmers are now being given utmost priority in the agricultural policies of the country.
    • Initiatives like Food Parks, Kisan Rails and Kisan Infrastructure Fund will help small farmers.
    • These steps increase the small farmer’s access to market and his bargaining power through Farmer Produce Organizations (FPOs).

➢ The Prime Minister touched upon initiatives like Mission Honey-Bee and making saffron from Jammu & Kashmir in the National Agricultural Cooperative Marketing Federation of India Limited (NAFED) shops.
  ○ Indian agriculture and farmers have a big role in determining the condition of India in 2047, when the country completes 100 years of independence.

➢ Other Initiatives for Farmers:
  ○ National Mission for Sustainable Agriculture
  ○ Pradhan Mantri Krishi Sinchayee Yojana
  ○ Rashtriya Krishi Vikas Yojana (RKVY)
  ○ Nutrient Based Subsidy (NBS) Programme
  ○ Rashtriya Gokul Mission
  ○ Pradhan Mantri Fasal Bima Yojana
  ○ Paramparagat Krishi Vikas Yojana

PSUs Exempted from Minimum Public Shareholding

Why in News

The Ministry of Finance has amended the Securities Contracts (Regulation) Rules, 1957 to exempt listed public sector companies from the minimum public shareholding norm.

Key Points

➢ The Amendment:
  ○ About:
    • The government can now exempt any listed public sector enterprise from the Minimum Public Shareholding (MPS) norm, which mandates at least 25% public float for all listed entities.
  ○ Rationale to the New Amendment:
    • The framework for the MPS has been revised to make it easier for large companies to launch IPOs (Initial Public Offers).
    • The move comes as the government prepares for the IPO of Life Insurance Corp (LIC) of India, likely to be the biggest listing ever.
  ○ Concerns:
    • Can Affect Liquidity in PSU Stocks:
      • Investors, especially foreign ones, are wary of investing in such stocks due to absence of liquidity – because of high promoter holding.
Can Impact Foreign Investment:
- Maintenance of minimum public float by listed companies helps attract higher foreign capital and increases India’s weight in international indices like MSCI (Morgan Stanley Capital International) and FTSE (Financial Times Stock Exchange).
- Government firms not adhering to these norms could be a drag on inflow of foreign capital.

Can Impact Strategic Disinvestment Program:
- This can be detrimental at a time the government is planning Strategic Sales in various PSUs including BPCL, Shipping Corporation, and Air India.
- Low free float is one of the reasons why PSU stocks command low valuation in the market.

Non-Uniform Governance Standards:
- Various government expert committees have in their reports argued all listed entities, government or private, should be treated at par on governance standards.

Minimum Public Shareholding (MPS):
- About:
  - The MPS (also called free float) rule requires all listed companies in India to ensure that at least 25% of their equity shares are held by non-promoters, i.e. public.
  - Public shareholders could be individual or financial institutions and they normally buy shares through public offer or secondary markets.
  - In order to bring more transparency in the working of listed companies, the concept of minimum public shareholding was introduced.
  - In 2010, SEBI amended the Securities Contracts Regulation Rules to insist on this 25% public float for private sector companies.
  - The average promoter holding in India is among the highest globally.
  - In the 2019-20 Budget, the government had proposed to increase the minimum public float from 25% to 35%.

Compliance Status:
- While the timeline for achieving 25% MPS for listed companies was 2013, the timeline for public sector companies i.e. PSUs and public sector banks (PSBs), were extended multiple times closer to the deadline due to lack of efforts from such companies towards compliance.
- The previous such extension granted them time till 2nd August, 2021 for compliance.
- With the latest amendment, the Central government has empowered itself to exempt selected public sector companies from the 25% MPS norm.

Significance:
- Adequate free float in a listed company is essential for providing sufficient liquidity in trading stocks thereby facilitating efficient price discovery and maintaining market integrity.
- Public float ensures that there is lesser price manipulation in the stock.
- Forcing promoters to relax their grip on listed companies can improve corporate governance by giving public shareholders and institutions greater say in corporate actions.
- There are very few investment opportunities in the stock market and so forcing promoters to sell shares would improve the supply of shares.

SEBI
- SEBI is a statutory body established in April, 1992 in accordance with the provisions of the Securities and Exchange Board of India Act, 1992.
- The basic functions of the Securities and Exchange Board of India is to protect the interests of investors in securities and to promote and regulate the securities market.

Listed Companies
- “Listed” is a term that describes a company that is included and on a given stock exchange (such as NSE, BSE) so that its stock can be traded.

Central Public Sector Enterprises
- Central Public Sector Enterprises (CPSEs) are those companies in which the direct holding of the Central Government or other CPSEs is 51% or more
- As on 31st March 2019, there were 348 CPSEs (excluding insurance companies). Of these, 86 enterprises were yet to commence commercial operations and 13 CPSEs are under closure/liquidation. Remaining 249 were operating enterprises (including 180 scheduled CPSEs).
The meaning of ‘promoter’ and ‘promoter group’ is defined in Companies Act, 2013 and SEBI (ICDR) Regulations, 2018.

Generally, a promoter conceives an idea for setting-up a particular business at a given place and performs various formalities required for starting a company.

### Primary Market and Secondary Market
- The primary market is where securities are created, while the secondary market is where those securities are traded by investors.
- In the primary market, companies sell new stocks and bonds to the public for the first time, such as with an initial public offering (IPO).
- The secondary market is basically the stock market and refers to the New York Stock Exchange, the Nasdaq, and other exchanges worldwide.

### Stock Liquidity
- Liquidity generally refers to how easily or quickly a security can be bought or sold in a secondary market. Liquid investments can be sold readily and without paying a hefty fee to get money when it is needed.

### New Framework for Payment Systems Operators

#### Why in News
Recently, the Reserve Bank of India (RBI) has issued a framework for payment and settlement related activities by payment system operators.

- This framework is issued under provisions of Payment and Settlement Systems Act, 2007.
- The Payment and Settlement Systems Act, 2007 provides for the regulation and supervision of payment systems in India and designates the RBI as the authority for that purpose and all related matters.

#### Key Points
- **New Framework:**
  - Licensed non-bank Payment System Operators (PSOs), cannot outsource core management functions.

### Payment System
- A payment system is a system used to settle financial transactions through the transfer of monetary value and consist of the various mechanisms that facilitate the transfer of funds from one party (the payer) to another (the payee).
- A payment system includes the participants (institutions) and the users (customers/clients), the rules and regulations that guide its operation and the standards and technologies on which the system operates.
- The Board for Regulation and Supervision of Payment and Settlement Systems (BPSS), a sub-committee of the Central Board of the RBI is the highest policy making body on payment systems in India.

### Payment System Operators (PSOs)
- PSOs by virtue of services they provide and the construct of models on which they operate, largely outsource their payment and settlement-related activities to various other entities.
- It is an institution which has been granted an authorisation for the operation of a payment system.

- Core management functions include risk management and internal audit, compliance and decision-making functions such as determining compliance with KYC norms.
- It will be applicable to all service providers, whether located in India or abroad.

#### Objective:
- To put in place minimum standards to manage risks in outsourcing of payment and settlement-related activities including tasks such as onboarding customers and IT-based services.

#### Need:
- There is a potential area of operational risk associated with outsourcing by payment system operators and participants of authorised payments systems.
- India’s tech ecosystem has seen several high-profile cyber attacks such as those at Juspay, Upstox and Mobikwik over the last year targeting customers’ payments data.

#### Related Previous Initiative:
- Earlier, the RBI has put in place restrictions with respect to investments in payment system operators (PSOs) by new entities from jurisdictions.

Note:

Promoter
- The meaning of ‘promoter’ and ‘promoter group’ is defined in Companies Act, 2013 and SEBI (ICDR) Regulations, 2018.
- Generally, a promoter conceives an idea for setting-up a particular business at a given place and performs various formalities required for starting a company.

Primary Market and Secondary Market
- The primary market is where securities are created, while the secondary market is where those securities are traded by investors.
- In the primary market, companies sell new stocks and bonds to the public for the first time, such as with an initial public offering (IPO).
- The secondary market is basically the stock market and refers to the New York Stock Exchange, the Nasdaq, and other exchanges worldwide.

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Note:
that have weak measures to deal with money laundering and terrorist financing activities.

Social Security Measures for Informal Workers

Why in News

Recently, the Parliamentary Standing Committee on Labour has released a report on the impact of the Covid-19 pandemic on rising unemployment and job loss.

The panel called on the government to improve social security measures and take measures like Direct transfer of money and urban employment guarantee scheme for informal sector workers.

Social Security

According to the International Labour Organisation (ILO), Social Security is a comprehensive approach designed to prevent deprivation, give assurance to the individual of a basic minimum income and to protect the individual from any uncertainties.

It is also comprised of two elements, namely:

- Right to a Standard of Living adequate for the health and well-being, including food, clothing, housing and medical care and necessary social services.
- Right to Income Security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond any person’s control.

Key Points

- Need for Social Security Measures:
  - Citing the Periodic Labour Force Survey (PLFS), the report said 90% of workers were in the informal sector, which is 419 million of the 465 million workers.
  - Informal workers in rural and urban areas have been hit the most due to the pandemic, because of the seasonality of their employment and lack of formal employee-employer relationship.
  - No survey data are available as yet on the impact of the second wave which has undisputedly been more severe than the first.
  - However, anecdotal evidence suggests that there would have been significant income losses particularly in the informal sector, pushing the vulnerables deeper into crisis.

- Moreover, the Covid-19 crisis in India has come in the backdrop of pre-existing high and rising unemployment.

- The consequential effects on loss of jobs, rising unemployment, indebtedness, nutrition, health and education of unorganised workers and their family members have the potential to cast a long shadow and irreparable damage.

Highlights of the Report:

- The pandemic has devastated the labour market, denting the employment scenario and threatening the survival of millions of workers and their families.

In this scenario, the committee recommended:

- Direct Benefit Transfer: Putting money in the bank accounts of the informal workers during adverse conditions like Covid-19.
  - It also suggests converting loans granted to street vendors under the PM-SVANidhi Scheme to direct cash grants.
- Universal Healthcare: Universal healthcare should be made a legal obligation of the government. This can be provided by mandatory health insurance to informal workers.
- MGNREGA Reforms: The budgetary allocation for MGNREGA should be increased and an urban jobs guarantee scheme on the lines of the MGNREGA should be implemented.
  - It suggests increasing maximum days of work guaranteed under MGNREGA from 100 days to 200.
- Enhancing Employment Opportunities: Leveraging investments into the traditional sectors, strengthening the ‘Make in India’ mission and intensifying further infusion of technology into various sectors would provide enhanced local and pan-India employment opportunities.

Initiatives Already Taken to Support Informal Sector:

- Pradhan Mantri Shram Yogi Maan-dhan (PM-SYM)
- Labour Reforms
- Pradhan Mantri Rojgar Protsahan Yojana (PMRPY)
PM SVANidhi: Micro Credit Scheme for Street Vendors
Atmanirbhar Bharat Abhiyan
Deendayal Antyodaya Yojana National Urban Livelihoods Mission
PM Garib Kalyan Ann Yojana (PMGKAY)
One Nation One Ration Card
Atmanirbhar Bharat Rozgar Yojana
Pradhan Mantri Kisan Samman Nidhi
World Bank Support to India’s Informal Working Class

Supreme Court Judgement in Welfare of Informal Sector Workers:

Registration of Migrant Workers: The SC has directed the Central Government and the State Governments to complete the registration process of unorganized workers so that they can avail the welfare benefits given under various government schemes.

Ruling on ONORC System: The SC directed all states and Union Territories (UT) to implement the One Nation, One Ration Card (ONORC) system by 31st July 2021.
- The scheme allows migrant labourers covered under the National Food Security Act (NFSA) to access food at any fair price shop with his or her ration card in any part of the country.
**Indo-US Nuclear-Deal**

**Why in News**

Recently, the former foreign secretary of India, Vijay Gokhale in his book claimed that the Left parties in India were influenced by China in their decision to oppose the Indo-US nuclear deal.

- Although with the Indo-US nuclear agreement, India got a special Nuclear Supplier Group (NSG) waiver, the progress of Greenfield projects is slow.

**Greenfield Projects**

- A greenfield project is one which is not constrained by prior work.
- It is constructed on unused land where there is no need to remodel or demolish an existing structure. Such projects are often covered by engineers.

**Nuclear Supplier Group**

- It is a group of nuclear supplier countries that seeks to contribute to the non-proliferation of nuclear weapons through the implementation of two sets of Guidelines for nuclear exports and nuclear-related exports.
- It was created following the explosion in 1974 of a nuclear device by a non-nuclear-weapon State (India), which demonstrated that nuclear technology transferred for peaceful purposes could be misused.
- The grouping has 48 participating governments and the NSG Guidelines are implemented by each member in accordance with its national laws and practices. The NSG takes decisions by consensus.

**Key Points**

- **Background:**
  - The U.S. long considered India to be the leader of the non-aligned camp (Non-Aligned Movement) and held that it was tilting toward the USSR and, later, toward Russia.
  - India purchased most of its weapons from Russia, and it had a pseudo-socialist economic regime.
  - The U.S. tilted toward Pakistan throughout the Cold War and in the years that followed.
  - However, following the rise of China, the George W.Bush administration (US) decided to lure India into the West’s camp and draw on it to help contain China.
  - The US therefore offered India civil nuclear technology and access to uranium, the fuel it needed for nuclear power reactors.
  - The Indian government agreed to sign a 123 Agreement (or the U.S.-India Civil Nuclear Agreement).
  - The Indo-US nuclear cooperation agreement was signed in 2008, that gave a fillip to the ties between the two nations, which since then have been on an upswing.

- **Indo-US Nuclear Deal:**
  - NSG Waiver: A major aspect of the Indo-US nuclear deal was the Nuclear Suppliers Group (NSG) gave a special waiver to India that enabled it to sign cooperation agreements with a dozen countries.
Separate Programmes: It enabled India to separate its civilian and military programmes and placed its civilian nuclear facilities under the International Atomic Energy Agency (IAEA) safeguards.

Transfer of Technology: It refrains India from transfer of enrichment and reprocessing technologies to states that do not have them and India should also support international efforts to limit their spread.

Benefits of the Deal:

Deals with Other Countries:
- Post waiver, India signed nuclear cooperation agreements for peaceful means with the US, France, Russia, Canada, Argentina, Australia, Sri Lanka, United Kingdom, Japan, Vietnam, Bangladesh, Kazakhstan and Korea.
- Following the pacts, there have been specific agreements for import of uranium from France, Kazakhstan, Australia, Canada and Russia.

Recognition to India:
- It gave India the recognition of being a responsible nuclear weapon state with strong non-proliferation credentials.

Strengthened Indo-US Relations:
- It gave a fillip to the ties between the two nations, which since then have been on an upswing.
- It also gave fillip to military cooperation leading to expanded defence trade; increased energy cooperation, including on renewables technology since 2014.

Technological Development:
- India developed Pressurised Heavy Water Reactors (PHWRs), which are currently the backbone of the Indian nuclear power generation.
  - PHWR is a nuclear power reactor, commonly using unenriched natural uranium as its fuel. It uses heavy water (Deuterium oxide D_2O) as its coolant and moderator.
- Increased Uranium Import:
  - The Indo-US nuclear deal enabled India to import Uranium from different countries.

Issues:
- Liability:
  - Westinghouse went into major cost overruns leading to a financial crisis 2008-09.
  - Amidst this, the Westinghouse’s new buyers have already diluted the arrangement in India.
  - They will not construct the nuclear power project in India and will only supply reactors and components because of which it would take nearly another 10 years to construct a reactor in India.
  - Given this, in case of a Fukushima-type nuclear accident in India, the liability that U.S. companies would carry is highly uncertain.

India’s Requirements:
- India’s own requirements from the India-U.S. civil nuclear deal have changed considerably.
- Also India has also found much more comfort in its existing agreement with Russia’s Atomstroyexport.

Cost:
- Another issue relates to the cost that India is prepared to pay for nuclear energy through foreign collaborations.
- Indo-French negotiations for six 1,650 MW European Pressurised Reactors (EPRs) in Maharashtra’s Jaitapur are delayed over the differences between the Department of Atomic Energy and French electricity utility EDF which pertains to arriving at the cost per unit.

Present Status of Projects:
- The US has been discussing the sale of nuclear reactors to India since the 2008 pact, two subsequent agreements were signed only in 2016 and 2019.
- A project proposal to set up six reactors in collaboration with Westinghouse Electric Company (WEC) has been announced, but work is yet to begin.
- Another major project involving the French state-owned operator Areva, which was subsequently taken over by the French electricity utility EDF is also delayed.
- It has submitted an offer to Nuclear Power Corporation of India Limited to supply engineering studies and equipment for the construction of six reactors in Jaitapur, Maharashtra.
India Assumes UNSC Presidency

Why in News
Recently, India assumed the presidency of the United Nations Security Council (UNSC) for the month of August 2021.

➢ This will be the country's first presidency during its 2021-22 tenure as a non-permanent member of the Security Council.
➢ India began its two-year tenure as a non-permanent member of the UNSC in January 2021.

Key Points
➢ India’s UNSC Presidency:
  ○ India will decide the UN body’s agenda for the month and coordinate important meetings on a range of issues.
  ○ It is going to organise key events in three major areas of maritime security, peacekeeping and counter-terrorism.
    ● The Security Council will also have on its agenda several important meetings including Syria, Iraq, Somalia, Yemen, and the Middle East.
    ● The Security Council will also be adopting important resolutions on Somalia, Mali, & United Nations Interim Force in Lebanon.
  ○ Prime Minister (PM) Narendra Modi will be the first Indian PM to preside over a meeting of the UNSC.
    ● The last time an Indian PM was engaged in this effort was the then PM PV Narasimha Rao in 1992 when he attended a UNSC meeting.

➢ Support from France & Russia:
  ○ France has stated that it is dedicated to collaborating with India over strategic problems such as maritime security, peacekeeping, and counter-terrorism.
  ○ Russia welcomed the country gaining the UNSC presidency saying it is very impressed by India’s agenda, which embraces critical global concerns.

➢ Challenges for India at UNSC:
  ○ China Challenge:
    ● India is entering the UNSC at a time when Beijing is asserting itself at the global stage much more vigorously than ever. It heads at least six UN organisations and has challenged the global rules.
    ● China's aggressive behaviour in the Indo-Pacific as well as the India-China border has been visible in all of 2020.
    ● China has tried to raise the issue of Kashmir at the UNSC.
  ○ Post Covid World Order:
    ● As the global economy is in shambles with various countries facing recession and health emergencies.
  ○ Balancing USA and Russia and Unstable West Asia:
    ● With the situation deteriorating between the US and Russia and increasing tensions between US and Iran, it will be a tough situation to handle for India.
    ● India needs to uphold rule based world order with due respect to human rights ensuring the national interest.

United Nation Security Council
➢ About:
  ○ The UN’s Charter established six main organs of the UN, including the UNSC. Article 23 of the UN Charter concerns the composition of the UNSC.
  ○ The other 5 organs of the UN are—the General Assembly, the Trusteeship Council, the Economic and Social Council, the International Court of Justice, and the Secretariat.
  ○ The UNSC has been given primary responsibility for maintaining international peace and security and may meet whenever peace is threatened.
  ○ While other organs of the UN make recommendations to member states, only the Security Council has the power to make decisions that member states are then obligated to implement under the Charter.

➢ Headquarter:
  ○ The council is headquartered at New York.

➢ Members:
  ○ The UNSC is composed of 15 members, 5 permanent and 10 non-permanent.
    ● Five permanent members: China, France, the Russian Federation, the United Kingdom, and the United States.
Ten non-permanent members: Elected for two-year terms by the General Assembly.

Each year, the General Assembly elects five non-permanent members (out of ten in total) for a two-year term. The ten non-permanent seats are distributed on a regional basis.

The council’s presidency is a capacity that rotates every month among its 15 members.

Voting and Discussions at UNSC:

Each member of the Security Council has one vote. Decisions of the Security Council on matters are made by an affirmative vote of nine members including the concurring votes of the permanent members.

A “No” vote from one of the five permanent members blocks the passage of the resolution.

Any member of the UN which is not a member of the Security Council may participate, without vote, in the discussion of any question brought before the Security Council whenever the latter considers that the interests of that member are specially affected.

India’s Case of Permanent Seat in UNSC

Why in News

In the past, the Obama and Trump administrations had supported a permanent seat for India on the United Nations Security Council (UNSC). However, the recent statements by the State Department under the new US President Joe Biden, reflects an ambiguous or half-hearted view on this issue.

Key Points

Highlights of the Recent Viewpoint:

The US supports a reformed Security Council that is representative, that is effective, and that is relevant.

However, the US offers qualified support for building a consensus for enlargement of the UNSC – in terms of permanent and non-permanent members.

The US would not support an expansion of the veto, which is currently exercised by five permanent members (P-5): China, France, Russia, the UK and the US.

Also, the US’s Ambassador to the UN, had refrained from saying the US supported India and other members of the G4 (Japan, Germany and Brazil) for a permanent UNSC seat.

It cited the regional disagreements by the Uniting for Consensus (UFC) group – Pakistan, South Korea, Italy and Argentina – which opposes the G4 plan.

Need for UNSC Reforms:

Undemocratic Nature of UNSC: Barring two regions (North America and Europe), other regions are either underrepresented (like Asia) or not represented at all (Africa, Latin America and the Small Island developing states).

Misuse of Veto Power: The veto power is used by P-5 countries to serve the strategic interest of themselves and their allies.

For example, the United States has casted a veto on Council resolutions 16 times, to support its ally Israel, concerning Israeli-Palestinian conflict.

Lack of Global Governance: There are no regulatory mechanisms for global commons like the Internet, Space, High Seas (beyond one’s EEZ-exclusive economic zone).

Also, there is no unanimity on how to deal with global issues like terrorism, climate change, cybersecurity and public health (as seen in the current pandemic).

Due to all these factors, the former UN Secretary-General Kofi Annan said that the Security Council must either reform or risk becoming increasingly irrelevant.

Case for Permanent Membership of India in UNSC:

India’s Historic Association with the UN System: India is the founding member of the UN.

India, till now has been elected for eight terms for a two-year non-permanent member seat.

Most significantly, India has almost twice the number of peacekeepers deployed on the ground than by P5 countries.

Note:

In the past, India was offered to join the UNSC by both the superpowers, the US and the then Soviet Union in 1950 and in 1955 respectively.

However, India denied the offer due to Cold war politics in that era.
● India’s Intrinsic Value: India being the largest democracy and second-most populous country (soon to become most populous) in the world, are the primary reasons for it to be granted permanent membership in UNSC.
  ● Also, India is one of the largest economies and fastest-growing economies of the world.
● India’s Geopolitical Footprint: India’s acquired status of a Nuclear Weapons State (NWS) in May 1998 also makes India a natural claimant as a permanent member similar to the existing permanent members who are all Nuclear Weapon States.
  ● Also, India has been inducted in various export control regimes like MTCR, Wassenaar arrangement, etc.
  ● India’s international profile and capabilities rise due to its ever-expanding global footprint in diverse areas like politics, sustainable development, economics, and culture and science and technology.
● Representing the developing World: India is the undisputed leader of the Third world countries, as reflected by its leadership role in the Non-Aligned Movement.

RoadBlocks in India’s Bid for Permanent Membership:
• It is argued by critics that India has still not signed the Nuclear Non-Proliferation Treaty (NPT) and also refused to sign the Comprehensive Nuclear-Test-Ban Treaty in 1996.
• China, which has veto power in the UNSC being one of its five permanent members, has been stonewalling India’s efforts to become a permanent member.

Indian Base in Mauritius’ Agalega Islands

Why in News
Recently, Mauritius has denied a report that it has allowed India to build a military base on the remote island of Agalega.

Key Points
• Background:
  ● In 2015, India signed an agreement with Mauritius for development of Agalega Islands.
  ● It provided for setting up and upgrading of infrastructure for improving sea and air connectivity enhancing capabilities of the
Mauritian Defence Forces in safeguarding their interests in the Outer Island.

However, since then, there have been growing reports over the Indian naval and coastguard’s interests in setting up transponder systems and surveillance infrastructure, which has led to some local protests.

**Agelega Project:**
- Agelega project includes the construction of a jetty, rebuilding, and extension of the runway, and building an airport terminal on Agalega Island.
  - The project would add a new airport, port and logistics and communication facilities and potentially any other facilities related to the project.
- The Agelega island is located in the southwestern Indian Ocean, 1,122 km north of Mauritius.
  - It has a total land area of 27 square miles (70 square km).

**Significance:**
- Strengthen India’s Presence:
  - It will strengthen India’s presence in the south-west Indian Ocean and facilitate its power launch aspirations in the region.
  - India considers the new base necessary to facilitate both air and surface maritime patrols in the south-west Indian Ocean and as an intelligence post.
- Geo-Economic:
  - As a “central geographic point” Mauritius holds importance for commerce and connectivity in the Indian Ocean.
  - As a member of the African Union, Indian Ocean Rim Association and the Indian Ocean Commission, Mauritius is a stepping stone to multiple geographies.
  - As a founding-member of the ‘Small Island Developing States’ (SIDS) it has been seen as a significant neighbour.
- Protect Foreign Trade:
  - 95% of India’s trade by volume and 68% of trade by value comes via the Indian Ocean.
  - Nearly 80% of India’s crude oil requirement is imported by sea via the Indian Ocean. So presence in the Indian Ocean is of significance for India.

**Countering China:**
- To counter China’s ‘String of Pearls’ which can prove to be a threat to our strategic interests, it became extremely necessary for us to have a presence in the larger Indian Ocean Region.

**Security And Growth for All in Region:**
- The project can be seen as a part of India’s efforts to contribute to its neighbor’s development stories under SAGAR (Security And Growth for All in Region).
- The project can be seen as a way to increase cooperation between India and its neighbors.

**Enhancing Security infrastructure of Mauritius:**
- The project will enhance the capabilities of Mauritius security forces through upgradation in its infrastructure.

**Challenges:**
- Protests from Opposition:
  - Mauritius opposition has been raising concerns regarding transparency in the project.
  - The Mauritian government has exempted the project from any Environmental license process (EIA clearances).
- Protests from local People:
  - In 1965, before Mauritian independence, the UK split the Chagos islands from Mauritius, forcibly relocating the inhabitants. Many Agalégans fear they could suffer a similar fate.
  - All major military powers like France, China, US, and the UK have naval bases in the Indian Ocean this is leading to fears that their peaceful island region will also be militarised.
- China Centric Policies:
  - China’s rapidly growing presence in the northern part of the Indian Ocean along with the deployment of Chinese submarines and ships in the region is a challenge for India.
- Obsessive Security Policy:
  - An obsessively security-driven policy of India towards its neighbours has not helped in the past.
  - Certain common challenges like climate change, sustainable development and the blue economy should be reconsidered in India’s approach to Mauritius.

**Other Recent Developments:**
In July 2021, Prime Ministers of India and Mauritius jointly inaugurated a Supreme Court building in Mauritius.

In February 2021, the Union Cabinet approved signing of the Comprehensive Economic Cooperation and Partnership Agreement (CECPA) between India and Mauritius.

India and Mauritius signed a USD 100 million Defence Line of Credit agreement.

Mauritius would get a Dornier aircraft and an Advanced Light Helicopter Dhruv on lease which would build its maritime security capabilities.

The two sides also discussed the Chagos Archipelago dispute, which was an issue of sovereignty and sustainable development before the United Nations (UN).

In 2019, India voted at the UN General Assembly in support of the Mauritian position on the issue. India was one of the 116 countries that voted demanding that the UK end its “colonial administration” from the group of islands.

India delivered 1,000,000 Covishield vaccines to Mauritius.

**A Secure Indian Ocean**

**Why in News**

Recently, India has proposed to convene an open debate of the UN Security Council (UNSC) on enhancing maritime security.

- The objective of this debate is to highlight effective international maritime cooperation to respond holistically to natural and manmade threats to maritime security.
- It also reflects India’s international evolution as a maritime nation.

**Key Points**

- **Importance of Indian Ocean for India:**
  - **Long Maritime Boundary:** With a coastline of over 7,500 km, India has a natural interest in enhancing maritime security.
  - **Securing Sea lanes of Communication:** In the Indian Ocean, three major Sea Lanes Of Communication (SLOCs) play a crucial role in the energy security and economic prosperity:
    - SLOC connecting the Red Sea to the Indian Ocean through the Bab al-Mandab (that transports the bulk of Asia’s international trade with its major trading partners in Europe and America),
    - SLOC connecting the Persian Gulf to the Indian Ocean through the Strait of Hormuz (transporting the bulk of energy exports to major import destinations like India, ASEAN, and East Asia),
    - SLOC connecting the Indian and Pacific Oceans through the Straits of Malacca (integral to the smooth flow of trade with ASEAN, East Asia, Russia’s Far East and the US).
  - The Indian Ocean region transports 75% of the world’s maritime trade and 50% of daily global oil consumption.

- **India’s Maritime Initiatives:**
  - **Disaster Management:** The fallout of the 2004 tsunami, which took a heavy toll on human and natural resources, led to the creation of an Indian Ocean Tsunami Warning and Mitigation System by the UN in 2005.
    - Through this, an international network seeks to prevent a recurrence of such devastation.
  - **Anti-Piracy Operations:** Faced with the increased threat from piracy originating off the coast of Somalia since 2007 to shipping in the western Indian Ocean, the Indian Navy participated robustly as part of a UNSC mandated 60-country Contact Group on Piracy off the coast of Somalia.
  - **Security and Growth for All (SAGAR) Policy:** India’s SAGAR policy is an integrated regional framework, unveiled by Indian Prime Minister during a visit to Mauritius in March 2015. The pillars of SAGAR are:
    - India’s role as a net security provider in the Indian Ocean region (IOR).
    - India would continue to enhance the maritime security capacities and economic resilience of friendly countries in IOR.
A more integrated and cooperative focus on the future of the IOR, which would enhance the prospects for the sustainable development of all countries in the region.

- The primary responsibility for peace, stability and prosperity in the IOR would be on those “who live in this region”.
- Abiding by the International Law: India accepted an United Nations Convention for the Law of the Sea (UNCLOS) tribunal award on the maritime boundary arbitration between India and Bangladesh.
- It envisaged contributing a new impulse to effective international economic cooperation among the littoral states of the Bay of Bengal (BIMSTEC).

Data Sharing: Sharing data on threats to commercial shipping is an important component of enhancing maritime security.

- In this context, India established an International Fusion Centre (IFC) for the Indian Ocean region in Gurugram in 2018.
- IFC is jointly administered by the Indian Navy and Indian Coast Guard.
- IFC serves the objective of generating Maritime Domain Awareness on safety and security issues.

UNSC Meet on Maritime Security

Why in News

Recently, the United Nations Security Council (UNSC) has adopted the first-ever presidential statement on maritime security.

- India, as the UNSC president for August 2021, noted the threats to maritime safety and security and called upon the members to consider implementing the 2000 UN Convention against Transnational Organized Crime.
- All the permanent members of UNSC (US, China, Russia, UK and France) attended the Meet.

Key Points

- Statement on Maritime Security:
  - Emphasized on safeguarding the legitimate uses of the oceans and security of coastal communities, affirming that international law — reflected in the 1982 United Nations Convention on the Law of the Sea, among other global instruments — provides the legal framework for combating these illicit activities.
  - Called on Member States to implement the International Ship and Port Facility Security Code and Chapter XI-2 of the International Convention for the Safety of Life at Sea, and to work with the International Maritime Organization (IMO) to promote safe and secure shipping while ensuring freedom of navigation.
  - Member States, by other terms, should also consider ratifying, acceding to and implementing the 2000 United Nations Convention against Transnational Organized Crime and the Protocols thereto.

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<td>➢ The ‘Law of the Sea Treaty’, formally known as the United Nations Convention on the Laws of the Sea (UNCLOS) was adopted in 1982 to establish jurisdictional limits over the ocean areas.</td>
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<td>➢ The convention defines distance of 12 nautical miles from the baseline as Territorial Sea limit and a distance of 200 nautical miles distance as Exclusive Economic Zone limit.</td>
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<td>➢ India became a signatory to the UNCLOS in 1982.</td>
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| International Ship and Port Facility Security (ISPS) Code |
| ➢ The ISPS Code is a set of measures to enhance the security of ships and port facilities. It was developed in response to the perceived threats to ships and port facilities after the 9/11 attacks. |
| ➢ Chapter XI-2 of the International Convention for the Safety of Life at Sea enshrines the ISPS Code. |

| International Maritime Organization (IMO) |
| ➢ IMO is a specialized agency of the United Nations (UN). It is a global standard-setting authority with responsibility to improve the safety and security of international shipping and prevention of marine and atmospheric pollution by ships. |
| ➢ India joined the IMO in 1959. The IMO currently lists India as among the 10 states with the ‘largest interest in international seaborne trade’. |
UN Convention against Transnational Organized Crime (UNTOC)

- **UNTOC** is also known as the Palermo Convention since it was adopted in Palermo in Italy in 2000, entered into force in 2003. **India joined UNTOC** in 2002.
- The idea behind having an international convention against organized crime was that if crimes could cross borders, so must law enforcement.

**India’s Stand:** India has put forth five basic principles for maritime security.
- **Free maritime trade** sans barriers so as to establish legitimate trade.
  - In this context, **SAGAR (‘Security and Growth for all in the Region’) vision** can be highlighted.
- **Settlement of maritime disputes** should be peaceful and on the basis of international law only.
  - It was with this understanding, and maturity, that India resolved its maritime boundary with its neighbour Bangladesh.
- **Responsible maritime connectivity** should be encouraged.
  - Making reference to **China’s Belt and Road Initiative**, India held that, while creating structures for “maritime connectivity”, countries should keep “financial sustainability” and absorption capacity of the host countries.
- **Need to collectively combat maritime threats** posed by non-state actors and natural calamities.
  - Highlighting India’s role in the Indian Ocean has been that of a net security provider.
- **Preserve the maritime environment** and maritime resources.
  - Highlighting increasing pollution from plastic waste and oil spills.

**US’ Stand:**
- **Conflict in the South China Sea** or in any ocean would have serious global consequences for security and for commerce.
- It highlighted that **China has been building military bases on artificial islands** in the region also claimed by Brunei, Malaysia, the Philippines, Taiwan and Vietnam.
- The US also referred to the unanimous and legally binding decision five years ago by the arbitral tribunal constituted under the UNCLOS which China firmly rejected as unlawful.

**China’s Stand:**
- China held that with the joint efforts of China and **ASEAN countries**, the situation in the South China Sea remains generally stable.
- Referring indirectly to the **Quad** (US, India, Japan, Australia), a few countries are pursuing exclusive regional strategies in the **Asia Pacific region**.
  - This can create and intensify maritime conflicts, undermine the sovereignty and security interests of relevant countries, and weaken regional peace and stability.
- Further, China criticizes the US that it is not qualified to make irresponsible remarks on the issue of the South China Sea, **because the US itself has not joined the UNCLOS**.

**Russia’s Stand:**
- Russia did not mention the South China Sea or the **Indo-Pacific**, and articulated a much nuanced position.
- It promotes strict adherence to key norms and principles of international law enshrined in the UN Charter, such as respect for sovereignty, non-intervention in the internal affairs and settling disputes through dialogue.

**UK’s Stand:**
- The UK has a vision for a **free, open and secure Indo-Pacific**.
In this context, the UK’s recent Integrated Review of Foreign, Security, Defence and Development policy set out the importance it attaches to the Indo-Pacific.

- **France’s Stand:**
  - It held that the maritime domain has emerged as a theatre for a new generation of challenges and urged greater cooperation among the members of the UNSC to deal with the issue.
  - Such as, combating climate change and its consequences on security, particularly in terms of natural disasters.

### Sanctions Imposed Against Belarus

#### Why in News

The UK, the US and Canada have issued fresh trade, financial and aviation sanctions on Belarus, in a bid to increase pressure on the country’s leader Alexander Lukashenko.

#### Key Points

- **Background:**
  - Europe’s longest-serving ruler, President of Belarus (Lukashenko) took office in 1994 amid the chaos caused by the collapse of the Soviet Union in 1991.
  - Often described as Europe’s “last dictator”, he has tried to preserve elements of Soviet communism.
    - He has been in power for 26 years, keeping much of the economy in state hands, and using censorship and police crackdowns against opponents.
  - In 2020, after Lukashenko was announced as the winner in elections, protests broke out in the capital, Minsk which were met with a violent security crackdown.
    - There has been widespread anger against the government over a stagnant economy and doubts about the fairness of the election.

- **Sanctions’ Targets:**
  - The idea is to focus on the regime and Lukashenko’s associates as precisely as possible and discourage Western companies from doing business with Belarus.

- The latest sanctions restrict exports of surveillance and military technology to Belarus.
- The sanctions partially ban imports of potash fertilizer, petrol and petrol-based products from Belarus.
- In the cases of the EU, U.K. and Canada, the embargo also restricts financial trade such as buying state debt and insuring or reinsuring state-related entities.
- The EU and US have sanctioned Belarus’ tobacco industry, which contributes to the lucrative cigarette smuggling trade.
  - More than 90% of cigarettes smuggled into Lithuania came from Belarus in 2019.
- Western countries also blacklisted some Belarusian citizens.

- **Impacts:**
  - Targeting Belarus’ potash sector was a strategic move insofar as the country is the second largest exporter of the fertilizer behind Canada, covering 21% of the world’s potash exports in 2019.
    - But, sanctions cover only 15% of all potash exports to the EU.
  - Also, Russia represents 49.2% of all Belarusian trade and Belarus can export its sanctioned goods across the Russian border for re-export from there.
  - The impact of restrictions on dual-use goods, monitoring and interception goods and technology, and goods used in cigarette manufacturing would be negligible.
Opportunity for Russia:
- Since Russian President Putin has tense relations with Lukashenko, and the sanctions are an opportunity for Russia to impose its own conditions on Lukashenko’s survival in control of a crumbling state, which Russia has financially supported for decades.

Belarus’ Stand:
- Accused the U.K., US and Canada of ignoring the will of the Belarusian people and employing the “entire arsenal of ‘cold war’ methods” in pursuit of regime change.

Collaboration of India, Sri Lanka and Maldives on Security

Why in News
Recently in a Deputy National Security Adviser-level meeting hosted by Sri Lanka, India, Sri Lanka and the Maldives have agreed to work on “four pillars” of security cooperation.
- The four areas covers marine security, human trafficking, counter-terrorism, and cyber security.
- The meeting which was held under the Colombo Security Conclave, saw Bangladesh, Seychelles and Mauritius participating in the role of observers.

Key Points
- Background:
  - Soon after the NSA (National Security Adviser) Trilateral meeting on Maritime Security in November 2020 in Colombo, this grouping was renamed as ‘Colombo Security Conclave’. A secretariat has also been established in the capital city of Sri Lanka (Colombo).
  - This Trilateral framework was established back in 2011.
  - The aim of the establishment of the Conclave was to forge closer cooperation on maritime and security matters among the three Indian Ocean countries.
  - The initiative, grounded in military and security collaboration, assumes significance in the region, in the wake of the current geostrategic dynamic that India shares with Sri Lanka and the Maldives.

- Current Geostrategic Dynamic:
  - Sri Lanka: Earlier this year, India aired security concerns over China being awarded development projects in an island off Sri Lanka’s northern province, close to India’s southern border.
  - The Maldives’s engagement with members of the India-United States-Japan-Australia grouping, known as the ‘Quad’, has been growing over the last year, especially in the area of defence cooperation.

- Highlights of the Latest Meeting:
  - The aim of the Meeting was to establish a maritime security mechanism for Indian Ocean Region (IOR) including the Bay of Bengal amid China’s growing presence in the area.
  - With the six countries attending the meeting, the focus areas were expanded and now it covers weapons and human trafficking, countering terrorism and violent extremism, protection of maritime environment, capacity building, transnational crimes including narcotics, and Humanitarian Assistance and Disaster Relief (HADR), etc.
  - More cooperation through joint exercises of the navies and coast guards to further strengthen maritime safety and security in IOR.
  - As has been reported earlier, there have been pollution accidents in the IOR. MV Xpress Pearl, MT New Diamond and MV Wakashio had accidents in the region and this impacted the marine environment. The members discussed ways of combating the pollution in the waters.
  - Later this year, the three observer countries have been invited to be full members at the next NSA level meeting. This meeting will take place in Maldives.

- Significance:
  - The widening of thematic areas of cooperation and expansion of membership to Bangladesh, Mauritius and Seychelles indicate growing convergence among the Indian Ocean Region countries to work together in a common platform and to deepen the spheres of engagement under a regional framework.
  - The coming together of the 6 Indian Ocean region countries in India’s immediate neighbourhood on a common maritime and security platform is significant in a wider global context as well.

Note:
It highlights India's desire to play a leading security role in the neighbourhood.

Concerns:
- The progress of the NSA-level trilateral meeting was affected when Delhi's ties with Male deteriorated under Maldivian President Abdulla Yameen.
- Subregional cooperation cannot be insulated from bilateral political relations and, hence, maintaining good bilateral relations with individual countries and responding to the growing aspirations of smaller neighbours would be crucial.
- Most of the smaller neighbours are more comfortable cooperating in non-traditional security than entering into hard military cooperation with India at the subregional level.

**External Affairs Minister's Visit to Iran**

**Why in News**

India’s External Affairs Minister (EAM) visited Iran to attend the swearing-in ceremony of new Iranian President Ebrahim Raisi. This marks a landmark event attempting to reset the ties with Iran that have been under strain in recent times.

This is EAM's second visit in a month and it comes amid a sharp escalation of the fighting in Afghanistan between the Taliban and the Afghan security forces.

**Key Points**

- Importance of Iran for India:
  - Geo-strategic Outreach: India views Iran as key to access land-locked Afghanistan and Central Asia through Chabahar Port.
    - Iran's geographical position is paramount to India's geopolitical outreach, especially to Central Asia, a rich reservoir of natural resources.
    - Similarly, Iran is vital for India’s access to Afghanistan in which India has immense strategic and security interests.
    - Further, India has been developing the Chabahar port in a bid to bypass the impediments placed by Pakistan in the way of its attempts to trade with Afghanistan.
  - Energy Security: Iran, one of the richest countries in hydrocarbons and India, a rapidly growing economy with a deep thirst for energy - make them natural partners.

- Security Concerns Emanating From Afghanistan:
  - Visit comes amidst rapid developments in Afghanistan, with the US completing the pull-out of troops and the Taliban increasing its attacks on Afghan cities.
    - The rapid advance of Taliban concerns both India and Iran.
    - Given this context, and common interests, it is necessary for India and Iran to cooperate more closely, particularly on Afghanistan.

**Significance of the Visit:**

- Reasons for Tussle in India-Iran Relationship:
  - India cancelling oil imports from Iran due to US sanctions.
  - Slow progress in Chabahar port.
  - Tussle over Farzad-B Gas Field.
  - Iranian comments on Kashmir over the past few years.

- Associated Challenges:
India's Exclusion in Afgan Peace Process: Another “Troika plus” meeting, the U.S.-Russia-China-Pakistan grouping on Afghanistan peace process, is going to be held in Doha.
- However, India and Iran, which are two regional powers, are being left out.

Persisting Sanctions on Iran: Despite campaign promises to reverse the Donald Trump policy on Iran, US President Joe Biden's administration is yet to withdraw most of the additional sanctions placed in 2017-2018.

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China-India Agreed to Disengage

**Why in News**

Recently, during the 12th round of discussions between the senior military commanders of India and China to resolve the standoff in eastern Ladakh, both have agreed in principle to disengage at a key patrol point in eastern Ladakh.
- The 11th Corps Commander-level talks were held in April 2021, when the two sides could not even agree on a joint statement.

**Key Points**

- **Current Disengagement:**
  - The agreement on Patrolling Point (PP)17A (Gogra post) was reached but China is not inclined to move back from PP15 (Hot Springs area); it continues to insist that it is holding its own side of the Line of Actual Control (LAC).
  - The disengagement at PP17A is likely to follow the process that was adopted for PP14 in the Galwan Valley and Pangong Tso where a time-frame was set for withdrawal.
  - Both sides agreed to resolve these remaining issues in an expeditious manner in accordance with the existing agreements and protocols and maintain the momentum of dialogue and negotiations.
  - They also agreed that in the interim they will continue their effective efforts in ensuring stability along the LAC in the Western sector and jointly maintain peace and tranquility.

- **Patrolling Point 15 and 17A:**
  - Along the LAC between India and China, Indian Army has been given certain locations that its troops have access to patrol the area under its control.
  - These points are known as patrolling points, or PPs, and are decided by the China Study Group (CSG).
  - CSG was set-up in 1976, when Indira Gandhi was the prime minister, and is the apex decision-making body on China.
  - Barring certain areas, like Depsang Plains, these patrolling points are on the LAC, and troops access these points to assert their control over the territory.
  - It is an important exercise since the boundary between India and China is not yet officially demarcated.
  - LAC is the demarcation that separates Indian-controlled territory from Chinese-controlled territory.
  - PP15 and PP17A are two of the 65 patrolling points in Ladakh along the LAC.
  - Both these points are in an area where India and China largely agree on the alignment of the LAC.
  - PP15 is located in an area known as the Hot Springs, while PP17A is near an area called the Gogra post.

- **Location of Hot Springs and Gogra Post:**
  - Hot Springs is just north of the Chang Chenmo river and Gogra Post is east of the point where the river takes a hairpin bend coming southeast from Galwan Valley and turning southwest.
  - The area is north of the Karakoram Range of mountains, which lies north of the Pangong Tso lake, and south east of Galwan Valley.

- **Importance of Hot Springs and Gogra Post:**

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Note:
The area lies close to **Kongka Pass**, one of the main passes, which, according to China, marks the boundary between India and China.

India’s claim of the international boundary lies significantly east, as it includes the entire **Aksai Chin** area as well.

Hot Springs and Gogra Post are close to the boundary between two of the most historically disturbed provinces (Xinjiang and Tibet) of China.

**Major Friction Points:**
- Apart from PP15 and PP17A, PP14 in Galwan Valley, and **Finger 4 on the north bank of Pangong Tso** and Rezang La and Rechin La on the south bank of Chang Chenmo river, were identified as friction points.

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**Pangong Tso lake**
- Pangong Lake is located in the **Union Territory of Ladakh**.
- It is situated at a **height of almost 4,350m** and is the **world’s highest saltwater lake**.
- Extending to almost 160km, one-third of the Pangong Lake lies in India and the other two-thirds in China.

**Galwan Valley**
- The valley refers to the land that sits between steep mountains that buffet the **Galwan River**.
- The river has its **source in Aksai Chin**, on China’s side of the LAC, and it flows from the east to Ladakh, where it **meets the Shyok river on India’s side of the LAC**.
- The valley is **strategically located between Ladakh in the west and Aksai Chin in the east**, which is currently controlled by China as part of its Xinjiang Uyghur Autonomous Region.

**Chang Chenmo River**
- Chang Chenmo River or Changchenmo River is a **tributary of the Shyok River, part of the Indus River system**.
- It is at the southern edge of the disputed Aksai Chin region and north of the Pangong Lake basin.
- The **source of Chang Chenmo is near the Lanak Pass**.

**Kongka Pass**
- The Kongka Pass or Kongka La is a **low mountain pass over a hill that intrudes into the Chang Chenmo Valley**. It is in the disputed India-China border area in Ladakh.

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**Karakoram Range**
- It is also known as **Krishnagiri** which is situated in the northernmost range of the Trans-Himalayan ranges. It forms India’s frontiers with Afghanistan and China.
- It extends eastwards from the Pamir for about 800 km. It is a range with lofty peaks [elevation 5,500 m and above].
- Some of the peaks are more than 8,000 metre above sea level. **K2 (8,611 m)**[Godwin Austen or Qogir] is the second highest peak in the world and the highest peak in the Indian Union.
- The **Ladakh Plateau lies to the north-east of the Karakoram Range**.

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**India-Bangladesh Commercial Railway Link Restored**

**Why in News**
Recently, Bangladesh and India started regular operation of freight trains through the restored Haldibari-Chilahati rail route after over 50 years, which will strengthen railway connectivity and bilateral trade between the two countries.

- The Haldibari-Chilahati rail link is one such route that was operational till 1965.
- Another rail link, between **Agartala-Akhaura**, is scheduled to open by the end of 2021.

**Key Points**

**Background:**
- **After the Partition in 1947, seven rail links were operational** between India and Bangladesh (then East Pakistan) until 1965.
- Presently, there are **Five rail links** between Bangladesh and India that are operational.
- They are Petrapole (India)-Benapole (Bangladesh), Gede (India)-Darshana (Bangladesh), Singhabad (India)-Rohanpur (Bangladesh), Radhikapur (India)-Birol (Bangladesh), Haldibari (India)-Chilahati (Bangladesh).

**Significance:**
- The Haldibari-Chilahati route is expected to enhance the connectivity to Assam and West Bengal from Bangladesh.
It will enhance rail network access to the main ports and dry ports to support the growth in regional trade to encourage economic and social development of the region.

Common people and businessmen of both countries will be able to reap the benefit of both goods and passenger traffic, once passenger trains are planned in this route.

Economic activities (including tourist activities) of these South Asian countries will also be benefitted from this new rail link.

The 75-kilometre long track will also help better integrate the rest of the country with the Siliguri corridor, also known as the ‘Chicken’s Neck.’
- The corridor connects India with the North-eastern states, which has witnessed growing aggressiveness from another neighbouring country of China in recent times.

**Indo-Bangladesh Ties**

- **Historical Ties:**
  - Fifty years ago, the Bangladesh Liberation War in 1971 had added the colours of victory for India as it led the charge towards the formation of the new nation of Bangladesh.

- **Defence Cooperation:**
  - Joint exercises:
    - **SAMPRIITI** (Army).
    - **TABLE TOP** (Air).
    - **IN-BN CORPAT** (Navy).
    - **Exercise Bongosagar** (Navy).
    - **SAMVEDNA** (Multinational Humanitarian Assistance and Disaster Relief (HADR) Exercise with Bangladesh, Nepal, Sri Lanka and UAE).

- **Border Management:** India and Bangladesh share 4096.7 km. of border, which is the longest land boundary that India shares with any of its neighbours.

- **Economic Relations:**
  - Bangladesh is India’s largest trading partner in the sub-continent with the total bilateral trade between the two nations standing at $9.5 billion (2019-20), down compared to the previous fiscal (2018-19), having crossed $10 billion.
  - India’s exports to Bangladesh account for more than 85% of the total bilateral trade.
  - In December 2020, to further boost the bilateral trade cooperation, an India-Bangladesh CEO’s Forum was launched.
  - Bangladesh has appreciated the Duty-Free and Quota Free access given to Bangladeshi exports to India under South Asian Free Trade Area (SAFTA) since 2011.

- **Cooperation in Connectivity:**
  - In March 2021, **Maitri Setu-a 1.9 km bridge** built over Feni river joining Sabroom in India and Ramgarh in Bangladesh was inaugurated.
  - Protocol on **Inland Water Transit and Trade** (PIWTT).
  - Bangladesh-Bhutan-India-Nepal (BBIN) Motor Vehicles Agreement is in pipeline.

- **Partnership on Multilateral forums:**
  - **South Asian Association for Regional Cooperation** (SAARC).
  - **Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation** (BIMSTEC).
  - **Indian Ocean Rim Association** (IORA).

- **Other Developments:**
  - **Line of Credit:**
    - India has extended 3 Lines of Credits (LOC) to Bangladesh in the last 8 years amounting to $8 billion for development of infrastructure in sectors including roads, railways, shipping and ports.
  - **Covid-19:**
    - Bangladesh is the biggest recipient of Made-in-India Covid-19 vaccine doses, accounting for 16% of the total supplies.
    - India also offered collaboration in therapeutics and partnership in vaccine production.
Emerging Disputes:
- Bangladesh has already raised concerns over roll out of the National Register of Citizens (NRC) in Assam, an exercise carried out to identify genuine Indian citizens living in Assam and weed out illegal Bangladeshi.
- Currently, Bangladesh is an active partner of the Belt and Road Initiative (BRI) that Delhi has not signed up to.
- In the security sector, Bangladesh is also a major recipient of Chinese military inventory, including submarines.

Provincial Status to Gilgit-Baltistan: Pakistan

Why in News
Recently, it has been reported that Pakistani authorities have finalised a law (26th Constitutional Amendment Bill), to award provisional provincial status to strategically located Gilgit-Baltistan.

Key Points
- About Gilgit-Baltistan:
  - Gilgit-Baltistan is one of the disputed territories of India.
  - It is a chunk of high-altitude territory located on the north western corner of the Union Territory of Ladakh.
  - It is located strategically as it borders Pakistan, Afghanistan and China.

Background of Gilgit-Baltistan Dispute:
- The region is claimed by India as part of the erstwhile princely state of Jammu & Kashmir as it existed in 1947 at its accession to India.
  - Maharaja Hari Singh, the last Dogra ruler of J&K, had signed the Instrument of Accession with India on 26th October 1947.
- However, it has been under Pakistan’s control since 4th November, 1947, following the invasion of Kashmir by tribal militias and the Pakistan army.
- Following this invasion, India moved to the United Nations Security Council to raise the issue of Pakistan’s invasion, on 1st January 1948.
- The UN Security Council passed a resolution:
  - Calling for Pakistan to withdraw from all of Jammu and Kashmir and then India had to reduce its forces to the minimum level following which a plebiscite would be held to ascertain people’s wishes.
  - However, no withdrawal was ever carried out and it remains a point of contention between two countries.

Current Status:
- Gilgit-Baltistan is an autonomous region now and after the bill is passed, it will become the 5th province of the country.
  - Currently, Pakistan has four provinces namely Balochistan, Khyber Pakhtunkhwa, Punjab, and Sindh.
  - Presently, it has been ruled mostly by executive orders.
  - Until 2009, the region was simply called Northern Areas.
  - It got its present name only with the Gilgit-Baltistan (Empowerment and Self-Governance) Order, 2009, which replaced the Northern Areas Legislative Council with the Legislative Assembly.

Reasons for Making Gilgit-Baltistan a Province:
- Gilgit-Baltistan is the northernmost territory administered by Pakistan. It is Pakistan’s only territorial frontier, and thus a land route, with China.
  - The Gilgit-Baltistan region is at the centre of the USD 65 billion China Pakistan Economic Corridor (CPEC) infrastructure development plan.
  - The CPEC has made the region vital for both countries. The CPEC, which connects Gwadar
Port in Pakistan’s Balochistan with China’s Xinjiang province, is the flagship project of China’s ambitious multi-billion-dollar Belt and Road Initiative (BRI).

- Some experts on India-Pakistan relations also assert that Pakistan’s decision might have come from India’s reassertion of its claims after the 5th August, 2019 reorganisation of Jammu & Kashmir.

**India’s Stand:**

- India maintains the Government of Pakistan or its judiciary has no locus standi on territories illegally and forcibly occupied by it.
- India has clearly conveyed to Pakistan that the entire Union Territories of Jammu and Kashmir and Ladakh, including the areas of Gilgit and Baltistan, are an integral part of the country by virtue of its fully legal and irrevocable accession.
- India has protested to China over the CPEC as it is being laid through Pakistan-occupied Kashmir.

**Forum of the Election Management Bodies of South Asia (FEMBoSA)**

**Why in News**

Recently, the Election Commission of India inaugurated the 11th Annual meeting of the Forum of the Election Management Bodies of South Asia (FEMBoSA) for the year 2021.

**Key Points**

- **About the Meeting:**
  - Hosted By: Election Commission of Bhutan.
  - Chairmanship: The Election Commission of India handed over the chairmanship of FEMBoSA role to the Election Commission of Bhutan for 2021-22.
  - Thimphu Resolution: A resolution was unanimously adopted by the FEMBoSA members to extend the tenure of chairmanship to two years during the current pandemic situation.
    - Before this, the tenure of the chairmanship was one year.
  - Theme of Meeting: ‘Use of Technology in Elections’.
  - Digitization of Election: The technology is extensively used to make elections more participative, accessible and transparent.

- **It has become more important during the Covid 19 situation as it is helping in minimizing person-to-person contact.**

- **About FEMBoSA:**
  - **Establishment:**
    - The forum was established at the 3rd Conference of Heads of Election Management Bodies (EMBs) of SAARC (South Asian Association for Regional Cooperation) Countries in 2012.
    - SAARC comprises eight member States: Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka.
  - **Aim:**
    - To increase mutual cooperation in respect to the common interests of the SAARC’s EMBs.
  - **Significance:**
    - FEMBoSA represents a very large part of the democratic world and it is an active regional cooperation association of EMBs.
    - Its logo with golden pearls stands for the eternal values of transparency, impartiality, democracy and cooperation.
GSLV-F10 Failure: ISRO’s EOS-03 Satellite Mission

**Why in News**

Recently, Indian Space Research Organisation (ISRO) suffered the loss of an important earth observation satellite (EOS-03) during launch when the GSLV rocket carrying it malfunctioned about five minutes from the lift-off.

**Earth Observation Satellites**

- Earth observation satellites are the satellites equipped with remote sensing technology. Earth observation is the gathering of information about Earth’s physical, chemical and biological systems.
- Many earth observation satellites have been employed on sun-synchronous orbit.
- Other earth observation satellites launched by ISRO include RESOURCESAT-2, 2A, CARTOSAT-1, 2, 2A, 2B, RISAT-1 and 2, OCEANSAT-2, Megha-Tropiques, SARAL and SCATSAT-1, INSAT-3DR, 3D, etc.

**Key Points**

- **About the EOS-03:**
  - It was capable of imaging the entire country four to five times every day.
  - It was riding on a GSLV rocket (GSLV-F10), which has a new payload carrier designed to significantly reduce aerodynamic drag and thus carry larger payloads.
  - The rocket was supposed to deposit the satellite in the geostationary transfer orbit, from where the satellite’s onboard propulsion system will guide it to a geostationary orbit, 36,000 km from earth’s surface.

- **Geostationary transfer orbit** is a circular orbit positioned approximately 35,900 km above Earth’s equator and having a period of the same duration and direction as the rotation of the Earth.
- An object in this orbit will appear stationary relative to the rotating Earth.

**Significance:**

- EOS-03, part of the new generation of earth-observation satellites, was meant to provide almost real-time images of large parts of the country.
- The images could be used for monitoring natural disasters like floods and cyclones, water bodies, crops, vegetation and forest cover.
- EOS-03 was being sent ahead of EOS-02 which has been delayed by the Covid-19 pandemic.
- EOS-02 was supposed to be launched around March-April this year, but now has been rescheduled for September-October.
- EOS-02 was supposed to ride on ISRO’s new SSLV (Small Satellite Launch Vehicle) rocket.
- SSLVs will broaden ISRO’s current rocket range that comprises PSLVs and GSLVs, and cater to the increasing demand for launching of small commercial satellites.

- **EOS-01:**
  - In November 2020, ISRO had launched EOS-01, the first in the series of new earth observation satellites that bear a new generic naming system.
  - It was launched by Polar Satellite Launch Vehicle (PSLV), the third generation launch vehicle of India.
  - It is intended for applications in agriculture, forestry and disaster management support.
Geosynchronous Satellite Launch Vehicle (GSLV)

- GSLV is a space launch vehicle designed, developed, and operated by the ISRO to launch satellites and other space objects into Geosynchronous Transfer Orbits.
- Geosynchronous satellites are launched into orbit in the same direction the Earth is spinning and can have any inclination.
- GSLV has the capability to put a heavier payload in orbit than the Polar Satellite Launch Vehicle (PSLV).
- It is a three-stage launcher with strap-on motors.

Failure of the GSLV-F10

- Reasons:
  - Liquid fuel strap-on boosters start the launch of the satellite by providing the extra thrust needed to lift the rocket off the ground.
  - Then, follows a solid fuel first stage with another liquid fuel stage coming next. These two stages operated as expected.
  - It was the rocket’s crucial third stage, which uses an indigenously-made Cryogenic Upper Stage (CUS) which then failed to ignite.
    - The cryogenic stage is “technically a very complex system compared to solid or earth-storable liquid propellant stages due to its use of propellants at extremely low temperatures and the associated thermal and structural problems”.

- Impacts on the Future Missions:
  - This was the second launch ISRO had lined up for 2021, which had suffered multiple delays after being originally scheduled for March 2020.
  - Its successful mission was in February, which was Brazil’s earth observation satellite Amazonia-1 and 18 co-passenger satellites.
  - The failure breaks a series of 16 consecutive successful launches by ISRO since 2017.
  - Satellites had been planned for 2020-21, including OCEANSAT-3, GISAT-2, RISAT-2A, etc. with these missions set to cost an estimated Rs 701.5 crore.
  - Missions like Gaganyaan and Chandrayaan-3 will be launched on GSLV Mk-III, a more advanced version of the GSLV rocket that is designed to carry much heavier payloads into space.

- It is a big cause of worry for the NISAR mission, a first-of-its-kind collaboration between NASA and ISRO for a joint earth-observation satellite.
  - NISAR, which will use two synthetic aperture radars (SAR) to monitor the entire Earth in a 12-day cycle, is the most important mission yet involving the GSLV Mk-II rocket.

World Biofuel Day

Why in News

- World Biofuel Day is observed on 10th August every year.

Key Points

- About:
  - It is observed to raise awareness of the importance of non-fossil fuels as a substitute for conventional fossil fuels.
  - Ministry of New and Renewable Energy in association with UNIDO (United Nations Development Industrial Organisation) and GEF (Global Environment Facility - a financial mechanism) launched two schemes on this occasion which are:
    - Interest Subvention Scheme.
    - GIS based inventory tool of organic waste streams.
  - Biofuels programme is also in synergy with Government of India’s initiative of Atmanirbhar Bharat.

- History:
  - This day is observed in honour of Sir Rudolf Diesel. He was the inventor of the diesel engine and was the first to predict the possibility of vegetable oil replacing fossil fuels.

- Theme for 2021:
  - It is based on the promotion of biofuels for a better environment.

- Celebrated by:
  - Ministry of Petroleum and Natural Gas since 2015.

- Significance:
  - Any hydrocarbon fuel that is produced from an organic matter (living or once living material) in a short period of time (days, weeks, or even months) is considered a biofuel.
  - Examples of Biofuel include ethanol, biodiesel, green diesel and biogas.
Biofuels help in reducing the dependence on crude oil and fostering a cleaner environment. It also generates additional income and employment for rural areas. This will not only help meet India’s rural energy needs but also fulfill the rising demands for transportation. The use of carbon fuels will reduce carbon emissions and meet the energy requirements of the 21st century.

**Interest Subvention Scheme:**
- It provides financial assistance to innovative waste to energy biomethanation projects and business models.
  - The industrial organic waste-to-energy biomethanation projects are generally capital intensive and financially sensitive to both operating costs, including waste availability, and revenue, particularly biogas yield and its utilization scenario.
  - Innovations in such projects seek to improve overall energy output thereby minimizing the cost of energy generation but may lead to increase in the initial project cost at the establishment stage yet increase revenue and reduce operating costs over project’s lifetime.
- The loan scheme provides financial assistance to beneficiaries to reduce the financial burden on account of interest on the loan component faced by such demonstration projects.

**Inventory Tool Of Organic Waste Streams:**
- The tool provides district level estimates of available urban and industrial organic wastes and their energy generation potential across India.
- The GIS (Geographic information system) tool will enable SMEs (Small and Medium Enterprises) and project developers to set up new waste to energy projects and may facilitate the rapid growth of biomethanation in the waste-to-energy sector in the country.

**Govt Initiatives to Promote Biofuels**
- **Blending of biofuels:** Ethanol Blended Petrol (EBP) programme, Administrative price mechanism for ethanol, Simplifying the procurement procedures by Oil Marketing Companies (OMCs), amending the provisions of Industries (Development & Regulation) Act, 1951 etc are some of the initiatives taken to promote blending of biofuels.
  - Researchers at the International Centre for Genetic Engineering and Biotechnology (ICGEB) are developing a method to use cyanobacterium for biofuel production.
  - Recently, the Central government has also allowed the conversion of surplus rice to ethanol.
  - **Pradhan Mantri JI-VAN Yojana,** 2019: To create an ecosystem for setting up commercial projects and to boost Research and Development in 2G Ethanol sector.
  - **GOBAR (Galvanizing Organic Bio-Agro Resources) DHAN scheme:** It focuses on managing and converting cattle dung and solid waste in farms to useful compost, biogas and bio-CNG, thus keeping villages clean and increasing the income of rural households.
  - **Repurpose Used Cooking Oil (RUCO):** It was launched by Food Safety and Standards Authority of India (FSSAI) and aims for an ecosystem that will enable the collection and conversion of used cooking oil to biodiesel.
  - **National Policy on Biofuels, 2018:** It expands the scope of raw material for ethanol production by allowing use of sugarcane juice, sugar containing materials like sugar beet, sweet sorghum, starch containing materials like corn, cassava, damaged food grains like wheat, broken rice, rotten potatoes, unfit for human consumption for ethanol production.

**Snakebite Envenoming**

**Why in News**

According to a new study by the Indian Council of Medical Research (ICMR), India has the highest number of snakebite cases in the world, accounting for nearly 50% of the global snakebite deaths.
Snakebite Envenoming (SE) is classified by the World Health Organisation (WHO) as a High-Priority Neglected Tropical Disease (NTD).

**Key Points**

**About:**
- SE is a potentially life-threatening disease that typically results from the injection of a mixture of different toxins (venom) following the bite of a Venomous Snake and can also be caused by having venom sprayed into the eyes by certain species of snakes that have the ability to spit venom as a defence measure.
- It is a particularly important public health problem in rural areas of tropical and subtropical countries situated in Africa, the Middle-East, Asia, Oceania and Latin America.
  - In these regions the risk of snakebite is a daily concern, especially for rural and peri-urban communities where hundreds of millions of people depend on agriculture or subsistence hunting and gathering in order to survive.

**Impact:**
- Many snakebite victims, mostly in developing countries, suffer from long-term complications such as deformities, contractures, amputations, visual impairment, renal complications and psychological distress.

**Deaths from SE:**
- **Global:**
  - About 5.4 million snake bites occur globally each year, resulting in 1.8 to 2.7 million cases of envenoming.
  - There are between 81,410 and 1,37,880 deaths and around three times as many amputations and other permanent disabilities each year, caused by snakebites.
- **Indian:**
  - India has seen an estimated 1.2 million snakebite deaths from 2000 to 2019, an average of 58,000 per year.

**WHO’s Roadmap for SE:**
- WHO launched its roadmap with an aim to halve death and disability from snakebite by 2030.
  - In order to create a sustainable market for antivenoms there is a need for a 25% increase in the number of competent manufacturers by 2030.
- WHO has planned a pilot project to create a global antivenom stockpile.
- Integrating snakebite treatment and response into national health plans in affected countries, including better training of health personnel and educating communities.

**Indian Initiatives:**
- Much before the WHO roadmap was launched, researchers from ICMR started community awareness and health system capacity building from the year 2013.
  - They are continuing their work through a national study funded by the National Task Force on snakebite, ICMR.

**Concerns:**
- **Unawareness among Communities:**
  - Lack of awareness, inadequate knowledge of prevention of snakebite and lack of first aid amongst the community, as well as peripheral healthcare workers, delay in receiving lifesaving treatment, and non-availability of trained medical officers for management of snakebite contribute to a higher number of deaths.
  - Belief in a snake god, ability of tamarind seeds or magnets to reduce the venom effect were some of the superstitions.
- **No Information on Venomous and Non-Venomous snake:**
  - There is no IEC (Information, Education, and Communication) material available on the identification of venomous and non-venomous snakes in government healthcare facilities.

**Recommendations:**
- **Curriculum on Snakebite Management:**
  - The study has recommended the inclusion of snakebite management in the curriculum of training institutions of state public health departments in India, mandatory short-term training of medical graduates during their internship and also as a part of the induction training on joining state health services in India.
- **Multi-sectoral Approach:**
  - A multi-sectoral approach of community awareness, capacity building of healthcare facilities for reducing the mortality and morbidity due to snakebite envenoming in India.
NASA's Boeing Starliner Spacecraft

Why in News
Recently, the launch of Boeing’s uncrewed Starliner Orbital Flight Test-2 (OFT-2) has been postponed once again.
- The spacecraft, which is called the Crew Space Transportation-100 (CST-100), is part of an uncrewed test flight to the International Space Station (ISS).
- The mission is part of NASA’s Commercial Crew Program.

Key Points
- About CST-100:
  - The spacecraft has been designed to accommodate seven passengers or a mix of crew and cargo for missions to low-Earth orbit.
  - For NASA service missions to the ISS, it will carry up to four NASA-sponsored crew members and time-critical scientific research.
    - The Starliner is supposed to carry more than 400 pounds of NASA cargo and crew supplies.
  - The Starliner has an innovative, weldless structure and is reusable up to 10 times with a six-month turnaround time.
- Purpose:
  - When this test flight takes off, it will check the capabilities of the spacecraft from launch, docking, atmospheric re-entry and a landing at a desert in the US.
  - The spaceflight will also help NASA to ascertain and certify the transportation system to carry astronauts to and from the space station in the future.
- NASA’s Commercial Crew Program:
  - Its main objective is to make access to space easier in terms of its cost, so that cargo and crew can be easily transported to and from the ISS, enabling greater scientific research.
  - Through this program, NASA plans to lower its costs by sharing them with commercial partners such as Boeing and SpaceX.
- It is also planning to give the companies incentive to design and build the Commercial Orbital Transportation Services (COTS).
  - COTS was a NASA program, announced in 2006 to coordinate the delivery of crew and cargo to the International Space Station (ISS) by private companies.
- By encouraging private companies such as Boeing and SpaceX to provide crew transportation services to and from low-Earth orbit, NASA can focus on building spacecraft and rockets meant for deep space exploration missions.
- Crew-2 mission is the second crew rotation of the SpaceX Crew Dragon and the first with international partners.
  - Crew-2 astronauts joined the members of Expedition 65 (65th long duration expedition to the ISS).
- In May 2020, NASA’s SpaceX Demo-2 test flight lifted off for the ISS carrying two astronauts.
  - The aim of this test flight was to see if SpaceX capsules could be used on a regular basis to ferry astronauts to and from the ISS.

International Space Station (ISS)
- It is a habitable artificial satellite - the single largest man-made structure in low earth orbit. Its first component was launched into orbit in 1998.
- It circles the Earth in roughly 92 minutes and completes 15.5 orbits per day.
- The ISS programme is a joint project between five participating space agencies: NASA (United States), Roscosmos (Russia), JAXA (Japan), ESA (Europe), and CSA (Canada) but its ownership and use has been established by intergovernmental treaties and agreements.
- It serves as a microgravity and space environment research laboratory in which crew members conduct experiments in biology, human biology, physics, astronomy, meteorology, and other fields.
- Continuous presence at ISS has resulted in the longest continuous human presence in low earth orbit.
- It is expected to operate until 2030.
- Recently, the Russian Space Agency Roscosmos launched its biggest space laboratory named Nauka to the International Space Station (ISS).
‘Ashwagandha’ in Covid-19 Recovery

Why in News

Recently, India and the UK have collaborated to conduct a study on ‘Ashwagandha (AG)’ for promoting recovery from Covid-19.

➢ After the trial’s success, ‘Ashwagandha’ will be a proven medicinal treatment to prevent infection and be recognised by the scientific community worldwide.
➢ This is the first time that the Ministry of Ayush has collaborated with a foreign institution to investigate its efficacy on Covid-19 patients.

Key Points

➢ About Ashwagandha:
  - Ashwagandha (Withania somnifera) is a medicinal herb. It is reputed as an immunity enhancer.
  - It is classified as an adaptogen, which means that it can help the body to manage stress.
  - Ashwagandha also boosts brain function and lowers blood sugar and helps fight symptoms of anxiety and depression.
  - Ashwagandha has shown clinical success in treating both acute and chronic rheumatoid arthritis.
    - Rheumatoid arthritis (RA) is an autoimmune disease that can cause joint pain and damage throughout your body.
  - An autoimmune disease is a condition in which your immune system mistakenly attacks your body.

➢ Potential of Ashwagandha:
  - The study suggests Ashwagandha as a potential therapeutic candidate for alleviating the long-term symptoms of Covid-19.
  - Recently, a number of randomised placebo-controlled trials of AG in humans in India had demonstrated its efficacy in reducing anxiety and stress, improving muscle strength and reducing symptoms of fatigue in patients treated for chronic conditions.
  - A randomized controlled trial is a prospective, comparative, quantitative study/experiment performed under controlled conditions with random allocation of interventions to comparison groups.

➢ Clinical Trials:
  - Clinical trials in humans are classified into three phases: phase I, phase II and phase III and in certain countries formal regulatory approval is required to undertake any of these studies.
  - The phase I clinical studies carry out initial testing of a vaccine in small numbers (e.g. 20) of healthy adults, to test the properties of a vaccine, its tolerability, and, if appropriate, clinical laboratory and pharmacological parameters. Phase I studies are primarily concerned with safety.
  - Phase II studies involve larger numbers of subjects and are intended to provide preliminary information about a vaccine’s ability to produce its desired effect (usually immunogenicity) in the target population and its general safety.
  - Extensive phase III trials are required to fully assess the protective efficacy and safety of a vaccine. The phase III clinical trial is the pivotal study on which the decision on whether to grant the licence is based and sufficient data have to be obtained to demonstrate that a new product is safe and effective for the purpose intended.
Oil Spills

Why in News

A new study has confirmed that Stimulating Bacteria (Bioremediation) with nutrients in the cold seawaters of the Canadian Arctic can help decompose diesel and Other Petroleum Oil after Oil Spills.

- Earlier in 2020, the National Institute of Ocean Technology (NIOT), Chennai developed an Eco-Friendly Crude Oil Bioremediation mechanism technology.

Key Points

- Oil-Spill:
  - An oil spill refers to any uncontrolled release of crude oil, gasoline, fuels, or other oil by-products into the environment.
  - Oil spills can pollute land, air, or water, though it is mostly used for oceanic oil spills.

- Major Causes:
  - Oil spills have become a major environmental problem, chiefly as a result of intensified petroleum exploration and production on continental shelves and the transport of large amounts of oils in vessels.
  - Oil spills that happen in rivers, bays and the ocean most often are caused by accidents involving tankers, barges, pipelines, refineries, drilling rigs and storage facilities, but also occur from recreational boats and natural disasters.

  ➢ Environmental Impacts:
    - Threat to Indigenous people:
      - Oil pollution poses health hazards for the indigenous population who depend on seafood.
    - Harmful to aquatic life:
      - Oil on ocean surfaces is harmful to many forms of aquatic life because it prevents sufficient amounts of sunlight from penetrating the surface, and it also reduces the level of dissolved oxygen.
    - Hypothermia:
      - Crude oil ruins the insulating and waterproofing properties of feathers and fur of birds, and thus oil-coated birds and marine mammals may die from hypothermia (decrease in body temperature to below-normal levels).
    - Toxic:
      - Moreover, ingested oil can be toxic to affected animals, and damage their habitat and reproductive rate.
    - Threat to Mangroves:
      - Saltwater marshes and Mangroves frequently suffer from oil spills.

- Economic Impacts:
  - Tourism:
If beaches and populated shorelines are fouled, tourism and commerce may be severely affected.

- **Power Plants:**
  - The power plants and other utilities that depend on drawing or discharging sea water are severely affected by oil spills.

- **Fishing:**
  - Major oil spills are frequently followed by the immediate suspension of commercial fishing.

**Remedies:**

- **Bioremediation:**
  - Bacteria can be used to clean up oil spills in the ocean through bioremediation. Specific bacteria can be used to bioremediate specific contaminants, such as hydrocarbons, which are present in oil and gasoline.
  - Using bacteria such as Paraperlucidibaca, Cycloclasticus, Oleispira, Thalassolituus Zhongshania and some others can help remove several classes of contaminants.

- **Containment Booms:**
  - Floating barriers, called booms, are used to restrict the spread of oil and to allow for its recovery, removal, or dispersal.

- **Skimmers:**
  - They are devices used for physically separating spilled oil from the water’s surface.

- **Sorbents:**
  - Various sorbents (e.g., straw, volcanic ash, and shavings of polyester-derived plastic) that absorb the oil from the water are used.

- **Dispersing agents:**
  - These are chemicals that contain surfactants, or compounds that act to break liquid substances such as oil into small droplets. They accelerate its natural dispersion into the sea.

**Related Laws in India:**

- Presently, there is no law covering oil spill as such and its consequential environmental damage in India but India has “the National Oil Spill Disaster Contingency Plan of 1996 (NOS-DCP)” to handle such situations.
- The document was issued by the Ministry of Defense in 1996; it was last updated in March 2006.

- **Environmental Impact:**
  - It gives the **Indian Coast Guard** the mandate to coordinate with state departments, ministries, port authorities and environmental agencies to assist in oil spill cleaning operations.
  - It was administered by the International Maritime Organization (IMO).

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### Kaziranga National Park: Assam

**Why in News**

Kaziranga has become the first in the country to use satellite phones, which are generally used by the law-enforcing agencies.

- The satellite phones will give an edge to the forest personnel over the poachers and also during emergencies like floods.
- The public is barred from using satellite phones in India. Satellite phones can connect from anywhere as they are directly connected to satellites around the world and do not depend on terrestrial mobile networks, as cellphones do.

**Key Points**

- **Location:**
  - It is located in the State of Assam and covers 42,996 Hectare (ha). It is the single largest undisturbed and representative area in the Brahmaputra Valley floodplain.

- **Legal Status:**
  - It was declared as a **National Park in 1974**.
  - It has been declared a **Tiger Reserve** since 2007. It has a total tiger reserve area of 1,030 sq km with a core area of 430 sq. km.

- **International Status:**
  - It was declared a **UNESCO World Heritage Site** in 1985.
  - It is recognized as **An Important Bird Area** by Bird Life International.

- **Biodiversity:**
It is the home of the world’s most one-horned rhinos.

- Pobitora Wildlife Sanctuary has the highest density of one-horned rhinos in the world and second highest number of Rhinos in Assam after Kaziranga National Park.

- Much of the focus of conservation efforts in Kaziranga are focused on the ‘big four’ species—Rhino, Elephant, Royal Bengal Tiger and Asiatic water buffalo.
  - The 2018 census had yielded 2,413 rhinos and approximately 1,100 elephants.
  - As per the figures of tiger census conducted in 2014, Kaziranga had an estimated 103 tigers, the third highest population in India after Jim Corbett National Park (215) in Uttarakhand and Bandipur National Park (120) in Karnataka.

- Kaziranga is also home to 9 of the 14 species of primates found in the Indian subcontinent.

- Rivers and Highways:
  - National Highway 37 passes through the park area.
  - The park also has more than 250 seasonal water bodies, besides the Diphlu River running through it.

- Other National Parks in Assam are:
  - Manas National Park,
  - Dibru-Saikhowa National Park,
  - Nameri National Park,
  - Rajiv Gandhi Orang National Park.
  - Dehing Patkai National Park.
  - Raimona National Park.

**Four New Ramsar Sites: India’s Wetlands**

**Why in News**

Recently, four more Indian sites - two each from Haryana and Gujarat - have been recognised as wetlands of international importance under the Ramsar Convention.

- Further, according to recent estimates by Wetlands International South Asia, nearly 30% of the natural wetlands in India have been lost in the last three decades. Majorly, the loss of Wetlands is more prominent in Urban areas.

- Wetlands International South Asia was established in 1996, with an office in New Delhi, as a part of Wetlands International network to promote conservation and sustainable development of wetlands in the South Asia region.

**Key Points**

- **About Wetlands:**
  - Wetlands are ecosystems saturated with water, either seasonally or permanently.
  - They include mangroves, marshes, rivers, lakes, deltas, floodplains and flooded forests, rice-fields, coral reefs, marine areas no deeper than 6 metres at low tide, as well as human-made wetlands such as waste-water treatment ponds and reservoirs.
  - Though they cover only around 6% of the Earth’s land surface, 40% of all plant and animal species live or breed in wetlands.

**New Ramsar Sites**

- Recently, the Ramsar Convention has designated four new wetlands in India, as wetlands of global importance. It is an international treaty for the conservation and wise use of wetlands.
  - Bhindawas Wildlife Sanctuary, the largest wetland in Haryana is a human-made freshwater wetland.
  - Sultanpur National Park from Haryana supports more than 220 species of resident, winter migratory and local migratory waterbirds at critical stages of their life cycles.
  - Thol Lake Wildlife Sanctuary in Gujarat lies on the Central Asian Flyway and more than 320 bird species can be found here.
  - Wadhwana Wetland from Gujarat is internationally important for its birdlife as it provides wintering ground to migratory waterbirds, including over 80 species that migrate on the Central Asian Flyway.
  - These wetlands are home to endangered bird species like Egyptian Vulture, Saker Falcon, Sociable Lapwing, and the near threatened Dalmatian Pelican.

- With this, the number of Ramsar sites in India are 46.

- **Role of Urban Wetlands:**
  - **Historical Importance:** The value of wetlands, especially in urban settings, is evidenced through our history.
    - In southern India, the cholas, the Hoysalas built tanks all over the state.
Multi-layered Role: Wetlands not only support high concentrations of biodiversity, but also offer a wide range of important resources and ecosystem services like food, water, fiber, groundwater recharge, water purification, flood moderation, storm protection, erosion control, carbon storage and climate regulation.

Liquid Assets of Cities: They serve as special attributes contributing to the cultural heritage, and have deep connections with a city’s ethos.
- The value of wetlands in securing local livelihoods through activities such as fishing, farming and tourism, is incomparable.

Major Threats to Wetlands:

| Urbanization | Wetlands near urban centres are under increasing developmental pressure for residential, industrial and commercial facilities. |
| Anthropogenic activities | Due to unplanned urban and agricultural development, industries, road construction, impoundment, resource extraction and dredge disposal, wetlands have been drained and transformed, causing substantial economic and ecological losses in the long term. |
| Agricultural activities | Following the Green Revolution of the 1970s, vast stretches of wetlands have been converted to paddy fields. Construction of a large number of reservoirs, canals and dams to provide for irrigation significantly altered the hydrology of the associated wetlands. |
| Hydrologic activities | Construction of canals and diversion of streams and rivers to transport water to lower arid regions for irrigation has altered the drainage pattern and significantly degraded the wetlands of the region. Keoladeo Ghana Sanctuary, Loktak Lake, Chilika Lake, Vembanad Kole are among those severely impacted by dams that affect water and silt flows. |

Deforestation | Removal of vegetation in the catchment leads to soil erosion and siltation. |
Pollution | Unrestricted dumping of sewage and toxic chemicals from industries has polluted many freshwater wetlands. |
Salinization | Over withdrawal of groundwater has led to salinization. |
Aquaculture | Demand for shrimps and fishes has provided economic incentives to convert wetlands and mangrove forests to develop pisciculture and aquaculture ponds. |
Introduced species | Indian wetlands are threatened by exotic introduced plant species such as water hyacinth and salvinia. They clog waterways and compete with native vegetation. |
Climate change | Increased air temperature; shifts in precipitation; increased frequency of storms, droughts, and floods; increased atmospheric carbon dioxide concentration; and sea level rise could also affect wetlands. |

Issues in Wetland Conservation:
- Major regulatory bodies like the Central Wetland Regulatory Authority had limited impact as they only have advisory powers.
- Additionally, existing laws ignore the participation of local communities in governing and monitoring wetlands.
- Further, cities are unable to cater to the water demand due to a policy vacuum as there is no well-defined ‘National Urban Water Policy’ to guide urban water management.
- In addition to urbanisation needs, lack of awareness and knowledge on wetlands and their ecosystem services can be blamed for this widespread loss.

Global Wetland Conservation Initiatives
- The Ramsar convention
- Montreux Record
- World Wetland Day
- Cities4Forests global campaign: It works closely with cities around the world to connect with forests,
emphasizes the importance of wetlands and their multiple benefits to help combat climate change and protect biodiversity in cities.

**Conservation Efforts by India**
- National Plan for Conservation of Aquatic Ecosystems (NPAC)
- Wetlands (Conservation and Management) Rules, 2017
- ISRO carried out the **National Wetland Inventory and Assessment** using remote sensing satellites from 2006 to 2011 and mapped around two lakh wetlands in India.

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**Ban on Single-Use Plastic**

**Why in News**
Recently, the **Ministry Of Environment Forest And Climate Change** has notified the **Plastic Waste Management Amendment Rules, 2021**.
- These rules prohibit specific **single-use plastic** items which have “**low utility and high littering potential**” by **2022**.

**Key Points**
- **About**:
  - **New Rules**:
    - The manufacture, import, stocking, distribution, sale and use of the identified single-use plastic will be prohibited with effect from the 1st July, 2022.
    - The ban will not apply to commodities made of **compostable plastic**.

**Cleaning up**

**Plastic items completely banned from July 1, 2022**
- Ear buds with plastic sticks, plastic sticks for balloons, plastic flags, polystyrene (thermocol) for decoration, plates, cups, glasses, cutlery such as forks, spoons, knives, straw, trays, wrapping or packing films, cigarette packets

**Plastic bags to be thicker**
- From September 30 this year, thickness of plastic carry bags has been increased from 50 microns to 75. From December 31, 2022, the thickness will increase to 100 microns

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- For banning other plastic commodities in the future, other than those that have been listed in this notification, the government has **given industry ten years** from the date of notification for compliance.
- The **permitted thickness of the plastic bags**, currently 50 microns, will be increased to 75 microns from 30th September, 2021, and to 120 microns from the 31st December, 2022.
  - **Plastic bags with higher thickness** are more easily handled as waste and have **higher recyclability**.
- Legal Framework for Banning Plastic: Currently, the **Plastic Waste Management Rules, 2016**, prohibits manufacture, import, stocking, distribution, sale and use of **carry bags and plastic sheets less than 50 microns in thickness** in the country.
- Plastic Waste Management Amendment Rules, 2021 amend the 2016 rules.
- Implementing Agency: The **Central Pollution Control Board**, along with state pollution bodies, will monitor the ban, identify violations, and impose penalties already prescribed under the **Environmental Protection Act, 1986**.
- **Compostable Plastics**:
  - Instead of using plastic made from petrochemicals and fossil fuels, **compostable plastics are derived from renewable materials** like corn, potato, and tapioca starches, cellulose, soy protein, and lactic acid.
  - These are **non-toxic and decompose back into carbon dioxide, water, and biomass** when composted.

**Benefits**
- Made from plants instead of petrochemicals from fossil fuels
- Manufacturing uses less energy and creates fewer greenhouse gas emissions
- Tested to be non-toxic
- Freezer safe
- Certified to break down in commercial composting facilities in 3 - 6 months

**Limitations**
- May be mistaken for traditional plastic by consumers
- Not suitable for hot foods or liquids
- Not suitable for home composting
- Not accepted at many commercial composting facilities

- **Single Use Plastics and Reasons for the Ban**:
  - Single-use plastics, or **disposable plastics**, are used **only once** before they are thrown away or recycled.
  - Plastic is **so cheap and convenient** that it has replaced all other materials from the packaging industry but it takes **hundreds of years to disintegrate**.
If we look at the data, out of 9.46 million tonnes of plastic waste generated every year in our country, 43% is single use plastic.

- Further, Petroleum-based plastic is non biodegradable and usually goes into a landfill where it is buried or it gets into the water and finds its way into the ocean.
- In the process of breaking down, it releases toxic chemicals (additives that were used to shape and harden the plastic) which make their way into our food and water supply.
- Pollution due to single use plastic items has become an important environmental challenge confronting all countries and India is committed to take action for mitigation of pollution caused by littered Single Use Plastics.
- At the 4th United Nations Environment Assembly in 2019, India piloted a resolution on addressing single-use plastic products pollution.
- The Prime Minister of India was also conferred the “champions of the earth” award by the United Nations Environment Programme (UNEP) in 2018 for pledging to eliminate all single-use plastic by 2022.

Initiatives to Curb Plastic Waste
- Swachh Bharat Mission
- India Plastics Pact
- Project REPLAN
- Un-Plastic Collective
- GoLitter Partnerships Project

Olympian Bat

Why in News

Recently, a bat amazed the scientists by flying a distance of more than 2,000 km from London to the Pskov region in northwestern Russia. The bat is dubbed as the “Olympian bat” and has generated keen interest in climate scientists.

Key Points
- The bat belongs to the Nathusius’ pipistrelle species of bats.
- The journey is significant because it is the longest one undertaken by a bat from Britain across Europe.

- Bats belonging to the Nathusius’ pipistrelle species typically weigh less than 10 grams.
- They are known to migrate from summer breeding grounds in northeastern Europe to warmer areas of the continent where they hibernate in trees in buildings.
- The ‘Olympian’ bat’s record is topped by another bat from the same species that flew from Latvia to Spain in 2019 covering a distance of 2,224 km.
- For climate scientists, the journey is a window into studying bat migration and its connection with climate change.
- Increased variation in climatic extremes raises the possibility of bats emerging from hibernation early or at a greater frequency.
- That would not only put hibernating bats at risk from depleted energy stores, but could also affect the birth and survival of pups.
- Thus, Nathusius’ pipistrelle’s range expansion is linked to climate change and future changes in climate will further impact this species.
- The Bat Conservation Trust launched a project called the National Nathusius’ Pipistrelle Project in 2014.
- The project aims to improve understanding of the ecology, current status and conservation threats for Nathusius’ pipistrelles in Great Britain.
- One of the goals of this project is to determine the migratory origins of this species of bats since they might help in understanding its links to climate change.
- There is already some evidence of birds migrating early because of a warming planet.

Hibernation
- It is an inactive state resembling deep sleep in which certain animals living in cold climates pass the winter.
- In hibernation, the body temperature is lowered and breathing and heart rates slow down.
- It protects the animal from cold and reduces the need for food during the season when food is scarce.
- Normally, Polar bears, Rodents, and Bats are some animals that show hibernation.
- Recently, a new research in zebrafish has demonstrated how induced hibernation (torpor) may protect humans from the elements of space, especially radiation, during space flight.
IUCN status of Nathusius’ pipistrelle species of bats: Least concern.

World Lion Day, 2021

Why in News
Every year, World Lion day is observed on 10th August to raise awareness about the conservation of lions.

Key Points
About:
- The initiative to protect the big cats started in 2013 and the first World Lion Day was celebrated that year.
- There has been a decline in 80% of the population of lions in the past 100 years.
  - This is the major reason for the observance of the day to protect these wild cats in their natural habitat.
- This also works on the safety measures of the lion communities.

Lion:
- Scientific Name: Panthera leo
  - The lion is divided into two subspecies: the African lion (Panthera leo leo) and the Asiatic lion (Panthera leo persica).
- Role in the Animal Kingdom:
  - Lions hold an indispensible place in the ecosystem, they are an apex predator of their habitat, responsible for checking the population of grazers, thus helping in maintaining the ecological balance.
  - Lions also contribute to keeping the population of their prey healthy and resilient as they target the weakest members of the herd. Thus, indirectly helping in disease control in the prey population.
- Threats: Poaching, genetic inbreeding arising from a single population inhabiting one place, diseases such as plague, canine distemper or a natural disaster.
- Protection Status:
  - IUCN Red List: Vulnerable
    - Asiatic Lion - Endangered.
  - CITES: Appendix I for populations of India, all other populations are included in Appendix II.
  - Wildlife (Protection) Act 1972: Schedule I
- Status in India:
  - India is home to the majestic Asiatic Lion, who inhabit the protected territory of Sasan-Gir National Park (Gujarat).
  - According to the data from 2020, there are 674 lions in India, which were 523 in 2015.

Conservation Efforts:
- Project Lion: Six new sites apart from the Kuno-Palpur Wildlife Sanctuary (Madhya Pradesh) have been identified under Project Lion that was announced in August 2020, on the lines of Project Tiger and Project Elephant.
  - The programme has been launched for the conservation of the Asiatic Lion, whose last remaining wild population is in Gujarat’s Asiatic Lion Landscape (ALL).
- Earlier, the “Asiatic Lion Conservation Project” was launched by the Union Ministry of Environment, Forests and Climate Change (MoEFCC). It was approved for three financial years from 2018 to 2021.
  - It envisaged scientific management with the involvement of communities in coordination with multi-sectoral agencies for disease control and veterinary care for overall conservation of Asiatic lions.
  - The Lion census is conducted once every five years.
- The other biggest cats found mostly in India, including the Royal Bengal Tiger, Indian leopard, Clouded Leopard, and Snow leopard.

Skyglow: Light Pollution

Why in News
A recent study has shown that the Skyglow forces dung beetles in the city to abandon the Milky Way as their compass, they rely instead on earthbound artificial lights as beacons.

Key Points
About Skyglow:
- The Skyglow, is an omnipresent sheet of light across the night sky in and around cities that can block all but the very brightest stars from view.
The brightening of the night sky over inhabited areas because of streetlights, security floodlights and outdoor ornamental lights cause the Skyglow.

This light floods directly into the eyes of the Nocturnal (active at night) and also into the skies and misleads their path.

‘Skyglow’ is one of the components of light pollution.

Light Pollution:

About:

- The inappropriate or excessive use of artificial light – known as Light Pollution (LP) – can have serious environmental consequences for humans, wildlife, and our climate.

Components of light pollution include:

- Glare: Excessive brightness that causes visual discomfort
- Skyglow: Brightening of the night sky over inhabited areas
- Light trespass: Light falling where it is not intended or needed
- Clutter: Bright, confusing and excessive groupings of light sources.

Causes:

- LP is a side effect of industrial civilization.
- Its sources include building exterior and interior lighting, advertising, commercial properties, offices, factories, streetlights, and illuminated sporting venues.

Effects:

- Wastes Energy and Money:
  - Lighting that emits too much light or shines when and where it’s not needed is wasteful. Wasting energy has huge economic and environmental consequences.
- Disrupting the ecosystem and wildlife:
  - Plants and animals depend on Earth’s daily cycle of light and dark rhythm to govern life-sustaining behaviors such as reproduction, nourishment, sleep and protection from predators.
  - Scientific evidence suggests that artificial light at night has negative and deadly effects on many creatures including amphibians, birds, mammals, insects and plants.

1. Ex: A study has now shown how nocturnal dung beetles are forced to search for cues in their immediate surroundings when they can no longer navigate using natural light from the night sky.

- Harming human health:
  - Like most life on Earth, humans adhere to a Circadian Rhythm — our biological clock — a sleep-wake pattern governed by the day-night cycle. Artificial light at night can disrupt that cycle.

Solutions:

- The simple solution is to reduce animals’ experience of direct and indirect light pollution: turning off unnecessary lights at night.
- Where lights cannot be turned off, they can be shielded so that they do not shed light into the surrounding environment and sky.
- The International Dark-Skies Association has certified more than 130 ‘International Dark Sky Places’, where artificial lighting has been adjusted to reduce skyglow and light trespass. However, nearly all are in developed countries in the northern hemisphere.
- Less-developed regions are often both species-rich and, currently, less light-polluted, presenting an opportunity to invest in lighting solutions before animals there are seriously affected.
New Frog Species: Minervarya Pentali

Why in News
Recently, a new frog species was discovered in the Western Ghats and named after former DU Vice-Chancellor and plant geneticist Deepak Pental.

Key Points
- The new frog species named Minervarya Pentali belongs to the family of Dicroglossidae.
  - The family Dicroglossidae comprises 202 species of semiaquatic frogs distributed by the tropical and subtropical regions of Africa and Asia and Papua New Guinea.
  - The family contains large-sized (e.g., genus Hoplobatrachus) and dwarf species, with a total length about 30 mm (e.g., genus Nannophrys).
- It was discovered from the Western Ghats biodiversity hotspot, extending along the southwest coast of the Indian Peninsula.
- This new species is endemic to the southern Western Ghats.
- This species is also among the smallest known Minervarya (genus) frogs.

The Western Ghats
- These are the mountain ranges running parallel along the western coast of India starting from Gujarat and ending in Tamil Nadu.
- Gujarat, Maharashtra, Goa, Karnataka, Tamil Nadu and Kerala are the six Indian states covered by Western Ghats.
- The mountain range is also a “Hottest Hotspot” of biodiversity.

Ozone Levels Exceeding Permitted Levels

Why in News
Recently, a Centre for Science and Environment (CSE) study has found that ozone levels are exceeding the permitted levels even during winter in Delhi-NCR, making the smog more “toxic”.
- Despite the pandemic and lockdowns, more days and locations witnessed higher and longer duration of ozone spells.
- CSE is a public interest research and advocacy organisation based in New Delhi.

Ozone
- Ozone (composed of three atoms of oxygen) is a gas that occurs both in the Earth’s upper atmosphere and at ground level. Ozone can be “good” or “bad” for health and the environment, depending on its location in the atmosphere.
  - The ‘good’ ozone present in the earth’s stratosphere layer protects human beings from harmful Ultraviolet (UV) radiation whereas the ground level ozone is highly reactive and can have adverse impacts on human health.
  - Ground level ozone is dangerous for those suffering from respiratory conditions and asthma.

Smog
- Smog is air pollution that reduces visibility.
- The term “smog” was first used in the early 1900s to describe a mix of smoke and fog.
- The smoke usually came from burning coal. Smog is common in industrial areas, and remains a familiar sight in cities today. Today, most of the smog we see is Photochemical Smog.
  - Photochemical smog is produced when sunlight reacts with nitrogen oxides (NOx) and at least one volatile organic compound (VOC) in the atmosphere.
Nitrogen oxides come from car exhaust, coal power plants, and factory emissions. VOCs are released from gasoline, paints, and many cleaning solvents. When sunlight hits these chemicals, they form airborne particles and ground-level ozone - or smog.

Key Points

- **Now a Year-round Menace:**
  - Contrary to the notion that Ozone is a summer phenomenon, it has been found that gas has emerged as an equally strong concern during winter as well.

- **Occasional Exceedance:**
  - The city-wide average largely remains within the standard with just occasional exceedance. But the 'good' category days have fallen to 115 days in 2020, which is 24 days less than in 2019 in Delhi.
  - A location-wise analysis shows that exceeding the eight-hour average standard is quite widely distributed in the city.
  - Even smaller towns of NCR, including Bulandshahr in Uttar Pradesh and Bhiwani in Haryana, appeared in the top 20 list of ozone-afflicted towns and cities. South Delhi locations dominate the list with four mentions in top 10.

- **Suggestions:**
  - The study shows that the transport sector is the highest contributor to NOx and VOCs, hence there is a need to take strong action on these high emitters of NOx and VOCs including vehicles and other industries.
  - Ozone levels are found to be exceeding the mark of 100 μg/m³ even during winter and are highly sensitive to solar radiation. Reducing the gases will also reduce secondary particles formed from these gases.
  - Ozone is now a round-the-year problem that is urgent and the situation demands refinement of a clean air action plan to add strategies for ozone mitigation, with stronger action on vehicles, industry and waste burning.
  - It is important to calibrate AQI (Air Quality Index) to report the most polluted eight-hour average of the day, ideally making it an hourly alert. Also the current practice of only city averaging needs to change to include alerts based on the worst affected area as is the global good practice.

- **Government Efforts:**
  - Development of the National AQI for public information under the aegis of the Central Pollution Control Board (CPCB). AQI has been developed for eight pollutants viz. PM2.5, PM10, Ammonia, Lead, nitrogen oxides, sulfur dioxide, ozone, and carbon monoxide.
  - The introduction of BS-VI vehicles, push for electric vehicles (EVs), Odd-Even as an emergency measure and construction of the Eastern and Western Peripheral Expressways to reduce vehicular pollution.
  - Implementation of the Graded Response Action Plan (GRAP) to tackle the rising pollution in the Capital. It includes measures like shutting down thermal power plants and a ban on construction activities.
  - Launch of the National Clean Air Programme (NCAP): In order to deal with the issue of air pollution in a comprehensive manner at national level, the government came up with the National Clean Air Programme (NCAP) with the goal to meet average ambient air quality standards at all locations in the country.

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**World Elephant Day**

**Why in News**

On the occasion of World Elephant Day (12th August) the Union Environment Minister made public the population estimation protocol to be adopted in the all-India elephant and tiger population estimation in 2022.

- World Elephant Day was launched in 2012 to bring attention to the urgent plight of Asian and African elephants.

**Key Points**

- **Current Data on Elephants in India:**
  - According to the last count in 2017, there were 29,964 elephants in India. Which is a slight increase from 2012’s mean of 29,576 elephants.

- **Asian Elephants:**
  - About:
There are three subspecies of Asian elephant which are the Indian, Sumatran and Sri Lankan.

The **Indian subspecies has the widest range** and accounts for the majority of the remaining elephants on the continent.

**Global Population:** Estimated 20,000 to 40,000.

- **Protection Status:**
  - IUCN Red List: Endangered.
  - CITES: Appendix I

**African Elephants:**

- **About:**
  - There are two subspecies of African elephants, the Savanna (or bush) elephant and the Forest elephant.
  - **Global Population:** Around 4,00,000.
  - Earlier in July 2020, Botswana (Africa) witnessed the death of hundreds of elephants.

- **Protection Status:**
  - IUCN Red List Status:
    - African Forest Elephant: Critically Endangered
  - CITES: Appendix II

**Concerns:**

- Escalation of poaching.
- Habitat loss.
- **Human-elephant conflict.**
- Mistreatment in captivity.
- Abuse due to elephant tourism.
- Rampant mining, Corridor destruction.

**Steps Taken for Conservation:**

- Plans and programmes to arrest their poachers and killers.
- Declaration and establishment of various elephant reserves across the states. For example, Mysuru and Dandeli elephant reserves in Karnataka.
- Cleaning areas from lantana and eupatorium (invasive species) as they prevent the growth of grass for elephants to feed on.
- Barricades to prevent man-elephant conflicts.
- Measures for establishment of a cell to study forest fire prevention.
- Gaj Yatra which is a nationwide awareness campaign to celebrate elephants and highlight the necessity of securing elephant corridors.

**Monitoring the Illegal Killing of Elephants (MIKE) programme,** launched in 2003, is an international collaboration that tracks trends in information related to the illegal killing of elephants from across Africa and Asia, to monitor effectiveness of field conservation efforts.

**Project Elephant:** It is a centrally sponsored scheme and was launched in February 1992 for the protection of elephants, their habitats and corridors.

- The Ministry of Environment, Forest and Climate Change provides financial and technical support to major elephant range states in the country through the project.
- Even mahouts (people who work with, ride and tend an elephant) and their families play an important part in the welfare of elephants.
- Recently, the Supreme Court (SC) upheld the 2011 order of the Madras High Court (HC) on the Nilgiris elephant corridor, affirming the right of passage of the animals and the closure of resorts in the area.

**Atlantic Ocean Current System: AMOC**

**Why in News**

According to the recently released IPCC’s Report, Atlantic Meridional Overturning Circulation (AMOC) is losing its stability and is very likely to decline over the 21st century.

- The ocean has an interconnected, current, or circulation, system powered by wind, tides, the Earth’s rotation (Coriolis effect), the sun (solar energy), and water density differences.

**Key Points**

- **About AMOC:**
  - It is a large system of ocean currents.
  - It is the Atlantic branch of the ocean conveyor belt or ThermoHaline Circulation (THC), and distributes heat and nutrients throughout the world’s ocean basins.

- **Working of AMOC:**
  - AMOC carries warm surface waters from the tropics towards the Northern Hemisphere, where it cools and sinks.
Ocean Currents

About:
- Ocean currents are located at the ocean surface and in deep water below 300 meters. They can move water horizontally and vertically and occur on both local and global scales.

Surface Currents:
- Surface currents in the ocean are driven by global wind systems that are fueled by energy from the sun. Patterns of surface currents are determined by wind direction, Coriolis forces from the Earth’s rotation, and the position of landforms that interact with the currents.
- Surface wind-driven currents generate upwelling currents in conjunction with landforms, creating deepwater currents.
  - Upwelling is a process in which deep, cold water rises toward the surface.
- Along the east coast of the US, the Gulf Stream carries warm water from the equatorial region to the North Atlantic Ocean, keeping the southeast coast relatively warm.
  - Along the west coast of the US, the California Current carries cold water from the polar region southward, keeping the west coast relatively cooler than the east coast.
- Gyre, is a vast circular system made up of ocean currents that spirals about a central point.
  - Such as the Gulf Stream–North Atlantic–Norway Current in the Atlantic Ocean and the Kuroshio–North Pacific Current in the Pacific Ocean.

Deep Water Currents:
- Currents may also be caused by density differences in water masses due to temperature (thermo) and salinity (haline) variations via a process known as thermohaline circulation.

Causes:
- Climate models have long predicted that global warming can cause a weakening of the major ocean systems of the world.
- Freshwater inflow from the melting of the Greenland ice sheet.
  - In July 2021, researchers noted that a part of the Artic’s ice called “Last Ice Area” has also melted.
  - The freshwater from the melting ice reduces the salinity and density of the water.
  - Now, the water is unable to sink as it used to and weakens the AMOC flow.
- Indian Ocean may also be helping the slowing down of AMOC.
- Increasing precipitation and river run-off.

Importance of AMOC:
- It plays a critical role in redistributing heat and regulating weather patterns around the world.

Concerns:
- The AMOC decline is not just a fluctuation or a linear response to increasing temperatures but likely means the approaching of a critical threshold beyond which the circulation system could collapse.
These currents **move water masses through the deep ocean**—taking nutrients, oxygen, and heat with them.

- **Conveyor Belt:**
  - Density differences in ocean water contribute to a **global-scale circulation system**, also called the **global conveyor belt**. It includes both surface and deep ocean currents that circulate the globe in a 1,000-year cycle.
  - The global conveyor belt’s circulation is the **result of two simultaneous processes**: warm surface currents carrying less dense water away from the Equator toward the poles, and cold deep ocean currents carrying denser water away from the poles toward the Equator.
  - The ocean’s global circulation system plays a **key role in distributing heat energy**, regulating weather and climate, and cycling vital nutrients and gases.

**Climate Change 2021 Report: IPCC**

**Why in News**

Recently, the **Intergovernmental Panel on Climate Change (IPCC)** released the first part of its **Sixth Assessment Report (AR6)** titled **Climate Change 2021: The Physical Science Basis**.

- It is prepared by the scientists of **Working Group-I**.
- The **two remaining parts would be released in 2022**.
- It noted that global **net-zero by 2050** was the minimum required to keep the temperature rise to 1.5 degree Celsius.
- It sets the stage for the **Conference of Parties (CoP) 26** conference in **November 2021**.

**Key Points**

- **Average Surface Temperature:**
  - The average surface temperature of the Earth will cross 1.5 °C over pre-industrial levels in the next 20 years (By 2040) and 2°C by the middle of the century without sharp reduction of emissions.
  - In 2018, the IPCC’s **Special Report Global Warming of 1.5°C** had estimated that two-fifths of the global population lived in regions with warming above 1.5°C.

**Alarm bells**

A look at some of the observations and forecasts made by the panel on climate change

- Heatwaves and humid heat stress will become more intense and frequent over Southeast Asia during the 21st century.
- Both annual and summer monsoon precipitation will increase, with enhanced interannual variability over Southeast Asia.
- Heat extremes have increased while cold extremes have decreased, and these trends will continue over the coming decades.

- **The last decade was hotter than any period of time in the past 1,25,000 years**. Global surface temperature was 1.09°C higher in the decade between 2011-2020 than between 1850-1900.
- This is the **first time** that the IPCC has said that the **1.5°C warming was inevitable even in the best case scenario**.

**Carbon dioxide (CO₂) Concentrations:**

- They are the **highest in at least two million years**. Humans have emitted 2,400 billion tonnes of CO₂ since the late 1800s.
- Most of this can be **attributed to human activities, particularly the burning of fossil fuels**.
  - The effect of human activities has **warmed the climate at a rate unprecedented in 2,000 years**.
  - The world has already **depleted 86% of it’s available carbon budget**.

**Impact of Global Warming:**

- **Sea-Level Rise:**
  - **Sea-level rise** has tripled compared with 1901-1971. The Arctic Sea ice is the lowest it has been in 1,000 years.
  - Coastal areas will see continued sea-level rise throughout the 21st century, resulting in **coastal erosion and more frequent and severe flooding in low-lying areas**.
About 50% of the sea level rise is due to thermal expansion (when water heats up, it expands, thus warmer oceans simply occupy more space).

- Precipitation & Drought:
  - Every additional 0.5 °C of warming will increase hot extremes, extreme precipitation and drought. Additional warming will also weaken the Earth’s carbon sinks present in plants, soils, and the ocean.

- Heat Extremes:
  - Heat extremes have increased while cold extremes have decreased, and these trends will continue over the coming decades over Asia.

- Receding Snowline & Melting Glaciers:
  - Global Warming will have a serious impact on mountain ranges across the world, including the Himalayas.
  - The freezing level of mountains are likely to change and snowlines will retreat over the coming decades.
  - Retreating snowlines and melting glaciers is a cause for alarm as this can cause a change in the water cycle, the precipitation patterns, increased floods as well as an increased scarcity of water in the future in the states across the Himalayas.
  - The level of temperature rise in the mountains and glacial melt is unprecedented in 2,000 years. The retreat of glaciers is now attributed to anthropogenic factors and human influence.

- Indian Sub-continent Specific Findings:
  - Heatwaves: Heatwaves and humid heat stress will be more intense and frequent during the 21st century over South Asia.
  - Monsoon: Changes in monsoon precipitation are also expected, with both annual and summer monsoon precipitation projected to increase.
    - The South West Monsoon has declined over the past few decades because of the increase of aerosols, but once this reduces, we will experience heavy monsoon rainfall.
  - Sea Temperature: The Indian Ocean, which includes the Arabian Sea and Bay of Bengal, has warmed faster than the global average.
    - The sea surface temperature over Indian ocean is likely to increase by 1 to 2 °C when there is 1.5°C to 2°C global warming.
  - In the Indian Ocean, the sea temperature is heating at a higher rate than other areas, and therefore may influence other regions.

- Net- Zero Emissions:
  - About:
    - It means that all man-made greenhouse gas emissions must be removed from the atmosphere through reduction measures, thus reducing the Earth’s net climate balance, after removal via natural and artificial sink, to zero.
    - This way humankind would be carbon neutral and global temperature would stabilise.
  - Current Situation:
    - Several countries, more than 100, have already announced their intentions to achieve net-zero emissions by 2050. These include major emitters like the United States, China and the European Union.
    - India, the third largest emitter in the world, has been holding out, arguing that it was already doing much more than it was required to do, performing better, in relative terms, than other countries.
      - Any further burden would jeopardise its continuing efforts to pull its millions out of poverty.
    - IPCC has informed that a global net-zero by 2050 was the minimum required to keep the temperature rise to 1.5°C. Without India, this would not be possible.
      - Even China, the world’s biggest emitter, has a net-zero goal for 2060.

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Intergovernmental Panel on Climate Change

- It is the international body for assessing the science related to climate change.
- It was set up in 1988 by the World Meteorological Organization (WMO) and United Nations Environment Programme (UNEP) to provide policymakers with regular assessments of the scientific basis of climate change, its impacts and future risks, and options for adaptation and mitigation.
- IPCC assessments provide a scientific basis for governments at all levels to develop climate related policies, and they underlie negotiations at the UN Climate Conference – the United Nations Framework Convention on Climate Change (UNFCCC).
IPCC Assessment Reports

- Every few years (about 7 years), the IPCC produces assessment reports that are the most comprehensive scientific evaluations of the state of earth’s climate.
- So far, five assessment reports have been produced, the first one being released in 1990. The fifth assessment report had come out in 2014 in the run up to the climate change conference in Paris.
- The Assessment Reports - by three working groups of scientists.
  - Working Group-I - Deals with the scientific basis for climate change.
  - Working Group-II - Looks at the likely impacts, vulnerabilities and adaptation issues.
  - Working Group-III - Deals with actions that can be taken to combat climate change.

India Plastics Pact

Why in News

The India Plastics Pact, the first in Asia, will be launched in September in collaboration with Confederation of Indian Industries (CII) and World Wide Fund for Nature (WWF).

- Recently, a report published on closing the plastic circular Gap, suggested that there is a dire need to make large scale global interventions to manage plastic waste.

Plastic Pacts

- The Plastics Pacts are business-led initiatives and transform the plastics packaging value chain for all formats and products.
- The Pacts bring together everyone from across the plastics value chain to implement practical solutions.
- All Pacts unite behind four targets:
  - To eliminate unnecessary and problematic plastic packaging through redesign and innovation;
  - To ensure all plastic packaging is reusable or recyclable,
  - To increase the reuse, collection, and recycling of plastic packaging,
  - And to increase recycled content in plastic packaging.
- The first Plastics Pact was launched in the U.K. in 2018.

Key Points

- About:
  - The India Plastics Pact is an ambitious, collaborative initiative that aims to bring together businesses, governments and NGOs across the whole value chain to set time-bound commitments to reduce plastics from their value chains.
  - While the India Plastics Pact will be active in India, it will link globally with other Plastics Pacts.
  - The Pact will develop a road map for guidance, form action groups composed of members, and initiate innovation projects.
  - Members’ accountability is ensured through ambitious targets and annual data reporting.
  - The vision, targets and ambition of the India Plastics Pact are aligned with the circular economy principles of the Ellen MacArthur Foundation’s New Plastics Economy.

- Aim:
  - The Pact aims to transform the current linear plastics system into a circular plastics economy that will:
    - Reduce the use of problematic plastics,
    - Retain valuable materials in the economy for use in other products,
    - Generate jobs, investment and opportunities in the plastics system in India.
  - It aims to promote public-private collaborations that enable solutions to eliminate the plastics we do not need, bring innovation to packaging design, and to capture the value of the plastics we use.

- Need for Plastic Pacts:
  - Indian Scenario:
    - India generates 9.46 million tonnes of plastic waste annually.
    - 40% plastic waste goes uncollected.
    - 43% of all plastics produced in India are used for packaging, majority of them being single-use.
    - However, viewed from the angle of livelihoods, post-consumer segregation, collection and disposal of plastics make up about half of the income of 1.5-4 million waste-pickers in India.
  - Global Scenario:
    - Mismanagement of more than 7.7 billion metric tonnes of plastic waste globally over...
the next 20 years is expected, which is equivalent to 16-times the weight of the human population.

- Among the many applications of plastic, plastic packaging is the largest.
- A 2019 report by the Center for International Environmental Law suggests that by 2050, greenhouse gas emissions from plastic could reach over 56 gigatonnes, 10-13% of the remaining carbon budget.

**Expected Outcome:**
- It can be expected to boost demand for recycled content, investments in recycling infrastructure, jobs in the waste sector, and beyond.
- The Pact will support the Extended Producer Responsibility framework of the government and improve solid waste management as envisioned in the Swachh Bharat Abhiyan.
- Integral to the Pact’s framework is the involvement of the informal waste sector crucial to post-consumer segregation, collection and processing of plastic waste.
- Apart from benefits to society and economy, delivering the targets will drive circularity of plastics and help tackle pollution.
- They will lead to significant reduction in greenhouse gas emissions.

### Circular Economy

- The circular economy is a model of production and consumption, which involves sharing, leasing, reusing, repairing, refurbishing and recycling existing materials and products as long as possible. In this way, the life cycle of products is extended.
- In practice, it implies reducing waste to a minimum. When a product reaches the end of its life, its materials are kept within the economy wherever possible. These can be productively used again and again, thereby creating further value.

**Principles in Ellen MacArthur Foundation’s New Plastics Economy:**

- It is based on three principles:
  - Design out waste and pollution.
  - Keep products and materials in use.
  - Regenerate natural systems.

### Stubble Burning

**Why in News**

Recently, some experts advised that the government should speed up implementation of alternatives to stubble burning.

- The centre, facing criticism from farmers protesting against the farm laws, had committed to removing a clause in the Air Commission Bill, 2021 that would penalise farmers for burning stubble, an important contributor to noxious air quality.

**Key Points**

- **About:**
  - Stubble (parali) burning is the act of setting fire to crop residue to remove them from the field to sow the next crop.
  - In order to plant the next winter crop (Rabi crop), farmers in Haryana and Punjab have to move in a very short interval and if they are late, due to short winters these days, they might face considerable losses. Therefore, burning is the cheapest and fastest way to get rid of the stubble.
  - If parali is left in the field, pests like termites may attack the upcoming crop.
  - The precarious economic condition of farmers doesn’t allow them to use expensive mechanised methods to remove stubble.
  - It begins around October and peaks in November, coinciding with the withdrawal of southwest monsoon.

- **Major Causes:**
  - **Technology:**
    - The problem arises due to the use of mechanised harvesting which leaves several inches of stubble in the fields.
    - Earlier, this excess crop was used by farmers for cooking, as hay to keep their animals warm or even as extra insulation for homes.
    - But, now the stubble use for such purposes has become outdated.
  - **Adverse Impact of Laws:**
    - Implementation of the Punjab Preservation of Subsoil Water Act (2009) made the time period...
of stubble burning coincident with the onset of winter in Northern India.

- **Late transplanting of paddy** during Kharif season to prevent water loss as directed by PPSW Act (2009) had left farmers with little time between harvesting and preparing the field for the next crop and hence farmers are resorting to the burning of stubble.

  - **High Silica Content:**
    - Rice straw is considered useless as fodder in the case of non-basmati rice, because of its high silica content.

- **Effects of Stubble Burning:**
  - **Pollution:**
    - Open stubble burning emits large amounts of toxic pollutants in the atmosphere which contain harmful gases like methane (CH\(_4\)), Carbon Monoxide (CO), Volatile organic compound (VOC) and carcinogenic polycyclic aromatic hydrocarbons.
    - After the release in the atmosphere, these pollutants disperse in the surroundings, may undergo a physical and chemical transformation and eventually adversely affect human health by causing a thick blanket of smog.
  - **Soil Fertility:**
    - Burning husk on the ground destroys the nutrients in the soil, making it less fertile.
  - **Heat Penetration:**
    - Heat generated by stubble burning penetrates into the soil, leading to the loss of moisture and useful microbes.

- **Alternatives to Stubble Burning:**
  - **In-Situ Treatment of Stubble** – For example crop residue management by zero-tiller machine and Use of bio-decomposers.
  - **Ex-Situ (off site) Treatment** – For example use of rice straw as cattle fodder.
  - **Use of Technology** – For example Turbo Happy Seeder (THS) machine, which can uproot the stubble and also sow seeds in the area cleared. The stubble can then be used as mulch for the field.
  - **Changing Cropping Pattern** – It is the deeper and more fundamental solution.

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### Net Zero Carbon Targets and Climate Change: Oxfam Report

#### Why in News

Recently, a report (Tightening the Net) published by Oxfam International has said that announcing Net Zero Carbon Targets may be a dangerous distraction from the priority of cutting carbon emissions.

- Many countries like New Zealand, UK, US, China and the European Union have set net-zero targets on greenhouse gas emissions to tackle climate change.
- The report emphasises that reducing emissions cannot be considered a substitute for cutting emissions.

**Oxfam International** is a group of independent non-governmental organisations formed in 1995.

#### Key Point

- **Net-zero:**
  - Net-zero, also means carbon neutrality, is a state in which a country’s emissions are compensated by absorption and removal of greenhouse gases from the atmosphere.
  - It does not mean that a country would bring down its emissions to zero. That would be gross-zero, which means reaching a state where there are no emissions at all, a scenario hard to comprehend.
  - One way by which carbon can be absorbed is by creating carbon sinks. This way, it is even possible for a country to have negative emissions, if the absorption and removal exceed the actual emissions.
  - Until recently, the Amazon rainforests in South America, which are the largest tropical forests in the world, were carbon sinks. But eastern parts of these forests have started emitting CO\(_2\) instead of absorbing carbon emissions as a result of significant deforestation.
  - **Bhutan has negative emissions**, because it absorbs more than it emits.

- **Countries that have announced net-zero Targets (Some Examples):**
  - The European Union has a plan, called “**Fit for 55**”, to deliver the carbon neutrality goal.
China also announced that it would become net-zero by the year 2060 and that it would not allow its emissions to peak beyond what they are in 2030.

The International Energy Agency’s (IEA) has released its Net Zero Emissions (NZE) Roadmap - named ‘Net Zero by 2050’.

**Findings of the Report:**

- **A very big area is needed to control energy sector emissions:**
  - If the entire energy sector-whose emissions continue to soar- were to set similar ‘net-zero’ targets, it would require an area of land nearly the size of the Amazon rainforest, equivalent to a third of all farmland worldwide.

- **More Forests required:**
  - If the challenge of change is tackled only by way of planting more trees, then about 1.6 billion hectares of new forests would be required to remove the world’s excess carbon emissions by the year 2050.

- **Land-Based Methods can raise food crises:**
  - Currently, countries’ plans to cut emissions will only lead to a 1% reduction by the year 2030.
  - Significantly, if only land-based methods (Forestation) to deal with climate change are used, food crises are expected to rise even more. Oxfam estimates that they could rise by 80% by the year 2050.

- **Need to cut emissions significantly:**
  - To limit global warming below 1.5°C and to prevent irreversible damage from climate change, the world needs to collectively be on track and should aim to cut emissions by 45% by 2030 from 2010 levels, “with the sharpest being made by the biggest emitters.”

- **Analysis (Net-Zero vs Climate Change):**
  - ‘Net-Zero’ Reduces the Responsibility of ‘Biggest Emitters’:
    - Many governments and companies are adopting net zero climate targets as they recognize the urgency of the climate crisis.
    - Without clear definition, however, these targets risk being reliant on using vast swathes of land in low-income countries to capture carbon emissions, allowing the biggest emitters to avoid making significant cuts in their own emissions.

- **May Increase the Demand for Land:**
  - It could also lead to an explosion in demand for land which, if not subject to careful safeguards, might risk increasing hunger and fueling land inequality.

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**Red Tide**

**Why in News**

Florida has been battling outbreaks of red tide, caused by the algae Karenia brevis, for several years.

- This year’s bloom may have been aggravated due to the release of contaminated water into Tampa Bay earlier.
- Tampa Bay, arm of the Gulf of Mexico, indenting the west coast of Florida, US.

**Key Points**

- **About:**
  - Harmful Algal Blooms, or HABs, occur when colonies of algae grow out of control and produce toxic or harmful effects on people, fish, shellfish, marine mammals and birds.
  - While many people call these blooms ‘red tides,’ scientists prefer the term harmful algal bloom.
  - One of the best known HABs in the US occurs nearly every summer along Florida’s Gulf Coast.
This type of bloom is caused by a species of dinoflagellate known as Karenia brevis.

On the other hand, blooms in freshwater lakes and reservoirs are most commonly caused by blue-green algae (also known as cyanobacteria).

Blue-green algae blooms have a direct relation to agricultural and urban runoff. Nutrient pollution encourages the growth of cyanobacteria.

**Causes of Algal Blooms:**

- **Eutrophication:**
  - Nutrients promote and support the growth of algae and Cyanobacteria. The Eutrophication (nutrient enrichment) of waterways is considered as a major factor.

- **Temperature:**
  - Blooms are more likely to happen in summer or fall but can occur any time of year.

- **Turbidity:**
  - Turbidity is caused by the presence of suspended particles and organic matter in the water column.
  - When turbidity is low, more light can penetrate through the water column. This creates optimal conditions for algal growth.

**Implications of Algal Bloom:**

- Produce extremely dangerous toxins that can sicken or kill people and animals.
  - Fish contaminated with the algae and eaten by other organisms, including humans, can be harmful to them.
  - Algal blooms can also impact aquaculture, or the farming of marine life.

- There have also been complaints of respiratory distress in humans due to red tide.

- Algal Blooms deprive aquatic organisms of Sunlight and oxygen and negatively impact a variety of species that live below the water surface.

- Create Dead Zones in the water.
  - “Dead zone” is a more common term for hypoxia, which refers to a reduced level of oxygen in the water.

- Raise treatment costs for drinking water. Hurt industries that depend on clean water.

**Mitigating Risks from HAB:**

- Multiple treatment of effluent:
  - Simple treatment options are not effective; multiple treatment steps are typically needed to remove algae toxins.
  - Using tertiary sewage treatment methods to remove phosphate and nitrate before discharging the effluent into rivers and lakes.

- **Nitrogen testing & modelling:**
  - N-Testing is a technique to find the optimum amount of fertilizer required for crop plants. It will reduce the amount of nitrogen lost to the surrounding area.

- **Encouraging organic farming:**
  - Reducing the overuse of fertilizers in agriculture and encouraging organic farming can reduce the bulk flow of runoff and can be effective for reducing severe algal blooms.

- **Reduction in nitrogen emission from vehicles and power plants.**

- **Reducing the use of phosphates as builders in detergents.**

**Measures to cope with Algal Bloom in India:**

- **Algal Bloom Information Service:** ABIS provides timely information on harmful algal blooms, which are detrimental to coastal fisheries, water quality and also tend to induce respiratory problems within the coastal population from time to time.

- **ISRO’s Oceansat-2 satellite** launched in 2009 can cover larger areas and provide global ocean colour.

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**Dairy Sector and Climate Change**

**Why in News**

The dairy industry has been a subject of intense debate in recent years, fueled by climate change crisis concerns worldwide as well as the advancement of various plant-based alternatives claiming to be more sustainable replacements.

**Key Points**

- **About:**
  - With the help of White Revolution, India has transitioned from a milk-deficient country to the largest producer of milk globally.
The Anand model (Amul), which has been replicated across the country, boosted milk production.

- Harvesting animals for dairy and animal-based products is crucial for food security, poverty alleviation and other social needs.
- However, there are harmful consequences of animal harvesting on climate.
- Further, animal rearing has been criticized heavily by non-profit organisations like People for the Ethical Treatment of Animals (PETA), for performing cruelty against animals.

**Importance of Dairy Sector:**

- **Economic Dependence:** Harvesting animals for dairy and animal-based products in India is a major source of livelihood for 150 million dairy farmers.
  - The dairy sector accounts for 4.2% of the national gross domestic product.
  - Dairy sector is the second-largest employment sector after agriculture in India.
- **Social Importance:** Dairy products are a rich source of essential nutrients that contributes to a healthy and nutritious diet.
  - With demand for high-quality animal sourced protein increasing globally, the dairy sector is well placed to contribute to global food security and poverty reduction through the supply of dairy products.

**Impact of Dairy Sector on Climate Change:**

- **GHG Emission:** Agriculture contributes approximately 16% of India’s greenhouse gas (GHG) emissions which is released by cattle during dairy farming.
  - Methane from animal waste contributes about 75% of the total GHG emissions of the dairy sector.
  - Recently, Indian Council of Agricultural Research (ICAR) has developed an anti-methanogenic feed supplement ‘Harit Dhara’ (HD), which can cut down cattle methane emissions by 17-20% and can also result in higher milk production.
- The three major GHGs emitted from agri-food systems, namely methane (CH₄), nitrous oxide (N₂O) and carbon dioxide (CO₂).
- **Increasing Pressure on Natural Resources:** With this increasing demand for dairy, there is growing pressure on natural resources, including freshwater and soil.
  - Multinational companies such as Nestle and Danone have been accused of promoting water-intensive dairy industry in Punjab and the neighbouring states, which is fast depleting groundwater.
  - Unsustainable dairy farming and feed production can lead to the loss of ecologically important areas, such as wetlands, and forests.
  - The alarming loss of biodiversity is attributed to water- and energy-intensive crops needed to feed the cattle.

**Others Arguments Against Dairy Sector:**

- **Cruelty Against Animals:** Despite guidelines for appropriate handling of cattle, cruel practices continue unabated to boost production efficiencies as demand for dairy and meat continues to grow. These include:
  - Artificial insemination,
  - Widespread use of growth hormones (oxytocin) to boost milk production,
  - Slaughter of male calves,
  - Abandoning cattle that are sterile,
  - Selling livestock to slaughterhouses and tanneries when they can no longer produce milk, etc.
- **Zoonotic Diseases:** Animal exploitation through animal farming, destruction of natural habitats, livestock-associated deforestation, hunting and trading of wildlife are the leading cause of zoonotic diseases caused by germs that spread between animals and humans.
  - The novel coronavirus disease (Covid-19) pandemic is the latest in the long list of such diseases.
- **Food Adulteration:** Milk and milk products in India are not free from adulteration.
  - A recent Food Safety and Standards Authority of India (FSSAI) report revealed the presence of aflatoxin M1 and hormone residues in them beyond permissible limits through unregulated feed and fodder.
This led to a variety of lifestyle diseases in humans.

**The Proposed Alternative:**
- **Veganism:** Veganism is a way of living that attempts to exclude all forms of animal exploitation and replace it with plant-based products.
- In developed countries, the vegan movement is gaining momentum due to ecological and health benefits of plant-based food including milk.
- PETA is promoting vegan alternatives to replace animal-based foods.
- **Criticism of Veganism:** Amul and its supporters argue that PETA’s moves may be a ploy for multinational companies to promote synthetic milk and genetically modified seeds through a misinformation campaign.
- They have raised questions about the suitability of chemical-laden, lab-produced plant-based milk for human consumption.
- Further, FSSAI notified that the word ‘milk’ cannot be used for plant-based dairy alternatives.

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**Pangolin**

*Why in News*  
Recently, a pangolin was rescued by a team from Noida and handed over to the forest department.

**Key Points**

- **About:**
  - The pangolin, also called *scaly anteater*, is an elongated, *armour-plated insectivore mammal*.
  - It uses these *scales* as armour to defend itself against predators by rolling into a ball when threatened.
  - Also, a pangolin’s *long claws* help it to dig the ground for termites, which is its staple food.

- **Species of Pangolin:**
  - Seven species of pangolin are found across the world, of which, **two are found in India**, namely *Indian pangolin* (*Manis crassicaudata*) and *Chinese pangolin* (*Manis pentadactyla*)
  - The Indian Pangolin is found throughout the country *south of the Himalayas, excluding the north-eastern region* while the Chinese Pangolin ranges through *Assam and the eastern Himalayas*.

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*The Chinese pangolin is distinguished from other Asian pangolins by its almost helmeted appearance, smaller scales than the Indian pangolin.*

- **Habitat:**
  - It is adaptable to a wide range of habitats including primary and secondary tropical forests, limestone and bamboo forests, grasslands and agricultural fields.

- **Threats:**
  - Once known to be found in large numbers, its population is rapidly declining in its range due to habitat loss and rampant poaching for its skin, scales, and meat.
  - It is *a highly trafficked mammal*; due to their huge demand for medicinal purposes, pangolins are smuggled through roads and rails and sent to China.

- **Protection Status:**
  - As per *International Union for Conservation of Nature (IUCN)*, the pangolin is part of the “red list”.
    - While the *Indian pangolin is listed as “endangered”* and the *Chinese pangolin has been listed as “critically endangered”*.
  - All pangolin species are *listed in Convention on International Trade in Endangered Species (CITES) Appendix I*.
  - In India, pangolins, both Indian and Chinese, are *protected under Schedule 1 of the Wildlife (Protection) Act 1972*.
    - Therefore, hunting, trade or any other form of utilisation of the species or their body parts and derivatives is banned.
    - In India, hunting and poaching can invite prison time up to 7 years since it involves maximum protection under the section of the Wildlife Act.
### Swinhoe’s Softshell Turtle

**Why in News**

In recent years, a lot of efforts have been put by the conservationists to save the world’s most endangered turtle, Swinhoe’s softshell turtle from the brink of extinction.

- The animal is also known as the Hoan Kiem turtle or Yangtze giant softshell turtle.
- In Vietnam, these animals have great cultural significance as people in Hanoi revere this creature as a living god.

**Key Points**

- **Scientific Name:** Rafetus swinhoei
  - These turtles are gray with light gray or yellow spots.
- **Significance:**
  - Some researchers have highlighted their importance to the seafloor biosystem, where they contribute by enriching soil nutrients and facilitating seed dispersion.
- **Habitat:**
  - The natural habitat for these turtles are wetlands and large lakes.
  - Native to China and Vietnam.
- **Protection Status:**
  - IUCN Red List: Critically endangered
  - CITES: Appendix II
- **Threats:**
  - They have been driven to the brink by hunting for its meat and eggs, as well as by destruction of its habitat.

### Plastic-Mixed Handmade Paper

**Why in News**

Recently, Khadi and Village Industries Commission (KVIC) has secured Patent registration for its innovative Plastic-mixed Handmade Paper developed to reduce plastic menace from nature.

**Key Points**

- The plastic-mixed handmade paper (which is recyclable and eco-friendly) was developed under Project REPLAN (Reducing PLastic from Nature).
  - The project was launched in September 2018 as part of KVIC’s commitment to Swachh Bharat Abhiyan.
  - It aims to make carry bags by mixing processed and treated plastic waste with cotton fibre rags in the ratio 20:80.
  - This is the first of its kind project in India, where plastic waste is de-structured, degraded, diluted and used with paper pulp while making handmade paper and thus reduces plastic waste from nature.
  - The invention is aligned with the Prime Minister’s call for fighting the menace of single-use plastic.
  - The production of waste-plastic mixed handmade paper is likely to serve the twin objectives:
    - Protecting the environment
    - Creating sustainable employment
- The technology developed by KVIC uses both high & low density waste polythene that not only adds extra strength to the paper but also reduces the cost by up to 34%.
- KVIC has developed products such as carry bags, envelopes, files/folders, etc. using plastic mixed handmade paper.

**Patent**

- A Patent is a statutory right for an invention granted for a limited period of time to the patentee by the Government, in exchange of full disclosure of his invention for excluding others, from making, using, selling, importing the patented product or process for producing that product for those purposes without his consent.
The term of every patent granted is **20 years from the date of filing of application.**

The patent system in India is governed by the **Patents Act, 1970** as amended by the Patents (Amendment) Act, 2005 and the Patents Rules, 2003.

The Patent Rules are regularly amended in consonance with the changing environment, **most recent being in 2016.**

**Patent protection is a territorial right** and therefore it is effective only within the territory of India.
- There is no concept of global patent.
- Patents should be obtained in each country where the applicant requires protection of his invention.

Khadi and Village Industries Commission (KVIC)
- KVIC is a statutory body established under the Khadi and Village Industries Commission Act, 1956.
- The KVIC is charged with the planning, promotion, organisation and implementation of programmes for the development of Khadi and other village industries in the rural areas in coordination with other agencies engaged in rural development wherever necessary.
- It functions under the **Ministry of Micro, Small and Medium Enterprises.**

Major initiatives Associated with KVIC:
- **Honey Mission’ initiative**
- **Project BOLD**
- **Leather Mission**
- **Gramodyog Vikas Yojana**
- **Kumhar Sashaktikaran Yojana (KSY)**

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**Greater Adjutant Storks (Garuda)**

**Why in News**

Recently, Bihar has decided to tag greater adjutant storks locally known as ‘Garuda’ with GPS trackers to monitor their movement as part of efforts to conserve them.

**Key Points**
- **Scientific Name:** *Leptoptilos dubius*

**Genus:**
- The greater adjutant is a member of the **stork family, Ciconiidae.**
  - There are about **20 species in the family.**
  - They are long-necked large birds.

**Habitat:**
- Once found across South and Southeast Asia, the Greater Adjutant is one of the **most threatened stork species in the world.**
- There are only three known breeding grounds – one in Cambodia and two in **India (Assam and Bihar).**

**Threat:**
- The widespread destruction and degradation of the **wetlands** that this scavenger bird needs to forage (i.e. search for food) and the **loss of its nesting trees**, led to a decline.

**Protection Status:**
- **IUCN Red List:** Endangered
- **Wildlife (Protection) Act 1972:** Schedule IV

**Significance:**
- **Religious Icon:**
  - They are considered the mount of Vishnu, one of Hinduism’s prime deities.
  - Some worship the bird and call it “Garuda Maharaj” (Lord Garuda) or “Guru Garuda” (Great Teacher Garuda).
- **Helpful for Farmers:**
  - They help farmers by killing rats and other farm pests.

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**India Needs an Updated Flood Map**

**Why in News**

Recent occurrences of heavy rainfall leading to flooding across India have shown that **flood-prone areas**...
in the country go beyond those mentioned in the central monitoring map.

- The shift in the flooding patterns and frequencies demands an updated map of flood-prone areas, factoring in the impacts of climate change.

**Flood Prone Areas According to NDMA**

- **Key Points**

  - **Flood Prone Areas in India:**
    - Regions susceptible to floods, according to the National Disaster Management Authority (NDMA), lie mostly along the Ganga-Brahmaputra river basin, from the northern states of Himachal Pradesh and Punjab, covering Uttar Pradesh and Bihar and stretching to Assam and Arunachal Pradesh in the northeast.
    - The coastal states of Odisha and Andhra Pradesh, parts of Telangana and Gujarat also witness yearly floods.

  - **Need of a New Map:**
    - **Old Estimation:**
      - The current demarcation is based on estimates made in 1980 by Rashtriya Barh Ayog (RBA) or National Flood Commission formed four decades ago.
      - National Flood Commission, was set up by the Ministry of Agriculture and Irrigation in 1976, to study India’s flood-control measures after the projects launched under the National Flood Control Programme of 1954 failed to achieve much success.

  - **Flood**
    - It is an overflowing of water onto land that is normally dry. Floods can happen during heavy rains, when ocean waves come on shore, when snow melts quickly, or when dams or levees break.
    - Damaging flooding may happen with only a few inches of water, or it may cover a house to the rooftop. Floods can occur within minutes or over a long period, and may last days, weeks, or longer. Floods are the most common and widespread of all weather-related natural disasters.
    - **Flash floods** are the most dangerous kind of floods, because they combine the destructive power of a flood with incredible speed.
      - Flash floods occur when heavy rainfall exceeds the ability of the ground to absorb it.
      - They also occur when water fills normally dry creeks or streams or enough water accumulates for streams to overtop their banks, causing rapid rises of water in a short amount of time.
      - They can happen within minutes of the causative rainfall, limiting the time available to warn and protect the public.

- **National Disaster Management Authority**

  - **About:**
    - It is the apex statutory body for disaster management in India. It was formally constituted in September 2006, in accordance with the Disaster Management Act, 2005 with the Prime Minister as its Chairperson and nine other members, and one such member to be designated as Vice-Chairperson.

  - **Mandate:**
    - To coordinate response to natural or man-made disasters and for capacity-building in disaster resiliency and crisis response.
    - It is also the apex body to lay down policies, plans and guidelines for Disaster Management to ensure timely and effective response to disasters.
Vision:
- To build a safer and disaster resilient India by a holistic, proactive, technology driven and sustainable development strategy that involves all stakeholders and fosters a culture of prevention, preparedness and mitigation.

- Around 40 million hectares of the geographical area in India is vulnerable to floods, according to the RBA.
- RBA also ascribed the floods to purely anthropogenic factors and not heavy downpours.

Climate Change:
- Over the last four decades, India has been reeling from the effects of climate change. The global rise in temperatures has led to large periods of no rain followed by extreme precipitation.
- Extreme rainfall events have tripled in central India between 1950 and 2015, according to the science journal Nature.
  - There will be a rise in the frequency of floods in India due to rising temperatures between 2070 and 2100, according to Climate Change and India, a report by the Union Ministry of Environment and Forest.

- Increased Downpour:
  - In recent times, the southwest monsoon period has also been causing massing floods in parts of the country in recent years.
  - In 2020, 256 districts across 13 states in India reported floods due to excess rainfall.
Rana Punja Bhil

Why in News

Recently, a dispute has erupted in Rajasthan over the hoisting of a flag on the statue of Rana Punja Bhil, a historical figure considered as a hero by the tribal Bhil community.

- After the Amagarh fort dispute, this is the second issue in Rajasthan within a month.

Key Points

- About Rana Punja Bhil:
  - He was a contemporary of 16th century ruler of Mewar, Maharana Pratap.
  - He is considered to be a significant character who bolstered the strength of Pratap during his battles with Mughal emperor Akbar.
  - When Maharana Pratap was readying for the battle with Akbar, the tribal Bhil community voluntarily came to his assistance and at the time the Bhil army was commanded by Punja.
  - Owing to his status as a commander, he was bestowed the title of Rana.

- Bhil community:
  - About:
    - The Bhil are one of the largest tribal groups, living in Chhattisgarh, Gujarat, Karnataka, Madhya Pradesh, Maharashtra, Andhra Pradesh and Rajasthan.
    - They are the biggest tribe in Rajasthan.
    - They are classified as scheduled tribes in Rajasthan.
    - The name is derived from the word ‘billu’, which means bow.
    - Bhil women wear traditional saris while men are dressed in long frocks and pyjamas. The woman put on heavy ornaments made of silver, brass along with rosaries of beads and silver coins and earrings.
  - Importance of the Community:

Other Tribes in Rajasthan

- Sahariyas:
  - Sahariyas are one of the most backward Rajasthani tribes.

- Minas:
  - Minas is the second biggest tribe in Rajasthan.
  - They are known to be the inhabitants of Indus Valley Civilization.

- Gadiya Lohars:
  - Gadiya Lohars are known to be a small Rajput Rajasthan tribe.

- Garasias:
  - Garasias are another small Rajput Rajasthan tribe.

- Others:
  - There are other Rajasthan tribes also, which include Kathodi (found in Mewar region), Sansi and Kanjar.
The Bhil are known to be excellent archers coupled with deep knowledge about their local geography.

Traditionally, experts in guerrilla warfare, most of them today are farmers and agricultural labourers. They are also skilled sculptors.

They have exercised significant influence in the Mewar region and throughout the past, the Rajput rulers of the region have forged alliances with the tribal group.

Quit India Movement

Why in News

On 8th Aug 2021, India completed 79 years of Quit India Movement also known as August Kranti.

Key Points

- **About:**
  - On 8th August 1942, Mahatma Gandhi gave a clarion call to end the British rule and launched the Quit India Movement at the session of the All-India Congress Committee in Mumbai.
  - Gandhiji gave the call “Do or Die” in his speech delivered at the Gowalia Tank Maidan, now popularly known as August Kranti Maidan.
  - Aruna Asaf Ali popularly known as the ‘Grand Old Lady’ of the Independence Movement is known for hoisting the Indian flag at the Gowalia Tank Maidan in Mumbai during the Quit India Movement.
  - The slogan ‘Quit India’ was coined by Yusuf Meherally, a socialist and trade unionist who also served as Mayor of Mumbai.
  - Meherally had also coined the slogan “Simon Go Back”.

- **Causes:**
  - **Failure of Cripps Mission:** The immediate cause for the movement was the collapse of Cripps Mission.
  - **About:** Under Stafford Cripps, the mission was sent to resolve the Indian question of a new constitution and self-government.
  - **Reasons Behind Cripps Mission:** Japanese aggression in South-East Asia, keenness of British Government to secure the full participation of India in the war, mounting pressure from China and the United States, as well as from the Labour Party in Britain, led British Prime Minister Winston Churchill to send the Cripps Mission to India in March 1942.
  - **Reasons for Collapse:** It failed because it offered India not complete freedom but the Dominion Status to India, along with the partition.
  - **Involvement of India in World War II without prior consultation with the leaders:**
  - The British assumption of unconditional support from India to British in World War II was not taken well by the Indian National Congress.
  - **Prevalence of anti-British Sentiment:**
  - The anti-British sentiments and demand for full-independence had gained popularity among Indian masses.
  - **Centralisation of Many Small Movements:**
  - The two decades of mass movement which were being conducted on a much more radical tone under the leadership of the various associated and affiliated bodies of the Congress, like All India Kisan Sabha, Forward Bloc etc. had already prepared the ground for the movement.
  - There were militant outbursts happening at several places in the country which got channelized with the Quit India Movement.
  - **Shortage of Essential Commodities:**
  - The economy was also in shatters as a result of World War II.

- **Demands:**
  - The demand was to end the British rule in India with immediate effect to get the cooperation of Indians in World War II against fascism.
  - There was a demand to form a provisional government after the withdrawal of the Britishers.

- **Phases:** The movement had three phases:
  - **First Phase, urban revolt,** marked by strikes, boycott and picketing, which were quickly suppressed.
  - There were strikes and demonstrations all over the country and workers provided the support by not working in the factories.
  - Gandhiji was soon imprisoned at Aga Khan Palace in Pune and almost all leaders were arrested.
  - **In the second phase,** the focus shifted to the countryside, which witnessed a major peasant rebellion, marked by destruction of communication systems, such as railway tracks and stations,
telegraph wires and poles, attacks on government buildings or any other visible symbol of colonial authority.

- The last phase witnessed the formation of national governments or parallel governments in isolated pockets (Ballia, Tamluk, Satara etc.)

**Successes of the Movement**

- **Rise of Future Leaders:**
  - Underground activities were taken by leaders that included Ram Manohar Lohia, J.P. Narayan, Aruna Asaf Ali, Biju Patnaik, Sucheta Kriplani, etc which later emerged as prominent leaders.

- **Women Participation:**
  - Women took active participation in the movement. Female leaders like Usha Mehta helped set up an underground radio station which led to the awakening about the movement.

- **Rise of Nationalism:**
  - A greater sense of unity and brotherhood emerged due to the Quit India Movement. Many students dropped out of schools and colleges, people gave up their jobs and withdrew money from the banks.

- **Paved the way for Independence:**
  - While the Quit India campaign was crushed in 1944, with the British refusing to grant immediate independence, saying it could happen only after the war had ended, they came to the important realization that India was ungovernable in the long run due to the cost of World War II.
  - It changed the nature of political negotiations with British, ultimately paving the way for India’s independence.

**Failure of the Movement**

- **Brutal Repression:**
  - The movement saw violence at some places which was not premeditated.
  - The movement was violently suppressed by the British – people were shot, lathi-charged, villages burnt and enormous fines imposed.
  - Over 1,00,000 people were arrested and the government resorted to violence in order to crush the agitation.

- **Lack of Support:**
  - Muslim League, the Communist Party of India and the Hindu Mahasabha did not support the movement. The Indian bureaucracy also did not support the movement.
    - The League was not in favour of the British leaving India without partitioning the country first.
    - The Communist party supported the British since they were allied with the Soviet Union.
    - The Hindu Mahasabha openly opposed the call for the Quit India Movement and boycotted it officially under the apprehension that the movement would create internal disorder and would endanger internal security during the war.
  - Meanwhile, Subhas Chandra Bose, organised the Indian National Army and the Azad Hind government from outside the country.
  - Many Congress members like C Rajagopalachari resigned from the provincial legislature as they did not favour Mahatma Gandhi’s idea.

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**Abanindranath Tagore**

**Why in News**

The year-long celebrations marking 150 years of Abanindranath Tagore will be started soon, with a host of online workshops and talks paying tributes to the leading light of the Bengal School of Art.

**Key Points**

- **About:**
  - **Birth:** Abanindranath Tagore took birth in a family of Tagores of Jorasanko in Kolkata in 1871.
  - He was a nephew of Rabindranath Tagore.

- **Abanindranath’s Ideology:** In his youth, Abanindranath received training in European and Academic style from European artists.
  - However, during the last decade of the 19th century, he developed a...
distaste for European naturalism (which represented things closer to the way one sees them - inspired by the principles of natural science).

- He leaned towards painting images with historic or literary allusions. He drew inspiration from Mughal miniatures.
- Another source of inspiration came from the visit of the Japanese philosopher and aesthetician Okakura Kakuzo to Kolkata in 1902.

**Contribution to Indian Freedom Struggle:**
- In the last decades of the nineteenth century, a new art movement emerged which received its primary stimulus from the growing nationalism in India.
- In Bengal, a new group of nationalist artists gathered around Abanindranath Tagore.
- He was arguably the first major exponent of an artistic idiom that sought to modernise the Mughal and the Rajput styles in order to counter the influence of Western models of art under the colonial regime.
- Though many of the paintings of this new trend primarily focused on themes of Indian mythology and cultural heritage, they are important sources for studying the modern art movement in India and for the art historians.
  - His unique interpretation of swadeshi themes created a new awakening and heralded a revival of Indian art.
  - He was the creator of the iconic ‘Bharat Mata' painting.
  - Victoria Memorial Hall is the custodian of the Rabindra Bharati Society collection, the single-largest collection of works by the artist.

**Bengal School of Painting**
- It is also called the Renaissance School or the Revivalist School, as it represented the first modern movement of Indian art.
- It rediscovered the glories of Indian art and consciously tried to produce what it considered a truly Indian art inspired by the creations of the past.
- Its leading artist was Abanindranath Tagore and its theoretician was E.B. Havell, the principal of the Calcutta School of Art.
Retreat of Glaciers in Ladakh

Why in News
According to a recent study by the Wadia Institute of Himalayan Geology (WIHG), the Pensilungpa Glacier located in Ladakh’s Zanskar Valley is retreating due to increase in temperature and decrease in precipitation during winters.

- This study assesses the impact of climate change on glaciers. Earlier, the UNDP (United Nations Development Programme) also assessed that the Hindu Kush Himalayan (HKH) mountain ranges could lose up to two-third of its ice by 2100.
- WIHG is an autonomous body under the Department of Science and Technology located in Dehradun, Uttarakhand.

Key Points
- Findings:
  - Rate of Decline:
    - The glacier is now retreating at an average rate of 6.7 plus/minus 3 metre per annum.
    - Glaciers may retreat when their ice melts more quickly than snowfall can accumulate and form new glacial ice.
  - Debris Cover:
    - There is a significant influence of debris cover on the mass balance and retreat of the glacier’s endpoint, especially in summer.
    - Furthermore, the mass balance data for the three years (2016–2019) showed a negative trend with a small accumulation area ratio.
    - Mass balance of the glacier is the difference between the snow accumulated in the winter and the snow and ice melted over the summer.
  - Impact of rise in the Air Temperature:
- Impact:
  - Impact on Human Life:
    - It will impact the water, food, energy security and agriculture, including soil loss due to soil erosion, landslides and floods.
    - Glacial lakes may also form due to the accumulation of melted ice, which may result in Glacial Lake Outburst Floods (GLOF) and even shifting global climate by dumping freshwater into the oceans and so altering their circulation.
  - Leaves Debris:
    - Glacial retreat leaves boulders and masses of scraped-together rocky debris and soil called glacial moraines.
- Initiative for Himalayan Ecosystem:
  - National Mission for Sustaining the Himalayan Ecosystem: It is one of the 8 national missions under the National Action Plan on Climate Change (NAPCC).

Glacier
- About:
  - It is a large, perennial accumulation of crystalline ice, snow, rock, sediment, and water that originates on land and moves down slope under the influence of its own weight and gravity. They are sensitive indicators of changing climate.
  - Out of total water on Earth, 2.1% is in glaciers while 97.2% is in the oceans and inland seas.

- Condition of glacier formation:
  - Mean annual temperatures are close to the freezing point.
Winter precipitation produces significant accumulations of snow.

Temperatures throughout the rest of the year do not result in the complete loss of the previous winter’s snow accumulation.

Glacial Landforms:

Zanskar Valley

- It is a semi-arid region situated in the northern flank of the Great Himalayas at an altitude of more than 13 thousand feet.
- The Zanskar Range separates Zanskar from Ladakh and the average height of the Zanskar Range is about 6,000 m.
- This mountain range acts as a climatic barrier protecting Ladakh and Zanskar from most of the monsoon, resulting in a pleasantly warm and dry climate in the summer.
- Marbal Pass, Zojila Pass in the extreme northwest of Zanskar range are two notable passes in the region.
- Many rivers start in different branches of this range flow northward, and join the great Indus River. These rivers include Hanle River, Khurna River, Zanskar River, Suru River (Indus), and Shingo River.
- The Zanskar river then takes a north-eastern course until it joins the Indus in Ladakh.

Report on Water Resource Management

Why in News

Recently, a report was tabled in Rajya Sabha by the Standing Committee on Water Resources.

- The report is titled “Flood Management in the Country including International Water Treaties in the field of Water Resource Management with particular reference to Treaty/Agreement entered into with China, Pakistan and Bhutan”.
- The Government of India should renegotiate the Indus Water Treaty of 1960 with Pakistan in the light of present-day challenges such as climate change and constantly monitor ‘Chinese actions’ over Brahmaputra.

Key Points

- On Flood Management:
  - The committee recommended setting up of a permanent institutional structure in the form of National Integrated Flood Management Group under the chairmanship of the Minister of Jal Shakti “immediately” for control and management of floods in the country.
  - This group should take up the overall responsibility of coordination as well as building synergies between all agencies responsible for management of floods and their consequences on life and property.

- On Indus Water Treaty:
  - Highlighted Impacts of Climate Change:
    - Rainfall Pattern: There are instances of more high-intensity rainfall as well as long stretches where there is low rainfall.
    - Glacial Melt: The contribution of glaciers in the Indus basin is higher than in the Ganges or Brahmaputra basins.
    - Disasters: Because there is a fragile Himalayan region involved, there is greater frequency of landslides and flash floods.
  - Utilisation of the Waters of the Indus:
    - India was able to make full use of the ‘Eastern Rivers’, namely the Ravi, Beas and Satluj through a series of dams such as Ranjit Sagar on the
Ravi in Pathankot, Pong on the Beas and Bhakra Nangal on the Satluj.

- However, canals in Punjab and Rajasthan such as the Rajasthan Feeder and the Sirhind Feeder had become old and were not maintained properly. This had resulted in the lowering of their water carrying capacity.
- Thus, the water from the Harike Barrage on the confluence of the Beas and Satluj in Punjab was usually released downstream into Pakistan.
- It urged the Centre to expedite new projects like the one on the Ujh, a tributary of the Ravi, as well as the Shahpurkandi on the Ravi itself to exploit the full potential of the rivers for irrigation and other purposes.
- It also recommended that the canal systems in Punjab and Rajasthan be repaired to increase their water carrying capacity.

Renegotiation of Indus Water Treaty:
- Present day pressing issues such as climate change, global warming and environmental impact assessment etc. were not taken into account by the Treaty signed in 1960.
- There is a need to re-negotiate the Treaty so as to establish some kind of institutional structure or legislative framework to address the impact of climate change on water availability in the Indus basin and other challenges which are not covered under the Treaty.

On China’s Development on Brahmaputra:
- Committee expressed apprehension that though ‘run of the river’ projects undertaken by China per

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Note:
World Tribal Day, 2021

World Tribal Day or International Day of the World’s Indigenous Peoples is observed on 9th August every year.

- It is aimed at promoting and protecting the rights of the world’s indigenous population and to acknowledge the contributions that indigenous people make towards world issues such as environmental protection.

Key Points

- Background:
  - It has been celebrated every year since 1994, in accordance with the declaration by the United Nations.
  - To date, numerous indigenous peoples experience extreme poverty, marginalization, and other human rights violations.

- Theme 2021:
  - “Leaving no one behind: Indigenous peoples and the call for a new social contract.”

- Indigenous Peoples:
  - Indigenous peoples are inheritors and practitioners of unique cultures and ways of relating to people and the environment. They have retained social, cultural, economic and political characteristics that are distinct from those of the dominant societies in which they live.

Significance:

- Protecting Critical Ecosystem:
  - Around 80% of the world’s biodiversity is inhabited and protected by indigenous populations.
  - Their innate, diverse knowledge about lands, nature, and its development are extremely crucial to ensure the protection of the critical ecosystem, natural resources.

- Preserving Languages:
  - With 370-500 million indigenous peoples representing the majority of the world’s cultural diversity, they speak the greater share of almost 7000 languages in the world.

- Contributing to Zero Hunger Goal:
  - The crops grown by indigenous people are highly adaptable. They can survive drought, altitude, flooding, and any kind of extremes of temperature. As a result, these crops help create resilient farms.
  - Also, quinoa, moringa, and oca are some of the native crops that have the ability to expand and diversify our food base. These would contribute to the goal to attain Zero Hunger.

Other Global Efforts:

- Decade of Indigenous Languages (2022-2032):
  - It aims to conserve Indigenous languages, which helps preserve their cultures, world views and visions, as well as expressions of self-determination.
United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP): It establishes a universal framework of minimum standards for the survival, dignity and well-being of the indigenous peoples of the world.

Permanent UN Forum on Indigenous Issues: It was established with the mandate to deal with indigenous issues related to economic and social development, culture, the environment, education, health and human rights. It is an advisory body to the UN Economic and Social Council.

Tribes in India

- Data Analysis:
  - India hosts around 104 million (that is almost 8.6% of the country’s population).
  - Though there are 705 ethnic groups that have been formally identified, out of which around 75 are Particularly Vulnerable Tribal Groups (PVTGs).
  - The Gond comprise the largest tribal group of India.
  - The largest number of tribal communities (62) are found in Odisha.
  - The central tribal belt which comprises the Northeastern states of India (including the region ranging from Rajasthan to West Bengal) boasts of the maximum concentration of indigenous population.

- Major Constitutional Provisions:
  - Article 342 (1) - The President may with respect to any State or Union Territory, and where it is a State, after consultation with the Governor, by a public notification, specify the tribes or tribal communities or part of or groups within tribes or tribal communities as Scheduled Tribe in relation to that State or Union Territory.
  - Article 15 - Prohibition of discrimination on grounds of religion, race, caste, sex or place of birth only.
  - Article 46 - Promotion of educational and economic interests of scheduled castes, Scheduled tribes and other weaker sections.
  - Article 335 - Claims of Scheduled Castes and Scheduled Tribes to services and posts.

- As per Article 338-A of the Constitution of India, the National Commission for Scheduled Tribes has been set-up.

- 5th and 6th Schedule - Administration and control of Scheduled and Tribal Areas.

- Legal Provisions:
  - Protection of Civil Rights Act, 1955 against Untouchability.
  - Scheduled Castes and the Scheduled Tribes (Prevention of Atrocities) Act, 1989 to prevent the commission of offences of atrocities against the members of the SC and ST.
  - Provisions of the Panchayats (Extension to the Scheduled Areas) Act, 1996 to provide for the extension of the provisions of Part IX of the Constitution relating to the Panchayats to the Scheduled Areas.

- Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 to recognize and vest the forest rights and occupation in forest land in forest dwelling scheduled tribes and other traditional forest dwellers.

- Initiatives:
  - TRIFED is a national-level apex organization functioning under the administrative control of the Ministry of Tribal Affairs. It is involved in schemes such as MSP for MFP and TRIFOOD.
  - Pradhan Mantri Van Dhan Yojana: A market-linked tribal entrepreneurship development program for forming clusters of tribal Self Help Groups (SHGs) and strengthening them into Tribal Producer Companies.
  - Capacity Building Initiative: Empowering tribal Panchayati Raj Institution (PRI).
  - 1000 Springs Initiative & Online portal on GIS-based Spring Atlas: Harnessing Springs, which are natural resources of groundwater discharge.
  - Digital Transformation of Tribal Schools: In the first phase, 250 Eklavya Model Residential Schools (EMRS) have been adopted by Microsoft, out of which 50 EMRS schools will be given intensive training and 500 master trainers would be trained.

- Committees Related to Tribal Communities:
  - Xaxa Committee (2013)
  - Lokur Committee (1965)
International Youth Day, 2021

Why in News

Every year, International Youth Day is observed on 12th August to recognise and bring attention to the problems faced by the youth.

- National Youth Day is held every year on 12th January to observe the birth anniversary of Swami Vivekananda.

Key Points

- History:
  - In 1999, the United Nations decided to commemorate International Youth Day every year on this day.
  - It was based on a recommendation made by the World Conference of Ministers Responsible for Youth in Lisbon to the UN General Assembly.
  - The first International Youth Day was observed on 12th August, 2000.

- Theme for 2021:

- Challenges in Realising Youth Potential:
  - Lack of Education and Skill: India’s underfunded education system is inadequately equipped to provide the skills young people need to take advantage of emerging employment opportunities.
    - According to the World Bank, public expenditure on education constituted only 3.4% of GDP in 2020.
  - Impact of the Pandemic: Various studies show that school closures have a serious impact on the learning, lives and mental well-being of children.
    - A survey by the International Labour Organization (ILO) reveals that 65% of adolescents worldwide reported having learnt less during the pandemic.
  - Issues of Young Women: Child marriage, gender-based violence, their vulnerability to abuse and trafficking, especially if primary caregivers fall ill or die. All these issues restrict young women to achieve their full potential.
  - Jobless Growth: The main contributor in India’s GDP is the service sector which is not labour intensive and thus adds to jobless growth.

- Further about 50% of India’s population is still dependent on agriculture which is notorious for underemployment and disguised unemployment.

- Low Social Capital: Further high levels of hunger, malnutrition, stunting among children, high levels of anaemia among adolescent girls, poor sanitation etc., have reduced the productivity of India’s youth in realising their potential.

- India’s Initiatives:
  - National Youth Policy-2014 provides a holistic Vision for the youth of India which is “to empower the youth of the country to achieve their full potential, and through them enable India to find its rightful place in the community of nations”.
  - For Employment:
    - Generation Unlimited in India (YuWaah)
    - National Career Service
    - Prime Minister’s Employment Generation Programme (PMEGP)
    - Pradhan Mantri Mudra Yojana (PMMY)
    - Pradhan Mantri Rojgar Protsahan Yojana (PMRPY)
    - Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGA)
  - For Skill Development:
    - Pradhan Mantri Kaushal Vikas Yojana
    - YUVA: Prime Minister’s Scheme For Mentoring Young Authors
  - For Social Issues:
    - Protection of Women from Domestic Violence Act, 2005
    - Special Marriage Act, 1954
    - Prohibition of Child Marriage Act, 2006
  - For Health and Nutrition:
    - Integrated Child Development Services (ICDS) Scheme
    - National Health Mission (NHM)
  - Global Initiatives:
    - World Programme of Action for Youth
    - Global Youth Summit
    - Global youth skills day
Global Youth Tobacco Survey- 4

Why in News

Recently, the fourth round of Global Youth Tobacco Survey (GYTS-4) was released by the Ministry of Health and Family Welfare (MoHFW).

Key Points

About:
- GYTS-4 was conducted in 2019 by the International Institute for Population Sciences (IIPS) under the MoHFW.
- IIPS, Mumbai, formerly known as the Demographic Training and Research Centre (DTRC) till 1970, was established in July 1956 under the joint sponsorship of Sir Dorabji Tata Trust, the Government of India and the United Nations.
- It serves as a regional centre for Training and Research in Population Studies for the Economic and Social Commission for Asia and the Pacific (ESCAP) region.
- The survey was designed to produce national estimates of tobacco use among school going children aged 13-15 years at the state level and Union Territory (UT) by sex, location of school (rural-urban), and management of school (public-private).
- The first three rounds of GYTS were conducted in 2003, 2006 and 2009.
- A total of 97,302 students from 987 schools participated in the survey.

Objective of the Survey:
- To provide information on tobacco use, cessation, second-hand smoke, access and availability, exposure to anti-tobacco information, awareness and receptivity to tobacco marketing, knowledge, and attitudes.

Major Findings:
- Decline in Tobacco Use:
  - There has been a 42% decline in tobacco use among 13-15 year-old school going children in the last decade.
- Nearly one-fifth of the students aged 13-15 used any form of the tobacco product (smoking, smokeless, and any other form) in their life.

Gender Based Usage:
- Use of any form of tobacco was higher among boys. Prevalence of tobacco use among boys was 9.6% and among girls was 7.4%.

State Wise Data:
- Tobacco use among school going children was highest in Arunachal Pradesh and Mizoram and lowest in Himachal Pradesh and Karnataka.

Initiation Age:
- 38% of cigarettes, 47% of bidi smokers and 52% of smokeless tobacco users initiated the use before their tenth birthday.
- The median age of initiation to cigarette and bidi-smoking, and smokeless tobacco use were 11.5 years, 10.5 years and 9.9 years respectively.

Awareness:
- 52% of students noticed anti-tobacco messages in the mass media and 18% of students noticed tobacco advertisements or promotions when visiting points of sale.
- 85% of school heads were aware of the Cigarettes and Other Tobacco Products Act (COTPA), 2003 and 83% of schools were aware of the policy to display ‘tobacco-free school’ boards.

Measures towards Tobacco Control in India:
- Adoption of WHO FCTC:
  - India adopted the tobacco control provisions under World Health Organisation (WHO) Framework Convention on Tobacco Control (WHO FCTC).
- COTPA, 2003:
  - It replaced the Cigarettes Act of 1975 (largely limited to statutory warnings- ‘Cigarette Smoking is Injurious to Health’ to be displayed on cigarette packs and advertisements. It did not include non-cigarettes).
  - The 2003 Act also included cigars, bidis, cheroots, pipe tobacco, hookah, chewing tobacco, pan masala, and gutka.
- Promulgation of the Prohibition of Electronic Cigarettes Ordinance, 2019:
- National Tobacco Quitline Services (NTQLS):
  - Tobacco Quitline Services have the potential to reach a large number of tobacco users with the sole objective to provide telephone-based information, advice, support, and referrals for tobacco cessation.
- mCessation Programme:
  - It is an initiative using mobile technology for tobacco cessation.
  - India launched mCessation using text messages in 2016 as part of the government’s Digital India initiative.

.Global Initiatives:
- World No Tobacco Day - 31st May.
- WHO Framework Convention on Tobacco Control: Governments adopt and implement the tobacco control provisions of the WHO Framework Convention on Tobacco Control (WHO FCTC).

Quality of Life for Elderly Index

Why in News
Recently, the Economic Advisory Council to the Prime Minister (EAC-PM) released the Quality of Life for Elderly Index.

The share of elders, as a percentage of the total population in the country, is expected to increase from around 7.5% in 2001 to almost 12.5% by 2026, and surpass 19.5% by 2050.

EAC-PM is a non-constitutional, non-statutory independent body constituted to give advice on economic and related issues to the Government of India, specifically to the Prime Minister.

Key Points
About:
- The Index has been created by the Institute for Competitiveness at the request of EAC-PM and it sheds light on an issue often not mentioned—problems faced by the elderly.

Institute for Competitiveness, India is an international initiative centered in India, dedicated to enlarging and purposeful disseminating of the body of research and knowledge on competition and strategy.

It identifies the regional patterns of ageing across Indian States and assesses the overall ageing situation in India.
- Ageing is a continuous, irreversible, universal process, which starts from conception till the death of an individual.
- However, the age at which one’s productive contribution declines and one tends to be economically dependent can probably be treated as the onset of the aged stage of life.
- National Elderly Policy defines people in the 60+ age group as elderly.

It will promote healthy competition among States through fair rankings and highlights the pillars and indicators they can improve.

Pillars & Sub-Pillars of the Index:
- Four Pillars:
  - Financial Well-being, Social Well-being, Health System and Income Security
- Eight Sub-Pillars:

Major Findings:
- State-wise Rankings:
  - Rajasthan and Himachal Pradesh are top-scoring regions in Aged and Relatively Aged States, respectively.
    - The Aged States refer to States with an elderly population of more than 5 million, whereas Relatively Aged States refer to States with an Elderly population of less than 5 million.
  - Chandigarh and Mizoram are top-scoring regions in Union Territory and North-East States category.

- Pillar-wise Performance:
  - The Health System pillar observes the highest national average, 66.97 at an all-India level, followed by 62.34 in Social Well-being.
Financial Well-being observes a score of 44.7, which is lowered by the low performance of 21 States across the Education Attainment & Employment pillar, which showcases scope for improvement.

States have performed particularly worse in the Income Security pillar because over half of the States have a score below the national average in Income Security, which is the lowest across all pillars.

**Challenges:**
- **Feminization of Ageing:**
  - One of the emerging issues of population ageing is the “Feminization of Ageing”, that is many more women than men reaching older ages.
- **Income security:**
  - India has one of the weakest social security mechanisms globally as it only spends 1% of its Gross Domestic Product (GDP) on pensions.
- **Integration of elderly in Economy:**
  - There is a need to cater to the present older person’s unique needs, motivations, and preferences, and to give them a chance to contribute to society until they promote active ageing.
- **Health care and services:**
  - Good health lies at the core of society to ensure healthy ageing. As the life expectancy of older people increases in India, we need to ensure that people, while living longer, live healthier lives, which will translate into more significant opportunities and lower costs to older persons, their families and society.

**Related Initiatives:**
- **SAGE (Seniorcare Aging Growth Engine):** It is a “one-stop access” of elderly care products and services by credible start-ups.
- **Integrated Programme for Older Persons (IPOP):** To improve the quality of life of older persons by providing basic amenities like shelter, food, medical care and entertainment opportunities, etc.
- **Rashtriya Vayoshri Yojana (RVY):** Aids and assistive living devices are provided to senior citizens belonging to Below Poverty Line (BPL) category who suffer from age-related disabilities such as low vision, hearing impairment, loss of teeth and locomotor disabilities.

Indira Gandhi National Old Age Pension Scheme (IGNOAPS): Financial assistance is provided to persons of 60 years and above and belonging to families living BPL as per the criteria prescribed by Government of India. Central assistance of Rs 200 per month is provided to persons in the age group of 60-79 years and Rs 500 per month to persons of 80 years and above.

The Pradhan Mantri Vaya Vandana Yojana: It is a pension scheme for senior citizens that comes with guaranteed returns on monthly, quarterly, half-yearly or on an annual basis for a period of 10 years. It is exclusively available to those who are 60 years of age and above.

Vayoshreshtha Samman: Confirmed as a National award, and given to eminent citizens & institutions under various categories for their contributions on International day of older persons on 1st October.

Maintenance and Welfare of Parents and Senior Citizens (MWPSC) Act, 2007: To ensure need-based maintenance for Parents and Senior Citizens and their welfare.

**Global Initiatives:**
- **Decade of Healthy Ageing (2020-2030):** The Decade of Healthy Ageing was endorsed by the 73rd World Health Assembly (decision making body of the World Health Organisation) in 2020.
- **The 2030 Agenda for Sustainable Development** calls for leaving no one behind and for ensuring that the Sustainable Development Goals (SDGs) are met for all segments of society, at all ages, with a particular focus on the most vulnerable— including older persons.

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**Minority Institutions and RTE: NCPCR Survey**

**Why in News**

Recently, the National Commission for the Protection of the Rights of the Child (NCPCR) conducted a Nationwide Assessment of Minority Schools. The report was titled “Impact of Exemption under Article 15 (5) with regards to Article 21A of the Constitution of India on Education of Minority Communities”.

Note:
The aim was to assess how the 93rd Amendment to Indian Constitution, which exempts minority institutions from otherwise mandatory provisions of the Right to Education, affected children belonging to minority communities.

The report highlights the disproportionate number of minority institutions or dominance of non-minority category in Minority institutions.

**National Commission for Protection of Child Rights**
- NCPCR is a statutory body set up in March 2007 under the Commissions for Protection of Child Rights (CPCR) Act, 2005.
- It is under the administrative control of the Ministry of Women & Child Development.
- The Commission’s mandate is to ensure that all laws, policies, programmes, and administrative mechanisms are in consonance with the child rights perspective as enshrined in the Constitution of India and also the UN Convention on the Rights of the Child.
- It inquires into complaints relating to a child’s right to free and compulsory education under the Right to Education Act, 2009.
- It monitors the implementation of Protection of Children from Sexual Offences (POCSO) Act, 2012.

**Key Points**
- **Highlights of the Report:**
  - Minority Schools Catering to the Non-Minorities: Overall, 62.5% of the students in these schools belong to non-minority communities.
  - Only 8.76% of the students in minority schools belong to socially and economically disadvantaged backgrounds.
  - Disproportionate Numbers: In West Bengal, 92.47% of the minority population is of Muslims and 2.47% are Christians. On the contrary, there are 114 Christian minority schools and only two schools with Muslim minority status.
  - Similarly, in Uttar Pradesh, though the Christian population is less than 1% there are 197 Christian minority schools in the state.
  - This disproportion takes away the core objective of establishing minority educational institutions.
  - Non-Uniformity in Madrasas: It found that the largest number of out-of-school children – at 1.1 crore – belonged to the Muslim community.

- According to the report, there are three kinds of madrasas in the country:
  - **Recognised Madrasas:** These are registered and impart both religious as well as secular education;
  - **Unrecognised Madrasas:** These have been found deficient for registration by state governments as secular education is not imparted.
  - **Unmapped Madrasas:** These have never applied for registration.

- According to the NCPCR, the Sachar Committee report 2005, which says 4% of Muslim children (15.3 lakh) attend madrasas, has only taken into account the registered madrasas.
- Further, the syllabi of madrasas, that have evolved over centuries, are not uniform, and that “being left ignorant of the world around them”.
  - Many students develop an inferiority complex, being alienated from the rest of society and unable to adjust with the environment.
  - It also says that madrasas do not have any teachers training programmes.

**Article 15(5), 30, 21A Linkage**
- **Minority Institutions:** Minority institutions have the fundamental right under Article 30 of the Constitution to establish and administer their educational institutions according to their choice.
  - However, they cannot ignore the regulations recommended by the state.
  - Further, the Supreme Court in the TMA Pai Foundation case, 2002 said that Article 30(1) was neither absolute nor above the law.
  - Muslims, Sikhs, Christians, Buddhists, Jain and Zoroastrians (Parsis) have been notified as minority communities under Section 2 (c) of the National Commission for Minorities Act, 1992.
- **Article 15 (5) (93rd Amendment to Indian Constitution):** It empowers the state to make special provisions for the socially and educationally backward classes or the Scheduled Castes or the Scheduled Tribes in educational institutions including private educational institutions (whether aided or unaided by the state), except the minority educational institutions.
Right to Education (RTE): In order to implement Right to Education under Article 21A. The Act mandates 25% reservation for disadvantaged sections of the society where disadvantaged groups include:
- SCs and STs
- Socially Backward Class
- Differently abled

Using Article 30 to Bypassing RTE: Minority schools are outside the purview of the RTE Act. Further, in 2014, the Supreme Court in *Pramati judgment* made the whole RTE Act inapplicable to minority schools.
- The NCPCR survey highlighted that as many schools and institutions have registered as minority institutions, simply because they don’t have to implement RTE.

Suggestions:
- The government should bring all such schools, including madrasas, under the purview of the Right to Education and Sarva Shiksha Abhiyan campaign.
- The NCPCR also backed reservation for students from minority communities in such schools after its survey found a large proportion of non-minority students studying there.
  - There is a need to lay down specific guidelines regarding the minimum percentage of students from the minority community to be admitted to the institution.
- There is a need to review the exemption made under RTE with respect to minority institutions.
  - Article 30 of Indian constitution ensures the right of minorities to open their own institutions for cultural, linguistic and religious protection.
  - However, it should not contravene with Article 21(A) which protects a child’s fundamental right to education.

**Marburg Virus**

*Why in News*

Recently, West Africa’s first case of the extremely contagious and deadly Marburg virus was confirmed in Guinea.
- Its first case was first identified just two months after the country was declared free of Ebola.
- Both the Marburg case and this year’s Ebola cases were detected in Guinea’s Gueckedou district.
- The first cases of the 2014-2016 Ebola epidemic, the largest in history, also were from the same region in Southeastern Guinea’s forest region.

**Key Points**

- **About:**
  - Marburg virus disease is a highly virulent disease that causes haemorrhagic fever, it is carried by bats with a fatality ratio of up to 88%.
  - It is in the same family as the virus that causes Ebola virus disease.
  - Two large outbreaks that occurred simultaneously in Marburg and Frankfurt in Germany, and in Belgrade, Serbia, in 1967, led to the initial recognition of the disease.
    - The outbreak was associated with laboratory work using African green monkeys (*Cercopithecus aethiops*) imported from Uganda.
  - Subsequently, outbreaks and sporadic cases have been reported in Angola, Democratic Republic of the Congo, Kenya, South Africa and Uganda.
  - There have been 12 major Marburg outbreaks since 1967, mostly in southern and eastern Africa.

- **Human-Infection:**
  - Human infection with Marburg virus disease initially results from prolonged exposure to mines or caves inhabited by Rousettus bat colonies.
    - Rousettus is a genus of Old World fruit bats or megabats. They are sometimes referred to as dog-faced fruit bats, or flying foxes.
Once an individual is infected with the virus, Marburg can spread through human-to-human transmission via direct contact (through broken skin or mucous membranes) with the blood, secretions, organs or other bodily fluids of infected people, and with surfaces and materials (e.g. bedding, clothing) contaminated with these fluids.

Symptoms:
- Headache, vomiting blood, muscle pains and bleeding through various orifices.
- Symptoms become increasingly severe and can include jaundice, inflammation of the pancreas, severe weight loss, liver failure, massive hemorrhaging, and multi-organ dysfunction.

Diagnosis:
- Since many of the disease’s symptoms are similar to those of malaria and typhoid fever, making a diagnosis is difficult.
- However, Polymerase Chain Reaction (PCR) and Enzyme-Linked Immunosorbent Assay (ELISA) testing can be used to confirm a case.

Treatment:
- There is no specific treatment or approved vaccine for Marburg hemorrhagic fever. Supportive hospital therapy should be utilized.
- Supportive hospital therapy includes balancing the patient’s fluids and electrolytes, maintaining oxygen status and blood pressure, replacing lost blood and clotting factors, and treatment for any complicating infections.

Continuation of Scheme for Fast Track Courts

Why in News

Recently, the Union Government approved the continuation of more than 1000 Fast Track Special Court (FTSCs) as a Centrally Sponsored Scheme (CSS) for two years (April 2021-March 2023).

- It includes 389 exclusive POCSO (Protection of Children from Sexual Offences) Courts.
- The Central share will be provided from the Nirbhaya Fund.

Key Points

Background:
- Fast track courts (FTCs) were first recommended by the Eleventh Finance Commission in 2000 “to substantially bring down, if not eliminate, pendency in the district and subordinate courts over the next five years”.
- Following the Finance Commission’s report, Rs 502.90 crore was granted by the Centre to create 1,734 additional courts in different states for a period of five years.
- In 2011, the central government stopped funding fast-track courts.
  - The decision was challenged in the Supreme Court (SC) in 2012, but the apex court said it was up to the states to continue or shut down these courts depending on their financial situation.
  - Three states—Maharashtra, Tamil Nadu and Kerala—continued running these courts while Delhi, West Bengal, Himachal Pradesh and Karnataka had said they would continue till 2013.
  - Following the December 2012 Gangrape and murder, the Union Government set up a ‘Nirbhaya Fund’, amended the Juvenile Justice Act and set up fast-track Mahila Courts.
    - Some other states such as Uttar Pradesh, Jammu and Kashmir, Bihar etc. also set up FTCs for rape cases thereafter.

Scheme for Fast Track Special Courts:
- More recently, in 2019, the government approved a scheme for setting up 1,023 fast-track special courts (FTSCs) across the country for expeditious disposal of pending rape cases under the Indian penal Code (IPC) and crimes under the POCSO Act.
  - In July 2019, the SC also directed setting up of a centrally funded special court in each district where more than 100 FIRs are registered under the POCSO Act.
    - In July 2019, the SC also directed setting up of a centrally funded special court in each district where more than 100 FIRs are registered under the POCSO Act in order to deal exclusively with these cases.
  - FTSCs are dedicated courts expected to ensure swift dispensation of justice. They have a better clearance rate as compared to the regular courts and hold speedy trials.
  - It also strengthens the deterrence framework for sexual offenders.

Performance of Fast Track Courts So Far:
The Performance has been below par.

According to NCRB (National Crime Records Bureau), at the end of 2019, rape cases had a pendency rate—pending cases at the end of the year as a percentage of total cases for trial—of 89.5% and the conviction rate of 27.8%.

For POCSO cases, 88.8% cases were pending at the end of the year, and of those disposed of, 34.9% ended in a conviction.

**Issues with FTCs:**

- **Lack of Infrastructure:**
  - Fast-track courts operate no differently than regular courts. It is just like any other court hall in the district judiciary.
  - There are no changes in the legal process to enable the cases to move forward faster. There is no element of process engineering except where it is just fixed as an ad hoc thing (for instance, for high-profile cases), because there is simply no supporting infrastructure to ensure that the timeline is met.

- **No clear Mandate:**
  - There are no clear mandates on what kind of cases fast-track courts are supposed to hear.
  - The fast-track courts set up under the Nirbhaya Fund, for instance, were not clear whether all cases of gender-based violence such as ‘eve-teasing’ (street harassment) or domestic violence came under their purview.

- **Delay in Judgement:**
  - Delay due to absence of witnesses was seen as one of the main reasons for adjournments, showed a study.
  - Another cause for delays is adjournments sought by lawyers.
    - Litigation culture in India encourages seeking adjournments; in fact, clients come to lawyers to delay the cases.
  - Delays can also be caused because many times the decision of a fast-track court is challenged in the high court or the Supreme Court.

- **Overburdened Judges:**
  - Less number of Judicial Officials.
    - As of February, 2020, around 21% of the sanctioned strength (24,018) of judicial officers in subordinate courts was vacant in different states; of the 5,146 vacancies, a large number of seats were vacant in the states of Uttar Pradesh, Bihar, Madhya Pradesh, Rajasthan, and Gujarat.
  - They are more or less judges from sessions courts who are given the extra responsibility of fast-track courts.

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**Inequitable Food System**

**Why in News**

According to a United Nations’ report on the Food System, today’s food systems are heavily afflicted by power imbalances and inequality, and do not work for most women.

- Women are affected disproportionately by the factors such as Climate Change, Covid-19, Discrimination, Less land rights, migration etc.

- The Report has come ahead of the Food Systems Summit in September 2021.

**Key Points**

- **Food Systems:**
  - **Food systems** are a complex web of activities involving production, processing, handling, preparation, storage, distribution, marketing, access, purchase, consumption, food loss and waste, as well as the outputs of these activities, including social, economic and environmental outcomes.

- **Findings from the Report:**
  - **Climate Change:**
    - Women farmers are disproportionately more affected by climate change and land degradation.
    - While women are more likely than men to notice the climate change impacts on agricultural productivity, livestock problems and water availability, they are less likely than men to receive key information on climate and agricultural information that would allow them to plan for climate concerns.
  - **Malnutrition:**
    - They face high levels of obesity and are more susceptible to chronic disease.
    - Indigenous women play a crucial role in eradicating hunger and malnutrition. But limitations

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Note:
in the recognition and exercise of rights have hampered access to equitable systems of food.

_migration_

- Migration among youths over the course of urban transition have had impacts on the gendered nature of economic roles.
- Such migration has entailed a growing gap between the location of food production and food consumption.
- This may have been followed by a change in lifestyle, including dietary habits.

_Covid-19_

- A 2020 UN report had hinted how epidemics can significantly reduce women’s economic and livelihood activities, increasing poverty rates and exacerbating food insecurity.

_Food Insecurity_

- Rural women were among the worst affected among the food insecure population of 821 million (as of 2017).
- As many as 31 African countries depended on external food aid till 2019.

_Discrimination_

- Rural women accounting for nearly half the agricultural workforce in developing countries, face discrimination. They have very little land rights, face difficulties obtaining ownership, do not have access to credit and are engaged in unpaid work.
- This lack of agency reflects in their dietary patterns: They eat least, last and least well. Women farmers who control resources generally have better-quality diets.

_Suggestions_

- **Independent Women Groups are Needed:**
  - Dimitra Clubs in the rural regions of sub-Saharan Africa have been drivers of women's leadership for over a decade. These groups comprise women and men who shed light on the gender inequalities in households and communities.
  - The UN has called for more such independent, social systems at the national as well as the regional level to strengthen institutional architecture and make decision-making processes related to food systems more inclusive.
- **Ensure Access to Fundamental Services:**
  - It urged the systems to adopt policies that eliminate barriers in access to fundamental services, ensuring, for example, the right to food, shelter and health.
  - The report cited the example of German dual training system, an institutional infrastructure that creates a path to jobs and better livelihoods. It integrates school-based learning with work-based practice by providing theoretical training for aspiring farmers as well as short-term courses on specific skills.

**Making Governments and Businesses Accountable:**

- The UN stressed that inequitable systems and structures that enable and exacerbate inequalities for food systems workers and consumers be dismantled and governments, businesses, and organizations be held accountable for ensuring equitable livelihoods.

**India’s Initiatives for Equitable Food System**

- **Class:** Small and marginal farmers FPO (Farmer producer Organisation), Cooperatives, cluster mode of working in most development programs.
- **Disadvantaged sections** (Agricultural labour and tribal population): Dedicated budget allocation for better inclusion in programs.
- **Gender budgeting**, incentives for ensuring greater participation, mahila sashaktikaran pariyojana (women empowerment scheme of M/oRD), National Gender Resource Center for agriculture.
- **Food and nutrition security:** PDS, One Nation One Card, National Nutrition Mission, focus on nutri cereals.

**UN Food Systems Summit**

- **About:**
  - It will be convened as part of the Decade of Action to achieve the Sustainable Development Goals (SDGs) by 2030.
  - The Summit will launch bold new actions to deliver progress on all 17 SDGs, each of which relies to some degree on healthier, more sustainable and equitable food systems.
  - The Food Systems Summit is organised around five action tracks.
- **Action Tracks:**
  - Safe and nutritious food.
Sustainable consumption patterns.
Nature-positive production.
Advance equitable livelihoods.
Resilience to vulnerabilities, shocks and stress.

**India at UN Food Systems Summit:**
- India has volunteered, but not limited to, to the Action Track 4: Advance Equitable Livelihoods for the UN Food System Summit 2021.
- Agriculture being a State subject, implementation of specific initiatives by state governments will be crucial.

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**Samagra Shiksha Scheme 2.0**

**Why in News**

The Cabinet Committee on Economic Affairs has approved the school education programme Samagra Shiksha Scheme 2.0 till the 2025-26 financial year.

- It has been upgraded to align it with the Sustainable Development Goal for Education and the new National Education Policy launched in 2020.

**Key Points**

- **About Samagra Shiksha Scheme:**
  - It is an integrated scheme for school education covering the entire gamut from pre-school to class XII.
  - It aims to deliver inclusive, equitable, and affordable school education.
  - It subsumes the three Schemes of Sarva Shiksha Abhiyan (SSA), Rashtriya Madhyamik Shiksha Abhiyan (RMSA) and Teacher Education (TE).
  - The scheme covers 1.16 million schools, over 156 million students and 5.7 million Teachers of Govt. and Aided schools (from pre-primary to senior secondary level).
  - It is being implemented as a centrally sponsored scheme. It involves a 60:40 split in funding between the Centre and most States. It was launched by the Ministry of Education in 2018.

- **About Samagra Shiksha Scheme 2.0:**
  - **Direct Benefit Transfer (DBT):**
    - In order to enhance the direct outreach of the scheme, all child-centric interventions will be provided directly to the students through DBT mode on an IT-based platform over a period of time.
    - This DBT would include RTE (Right to Education) entitlements such as textbooks, uniforms and transport allowance.

- **On NEP Recommendations:**
  - Encouraging Indian languages:
    - It has a new component for appointment of language teachers, which includes salaries, and training costs as well as bilingual books and teaching learning material as recommended in NEP.
  - Pre-primary Education:
    - It will now include funding to support pre-primary sections at government schools, i.e. for teaching and learning materials, indigenous toys and games and play-based activities.
    - Master trainers for pre-primary teachers and anganwadi workers will be supported under the scheme.
  - **NIPUN Bharat Initiative:**
    - Under this initiative, an annual provision of Rs. 500 per child for learning materials, Rs. 150 per teacher for manuals and resources and Rs. 10-20 lakh per district will be given for assessment for foundational literacy and numeracy.
  - **On Digital Initiatives:**
    - There is a provision for ICT labs and smart classrooms, including support for digital boards, virtual classrooms and DTH channels which have become more important in the wake of the Covid-19 pandemic.
  - **For out-of-school children:**
    - It includes a provision to support out of school children from age 16 to 19 with funding of Rs. 2000 per grade to complete their education via open schooling.
    - There will also be a greater focus on skills and vocational education, both for students in school and dropouts.

- **Other Features:**
  - Financial support for State Commission for Protection of Child Rights @ Rs 50 per elementary school in the state, for protection of child rights and safety.
Holistic, 360-degree, multi-dimensional reports showing progress/ uniqueness of each learner in the cognitive, affective, and psychomotor domains will be introduced in the form of Holistic Progress Card (HPC).

Support for activities of PARAKH, a national assessment centre (Performance, Assessments, Review and Analysis of Knowledge for Holistic Development)

Additional Sports grant of upto Rs. 25000 to schools in case at least 2 students of that school win a medal in Khelo India school games at the National level.

Provision for Bagless days, school complexes, internships with local artisans, curriculum and pedagogical reforms etc included.

Support for Social Audit covering 20% of schools per year so that all schools are covered in a period of Five years.

The forum will consist of 10 members:
- five elected by the General Assembly from all regions.
- five appointed by the Human Rights Council following consultations with regional groups and organizations of people of African descent.

The resolution calls for the forum’s first session to take place in 2022.

People of African Descent:
- About:
  - There are around 200 million people identifying themselves as being of African descent live in the Americas.
  - Many millions more live in other parts of the world, outside of the African continent.

- Issues:
  - Whether as descendants of the victims of the transatlantic slave trade or as more recent migrants, they constitute some of the poorest and most marginalized groups.
  - They still have limited access to quality education, health services, housing and social security.
  - They all too often experience discrimination in their access to justice, and face alarmingly high rates of police violence, together with racial profiling.
  - Furthermore, their degree of political participation is often low, both in voting and in occupying political positions.

- Related Initiative:
  - Durban Declaration and Programme of Action (2001):
    - It acknowledged that people of African descent were victims of slavery, the slave trade and colonialism, and continue to be victims of their consequences.
    - It raised the visibility of them and contributed to a substantive advancement in the promotion and protection of their rights as a result of concrete actions taken by States, the United Nations, other international and regional bodies and civil society.
  - In 2014, the General Assembly officially launched the International Decade for People of African Descent (2015 - 2024).
Racism

About:
- Racism, also called racialism is the belief that humans may be divided into separate and exclusive biological entities called “races”; that there is a causal link between inherited physical traits and traits of personality, intellect, morality, and other cultural and behavioral features; and that some races are innately superior to others.
- The term is also applied to political, economic, or legal institutions and systems that engage in or perpetuate discrimination on the basis of race or otherwise reinforce racial inequalities in wealth and income, education, health care, civil rights, and other areas.
- Xenophobia and Racism mostly overlap, but the stark difference is racism is discrimination based on physical characteristics whereas xenophobia is discrimination based on the perception that someone is foreign or originating from another community or nation.
  - The word Xenophobia originates from the Greek word Xeno.
- Racial discrimination is there in the Indian society.

Initiatives Against Racism:
- Every year, 21st March, is observed as International Day for the Elimination of Racial Discrimination.
- United Nations Educational, Scientific and Cultural Organization’s (UNESCO) actions against racism through education, the sciences, culture, and communication offer an example of a way forward.
- In January 2021, the World Economic Forum launched a coalition of organizations committed to improving racial and ethnic justice in the workplace.
- The ‘Black Lives Matter’ protests gained momentum in not only the United States but the whole world. People, as well as many governments across different countries, came forth against the prevalence of racial discrimination worldwide.

Provisions Against Racial Discrimination in India:
- Article 15, Article 16 and Article 29 of the Constitution of India prohibit discrimination on grounds of “race”.
- Section 153A of the Indian Penal Code (IPC) also refers to “race”.
- India also ratified the International Convention on the Elimination of All Forms of Racial Discrimination (ICERD) in 1968.

Road to Zero Hunger Goal: SDG 2

Why in News
According to a recent report by the United Nations, the goal of achieving Sustainable Development Goals (SDG) 2 i.e. ‘Zero Hunger’ has been hit in the wake of the novel coronavirus disease (Covid-19) pandemic.

- The zero hunger goal works in tandem with many others: Poverty elimination (SDG1), good health and well-being (SDG3), and the need for clean drinking water (SDG6).

Key Points
- Relation with other SDGs:
  - SDG 2 and SDG 1: Food security does not only rely on food availability, but also on food access. If food security and poverty can be seen as part of the same battle, reduction of poverty should not only be sought through lower food prices but also through higher income.
  - SDG 2 and SDG 3: Nutrition is key to good health, so the relation between SDG 2 and SDG 3 is also synergetic. Environmental health through a more sustainable agriculture also establishes a link between SDG2 and SDG 3.
  - Agricultural activities substantially contribute to global pollution: Biomass burning causes air pollution and land clearing contributes to fuel combustion emissions.
  - Agriculture ammonia emissions also impact human health. They are behind several hundred thousand premature deaths per year globally.
Other SDGs: Similarly, education (SDG4), gender equality (SDG5), decent work and economic growth (SDG8), reduction of inequality (SDG10), sustainable cities and communities (SDG11), peace, justice and strong institutions (SDG16), and partnership for the goals (SDG17) also influence consumption patterns and healthy diet choice.

- Gender inequality makes several women food insecure: Female workers are a substantial share of the agricultural workforce, but face difficulties in accessing land, livestock, education, extension and financial services.
- Decent work and economic growth (SDG8) and reduction of inequality (SDG10) can also support better nutrition by going beyond SDG1 and bringing economic resources.

Challenges:
- One of the most widely studied adverse environmental impacts of the food system is its contribution to climate change.
  - The food system contributes 34% of the anthropogenic greenhouse gas emissions.
- Overconsumption of water resources is another critical challenge faced by agriculture.
  - Irrigation represents about 70% of global water withdrawals, and this demand is expected to continue to increase in the coming decades.
- Excess use of nitrogen (N) and phosphorus (P) is harmful for terrestrial and marine ecosystems.
  - Excess of N causes acidification of soils and freshwater; Nitrous oxide (N₂O) causes climate-warming emissions and stratospheric ozone depletion.

Suggestions:
- Facilitating new investment, research and innovation for sustainable agriculture.
- Reducing food waste and losses.
- Changing our consumption patterns to leverage considerable benefits on SDG outcomes by relieving pressure on natural resources and fostering the health benefits.

Hunger Hotspots Report: FAO-WFP

Why in News

Recently, the Food and Agriculture Organization (FAO) and the World Food Programme (WFP) released a report named Hunger Hotspots - August to November 2021.

- The 2021 Global Food Crises Report released in May 2021 had already warned of acute food insecurity, soaring to a five-year high, pushing at least 155 million people into acute food insecurity in 2020.

Key Points

- Major Hunger Hotspots:
  - Ethiopia, Madagascar, South Sudan, northern Nigeria and Yemen are among 23 countries where acute food insecurity will worsen from August through November, 2021.
  - Ethiopia and Madagascar are the world’s newest “highest alert” hunger hotspots.
    - Ethiopia faces a devastating food emergency linked to ongoing conflict in the Tigray region.
    - Meanwhile, in southern Madagascar the worst drought in 40 years is expected to push 28,000 people into famine-like conditions by the end of 2021.

- Factors causing food insecurity:
  - Violence:
    - Population displacement, abandonment of agricultural land, loss of life and assets, disruption of trade and cropping and loss of access to markets caused by conflicts can worsen food insecurity.
      - Violence is predicted to intensify in Afghanistan, Central Sahel, the Central African Republic etc.
    - Violence is also likely to disrupt access to humanitarian assistance.

India’s Initiatives for Making Food Systems Sustainable

- Achievements of India’s Green Revolution and learnings there from.
- Cropping patterns are being changed as per agro ecological zones defined for the country.
- Alternate farming including organic and natural farming
- Enhancing water use efficiency in agriculture.
- Integrated farming systems.
- National Initiative on Climate Resilient Agriculture
Pandemic Shocks:
- In 2020, almost all low- and middle-income countries were affected by the Pandemic-induced economic downturns.

Natural Hazards:
- Extreme weather conditions and climate variability are likely to affect several parts of the world during the outlook period.
- In Haiti, for instance, reduced precipitation during the main growing season ended May is likely to have impacted yield. Continued below-average rainfall, on the hand, is likely to reduce yield during the main rice-growing season.
- Desert Locust infestation was a major worry in the Horn of Africa at the beginning of July 2021, while other regions were unaffected.

Poor humanitarian access:
- Humanitarian access is limited in various ways, including administrative / bureaucratic impediments, movement restrictions, security constraints and physical constraints related to the environment.
- Countries currently facing the most significant obstacles, preventing aid from reaching those who need it most are Afghanistan, Ethiopia, the Central African Republic etc.

Suggestions:
- Short-term Interventions:
  - Short-term protective interventions be implemented before new humanitarian needs materialise and immediate actions are to be taken for addressing existing humanitarian requirements.
- Integration of policies:
  - Integrate humanitarian, development and peacebuilding policies in conflict areas – for example, through social protection measures to prevent families from selling meagre assets in exchange for food.
- Climate Resilience:
  - Scale-up climate resilience across food systems by offering smallholder farmers wide access to climate risk insurance and forecast-based financing.
- Strengthen Resilience:
  - Strengthen the resilience of the most vulnerable to economic adversity through in-kind or cash support programmes to lessen the impact of pandemic-style shocks or food price volatility.

India’s Step in Ensuring Food Security

National Food Security Mission:
- It aims to increase production of rice, wheat, pulses, coarse cereals and commercial crops, through area expansion and productivity enhancement.

PM Garib Kalyan Ann Yojana (PMGKAY):
- It aimed at providing each person who is covered under the National Food Security Act 2013 with an additional 5 kg grains (wheat or rice) for free, in addition to the 5 kg of subsidised foodgrain already provided through the Public Distribution System (PDS).

One Nation One Ration Card:
- It will address the poor state of hunger in India, as highlighted by the Global Hunger Index, where India has been ranked 102 out of 117 countries

Pradhan Mantri Kisan Samman Nidhi:
- It intends to supplement the financial needs of the Small and Marginal Farmers (SMFs) in procuring various inputs to ensure proper crop health and appropriate yields, commensurate with the anticipated farm income at the end of each crop cycle.

The National Food Security Act (NFSA), 2013:
- It legally entitled up to 75% of the rural population and 50% of the urban population to receive subsidized food grains under the Targeted Public Distribution System.
- The eldest woman of the household of age 18 years or above is mandated to be the head of the household for the purpose of issuing ration cards under the Act.

Food and Agriculture Organization
- FAO is a specialized agency of the United Nations (UN) that leads international efforts to defeat hunger.
- World Food Day is celebrated every year on 16th October to mark the anniversary of the founding of the FAO in 1945.
- It is one of the UN food aid organisations based in Rome (Italy). Its sister bodies are the World Food Programme and the International Fund for Agricultural Development (IFAD).
World Food Programme

- It is the leading humanitarian organization saving lives and changing lives, delivering food assistance in emergencies and working with communities to improve nutrition and build resilience.
- It was awarded the Nobel Peace Prize for 2020 for its efforts to combat hunger.
- It was founded in 1961 by the Food and Agriculture Organization (FAO) and United Nations General Assembly (UNGA) with its headquarters in Rome, Italy.
- WFP focuses on emergency assistance as well as rehabilitation and development aid.
- Two-thirds of its work is in conflict-affected countries, where people are three times more likely to be undernourished than elsewhere.

Adverse Impacts of Food Fortification

Why in News

Recently, a group of scientists and activists have warned the Food Safety and Standards Authority of India (FSSAI) of the adverse impacts of food fortification on health and livelihoods.

- It is a pushback against the Centre's plan to mandatorily fortify rice and edible oils with vitamins and minerals.
- In order to fight chronic anaemia and undernutrition, the government is making plans to distribute fortified rice through the Integrated Child Development Services and Mid Day Meal Schemes across the country from the year 2021, with special focus on Aspirational districts.

Key Points

- Inconclusive Evidence:
  - Evidence supporting fortification is inconclusive and certainly not adequate before major national policies are rolled out.
  - Many of the studies which FSSAI relies on to promote fortification are sponsored by food companies who would benefit from it, leading to conflicts of interest.

- Hypervitaminosis:
  - Recent studies published in the medical journal Lancet and in the American Journal of Clinical Nutrition which show that both anaemia and Vitamin A deficiencies are overdiagnosed, meaning that mandatory fortification could lead to hypervitaminosis.
  - Hypervitaminosis is a condition of abnormally high storage levels of vitamins, which can lead to various symptoms such as over excitement, irritability, or even toxicity.

- Toxicity:
  - One major problem with chemical fortification of foods is that nutrients don’t work in isolation but need each other for optimal absorption. Undernourishment in India is caused by monotonous cereal-based diets with low consumption of vegetables and animal protein.
  - Adding one or two synthetic chemical vitamins and minerals will not solve the larger problem, and in undernourished populations can lead to toxicity.
  - A 2010 study that showed iron fortification causing gut inflammation and pathogenic gut microbiota profile in undernourished children.

- Cartelisation:
  - Mandatory fortification would harm the vast informal economy of Indian farmers and food processors including local oil and rice mills, and instead benefit a small group of multinational corporations who will have sway over a Rs.3,000 crore market.
  - Just five corporations have derived most of the benefits of global fortification trends and these companies have historically engaged in cartelising behaviour leading to price hikes.
  - The European Union has been forced to fine these companies for such behaviour.

Note:

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Note:
Decrease Value of Natural Food:
- Dietary diversity was a healthier and more cost-effective way to fight malnutrition. Once iron-fortified rice is sold as the remedy to anaemia, the value and the choice of naturally iron-rich foods like millets, varieties of green leafy vegetables, flesh foods, liver, to name a few, will have been suppressed by a policy of silence.

Food Fortification

- About:
  - According to the World Health Organisation (WHO), food fortification is defined as the practice of deliberately increasing the content of essential micronutrients so as to improve the nutritional quality of the food supply and to provide a public health benefit with minimal risk to health.
  - It can be noted that biofortification differs from conventional food fortification in that biofortification aims to increase nutrient levels in crops during plant growth rather than through manual means during processing of the crops.

- Types:
  - Targeted:
    - Food fortification can be done for foods widely consumed by the general population (mass fortification), to fortify foods designed for specific population subgroups, such as complementary foods for young children or rations for displaced populations.
  - Market-Driven:
    - To allow food manufacturers to voluntarily fortify foods available in the marketplace (market-driven fortification).

- Procedure:
  - The extent to which a national or regional food supply is fortified varies considerably. The concentration of just one micronutrient might be increased in a single foodstuff (e.g. the iodization of salt), or, at the other end of the scale, there might be a whole range of food–micronutrient combinations.

- Government Interventions:
  - FSSAI Regulations:
    - In October 2016, FSSAI operationalized the Food Safety and Standards (Fortification of Foods) Regulations, 2016 for fortifying staples namely Wheat Flour and Rice (with Iron, Vitamin B12 and Folic Acid), Milk and Edible Oil (with Vitamins A and D) and Double Fortified Salt (with Iodine and Iron) to reduce the high burden of micronutrient malnutrition in India.
  - Nutritional Strategy:
    - India’s National Nutritional strategy, 2017, had listed food fortification as one of the interventions to address anaemia, vitamin A and iodine deficiencies apart from supplementation and dietary diversification.
  - Milk Fortification Project:
    - The Milk Fortification Project was launched by the National Dairy Development Board (NDDB) in collaboration with the World Bank and Tata Trusts, as a pilot project in 2017.

Medical Termination of Pregnancy (MTP) Amendment Act, 2021

Why in News

Recently, the Delhi High Court has allowed the medical termination of pregnancy of a woman who had completed 22 weeks of gestation as the foetus was suffering from multiple abnormalities.

- Gestation is the foetal development period from the time of conception until birth.
- In India, the Medical Termination of Pregnancy (MTP) Act stipulates a ceiling of 20 weeks, for termination of pregnancy, beyond which abortion of a foetus is statutorily impermissible.

Key Points

- About MTP Act:
  - The Medical Termination of Pregnancy Act, 1971 ("MTP Act") was passed due to the progress made in the field of medical science with respect to safer abortions.
  - In a historic move to provide universal access reproductive health services, India amended the MTP Act 1971 to further empower women by providing comprehensive abortion care to all.
The new Medical Termination of Pregnancy (Amendment) Act 2021 expands the access to safe and legal abortion services on therapeutic, eugenic, humanitarian and social grounds to ensure universal access to comprehensive care.

### Key Provisions of the MTP Amendment Act, 2021:

- **Termination due to Failure of Contraceptive Method or Device:**
  - Under the Act, a pregnancy may be terminated up to 20 weeks by a married woman in the case of failure of contraceptive method or device. It allows unmarried women to also terminate a pregnancy for this reason.

- **Opinion Needed for Termination of Pregnancy:**
  - Opinion of one Registered Medical Practitioner (RMP) for termination of pregnancy up to 20 weeks of gestation.
  - Opinion of two RMPs for termination of pregnancy of 20-24 weeks of gestation.
  - Opinion of the State-level medical board is essential for a pregnancy to be terminated after 24 weeks in case of substantial foetal abnormalities.

- **Upper Gestation Limit for Special Categories:**
  - Increases the upper gestation limit from 20 to 24 weeks for special categories of women, including survivors of rape, victims of incest and other vulnerable women (differently abled women, minors, among others).

- **Confidentiality:**
  - The “name and other particulars of a woman whose pregnancy has been terminated shall not be revealed”, except to a person authorised in any law that is currently in force.

### Significance:

- The new law will contribute towards ending preventable maternal mortality to help meet the Sustainable Development Goals (SDGs) 3.1, 3.7 and 5.6

- SDG 3.1 pertains to reducing maternal mortality ratio whereas SDGs 3.7 and 5.6 pertain to universal access to sexual and reproductive health and rights.

- The amendments will increase the ambit and access of women to safe abortion services and will ensure dignity, autonomy, confidentiality and justice for women who need to terminate pregnancy.

### Issues:

- **Different opinions on Termination:**
  - One opinion is that terminating a pregnancy is the choice of the pregnant woman and a part of her reproductive rights while the other is that the state has an obligation to protect life, and hence should provide for the protection of the foetus.

- Across the world, countries set varying conditions and time limits for allowing abortions, based on foetal health, and risk to the pregnant woman.

- **Not allowed beyond 24-weeks:**
  - The Act allows abortion after 24 weeks only in cases where a Medical Board diagnoses substantial foetal abnormalities.

- This implies that for a case requiring abortion due to rape, that exceeds 24-weeks, the only recourse remains through a Writ Petition.

- **Abortion to be performed by doctors:**
  - The Act require abortion to be performed only by doctors with specialisation in gynaecology or obstetrics.

- As there is a 75% shortage of such doctors in community health centers in rural areas, pregnant women may continue to find it difficult to access facilities for safe abortions.
**Issue of Illegal Migrants**

**Why in News**

Recently, the Ministry of Home Affairs has informed in the Lok Sabha that according to some reports some Rohingya migrants are indulging in illegal activities.

- The response came on the queries about the current situation of Rohingya living illegally in various parts of the country.

**Rohingya**

- The Rohingya people are a stateless, Indo-Aryan ethnic group who reside in Rakhine State, Myanmar.
- They are described by the United Nations (UN) as one of the most persecuted minorities in the world.
- The Rohingya refugee crisis is caused by the Rohingya people having long faced violence and discrimination in Myanmar.
- To escape discrimination and violence in Myanmar, minority Rohingya Muslims have for decades fled from the Buddhist-majority country to neighboring Bangladesh and other countries, including India.

**Key Points**

- **Issues & Concerns:**
  - **Threat to National Security:**
    - The continuance of the illegal immigration of Rohingyas into India and their continued stay in India is found to be having serious national security ramifications and poses serious security threats.
  - **Clash of Interests:**
    - It impacts the interests of local populations in the areas seeing large-scale influxes of illegal immigrants.

- **Steps Taken by Government:**
  - Centre had issued instructions to the State governments and Union Territory administrations, advising them to sensitisate the law enforcement and intelligence agencies to take appropriate steps for prompt identification of illegal migrants.
  - Consolidated instructions to tackle the issue of overstay and illegal migration of foreign nationals have also been issued.

- **Existing Legal Framework:**
  - **The Passport (Entry into India) Act, 1920:**
    - The act empowered the government to make rules requiring persons entering India to be in possession of passports.
    - It also granted the government the power to remove from India any person who entered without a passport.
  - **Foreigners Act, 1946:**
• It replaced the **Foreigners Act, 1940** conferring wide powers to deal with all foreigners.
• The act **empowered the government** to take such steps as are necessary to prevent illegal migrants including the use of force.
• The concept of ‘burden of proof’ lies with the person, and not with the authorities given by this act is still applicable in all States and Union Territories. This concept has been upheld by a Constitution Bench of the **Supreme Court**.
• The act empowered the government to establish **tribunals** which would have powers similar to those of a civil court.
• Recent amendments (2019) to the Foreigners (Tribunals) Order, 1964 empowered even district magistrates in all States and Union Territories to set up tribunals to decide whether a person staying illegally in India is a foreigner or not.

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**Illegal Migrants Vs Refugee**

- **Illegal Migrants:**
  - The **foreign nationals** who enter the country without valid travel documents are treated as illegal migrants.
- **Refugee:**
  - Under the **1951 UN Convention on the Status of Refugees** and the subsequent 1967 Protocol, the word **refugee pertains to** any person who is outside their country of origin and unable or unwilling to return owing to well-founded fear of persecution for reasons of race, religion, nationality, membership of a particular social group or political opinion.
  - India is not a signatory to the **1951 UN Convention** relating to the Status of Refugees and the 1967 Protocol thereon.
  - **Stateless persons may also be refugees in this sense**, where country of origin (citizenship) is understood as ‘**country of former habitual residence**’.

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**Women in Combat Role in ITBP**

**Why in News**

For the first time, the **Indo-Tibetan Border Police (ITBP)** inducted women officers in the combat role. Two women officers joined it as Assistant Commandants (AC).

**Indo-Tibetan Border Police Force**

- ITBP is a **Central Armed Police Force** functioning under the **Ministry of Home Affairs**, Government of India.
- Other Central Armed Police Forces are: Assam Rifles (AR), Border Security Force (BSF), Central Industrial Security Force (CISF), Central Reserve Police Force (CRPF), National Security Guards (NSG) and Sashastra Seema Bal (SSB).
- The ITBP was raised on **24th October, 1962** during the India-China War and is a border guarding police force specializing in high altitude operations.
- Presently, ITBP is deployed on border guarding duties from Karakoram Pass in Ladakh to Jachep La in Arunachal Pradesh covering 3488 km of Indo-China Border.
- The Force is also deployed for **Anti Naxal operations** and other internal security duties.
- ITBP was initially raised under the **Central Reserve Police Force (CRPF) Act**, 1949. However, in **1992**, **parliament enacted the ITBP Act** and the rules were framed in 1994.

**Key Points**

- **About:**
  - Women officers joining the ITBP as officers have served in combat roles earlier as well.
However, it was only in 2016 when the appointment of women as combat officers through the Central Armed Police Forces (CAPF) entrance exam conducted by the UPSC (Union Public Service Commission) was approved.

- **Status of Women in the Indian Armed Forces (under the Ministry of Defence):**
    - This was the first time when women were allowed to join the military outside the medical stream.
  - One of the turning points for women in the military came in 2015 when Indian Air Force (IAF) decided to induct them into the fighter stream.
  - In 2020, the Supreme Court (SC) ordered the central government to grant Permanent Commission (PC) to women officers in the Army’s non-combat support units on par with their male counterparts.
    - The SC had rejected the government’s stand of women officers’ physiological limitations as being based on “sex stereotypes” and “gender discrimination against women”.
    - Women officers have been granted PC in the Indian Army in all the ten branches where women are inducted for SSC.
    - Women are now eligible to occupy all the command appointments, at par with male officers, which would open avenues for further promotions to higher ranks for them.
  - In early 2021, the Indian Navy deployed four women officers on warships after a gap of almost 25 years.
    - India’s aircraft carrier INS Vikramaditya and fleet tanker INS Shakti are the warships that have been assigned their first women crews since the late 1990s.
  - In May 2021, the Army inducted the first batch of women into the Corps of Military Police, the first time that women joined the military in the non-officer cadre.
    - However, Women are still not allowed in combat arms like Infantry and Armored Corps.

- **Issues with Women in Combat Role:**
  - **Physical Issues:** The natural physical differences in stature, strength, and body composition between the sexes make women more vulnerable to certain types of injuries and medical problems.
    - Pre-entry physical fitness levels tend to be lower in most women recruits compared with men.
    - Hence, when standards of training remain same for the two genders, there is a higher probability of injuries among the women.
  - **Physiological Issues:** The natural processes of menstruation and pregnancy make women particularly vulnerable in combat situations.
    - Lack of privacy and sanitation can result in an increased incidence of genitourinary infections.
    - The effect of prolonged deployment in difficult terrains and grueling physical activity on the reproductive health of women is still unknown.
  - **Social and Psychological Issues:** Women tend to be more attached to their families, particularly their children.
    - This translates into greater mental stress and requirement of social support to sustain themselves during prolonged separations from family.
    - The issue of military sexual trauma (MST) and its effect on the physical and mental well-being of women combatants is grave.
  - **Conventional Barriers:** Cultural barriers in society may be the biggest impediment to induction of women in combat.
    - Another major question that needs to be studied is the acceptance of orders of the women officers by the jawans.

- **Counter-Arguments:**
  - **Gender is not a Hindrance:** As long as an applicant is qualified for a position, one’s gender is arbitrary. In the modern high technology battlefield, technical expertise and decision-making skills are increasingly more valuable than simple brute strength.
  - **Military Readiness:** Allowing a mixed gender force keeps the military strong. The armed forces are severely troubled by falling retention and recruitment rates. This can be addressed by allowing women in the combat role.
  - **Effectiveness:** The blanket restriction for women limits the ability of commanders in theater to pick the most capable person for the job.
Tradition: Training will be required to facilitate the integration of women into combat units. Cultures change over time and the masculine subculture can evolve too.

Global Scenario: When women officially became eligible for combat positions in the American military in 2013, it was widely hailed as another step towards the equality of sexes. In 2018, the UK military lifted a ban on women serving in close combat ground roles, clearing the way for them to serve in elite special forces.

INS Vikrant Begins Sea Trials

Why in News

Recently, the Indigenous Aircraft Carrier (IAC) 1 named INS Vikrant, started sea trials (one of the last phases of trials).

- It is likely to be commissioned in 2022. At present, India has only one aircraft carrier, the Russian-origin INS Vikramaditya.
- Earlier, the Defence Acquisition Council (DAC) approved issuance of Request for Proposal (RFP) for six advanced submarines for the Indian Navy under Project-75I.

Key Points

- **About:**
  - The vessel, to be named Vikrant after the decommissioned maiden carrier of the Navy.
  - India acquired the Vikrant from the United Kingdom in 1961, and the carrier played a stellar role in the 1971 war with Pakistan that led to the birth of Bangladesh.
  - Over 76% of the material and equipment on board IAC-1 is indigenous.

- It will have an air component of 30 aircraft, comprising MiG-29K fighter jets, Kamov-31 airborne early warning helicopters and the soon-to-be-inducted MH-60R multi-role helicopter, besides the indigenous Advanced Light Helicopters.
- It is expected to have a top speed of 30 knots (approximately 55 kmph) and is propelled by four gas turbines. Its endurance is 7,500 nautical miles at 18 knots (32 kmph) speed.
- The shipborne weapons include Barak LR SAM and AK-630, while it has MFSTAR and RAN-40L 3D radars as sensors. The vessel has a Shakti EW (Electronic Warfare) Suite.
- It has a pair of runways and a ‘short take off but arrested recovery’ system to control aircraft operations.

Significance:

- Adds Combat and Sea Control Capability, especially in the Indian Ocean Region.
- Increased Ability of Air Power: It would offer an incomparable military instrument with its ability to project air power over long distances, including air interdiction, anti-surface warfare, offensive and defensive counter-air, airborne anti-submarine warfare and airborne early warning.
- Self-Reliance: Only five or six nations currently have the capability of manufacturing an aircraft carrier — India joins this elite club now.

Future Endeavours:

- Since 2015, the Navy has been seeking approval to build a third aircraft carrier for the country, which, if approved, will become India’s second Indigenous Aircraft Carrier (IAC-2).
- This proposed carrier, to be named INS Vishal, is intended to be a giant 65,000-tonne vessel, much bigger than IAC-1 and the INS Vikramaditya.
Vehicle Scrapping Policy Launched

Why in News

Recently, the Prime Minister while addressing the Investor Summit in Gujarat via video conferencing launched the Vehicle Scrapping Policy / National Automobile Scrappage Policy.

- The Summit will invite investment for setting up vehicle scrapping infrastructure under the Vehicle Scrapping Policy.
- The Vehicle Scrapping Policy was announced in March 2021 by the government.

Key Points

- Aim:
  - Reducing the population of old and defective vehicles, bringing down vehicular air pollutants, improving road and vehicular safety.
- Provisions:
  - Fitness Test:
    - Old vehicles will have to pass a fitness test before re-registration and as per the policy government commercial vehicles more than 15 years old and private vehicles which are over 20 years old will be scrapped.
    - Emission test, braking system, safety components will be tested and the vehicles which fail in the fitness test will be scrapped.
    - If the old vehicle passes the test, the owner can continue to use it, but the charges for reregistration will be much steeper.
  - Road Tax Rebate:
    - The state governments may be advised to offer a road-tax rebate of up to 25% for personal vehicles and up to 15% for commercial vehicles.
to provide incentive to owners of old vehicles to scrap old and unfit vehicles.

- **Vehicle Discount:**
  - Vehicle manufacturers will also give a discount of 5% to people who will produce the ‘Scraping Certificate’ and registration fees will be waived off on the purchase of a new vehicle.

- **Disincentive:**
  - As a disincentive, increased re-registration fees would be applicable for vehicles 15 years or older from the initial date registration.

- **Significance:**
  - Creation of Scrap yards:
    - It will lead to creation of more scrap yards in the country and effective recovery of waste from old vehicles.
    - India had to import 23,000 crore worth of scrap steel during the last year as India’s scrapping is not productive and India is not able to recover energy and rare earth metals.

  - Employment:
    - In the new fitness centers, 35 thousand people will get employment and an investment of Rs 10,000 crores will be pumped in.

  - Improved Revenue:
    - This will boost sales of heavy and medium commercial vehicles that had been in the contraction zone as a result of economic slowdown triggered by the bankruptcy of IL&FS (Infrastructure Leasing & Financial Services) and Covid-19 pandemic.
    - The government treasury is expected to get around Rs 30,000 to 40,000 crores of money through Goods and Services Tax (GST) from this policy.

  - Reduction in Prices:
    - Prices of auto components would fall substantially with the recycling of metal and plastic parts.
    - As scrapped materials will get cheaper the production cost of the vehicle manufacturers will also reduce.

  - Reduce Pollution:
    - It will play a major role in modernising the vehicular population as it will help in phasing out the unfit and polluting vehicles across the country and promote a circular economy and waste to wealth campaign.
    - As older vehicles pollute the environment 10 to 12 times more, and estimated that 17 lakh medium and heavy commercial vehicles are more than 15 years old.

- **Other Initiatives to Curb Vehicular Pollution:**
  - Go Electric Campaign
  - FAME India Scheme Phase II.
  - Hydrogen Fuel Cell Based Bus and Car Project.

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**Ballistic Missile Ghaznavi: Pakistan**

**Why in News**

Recently, Pakistan has successfully test-fired a nuclear-capable surface-to-surface ballistic missile ‘Ghaznavi’.

- It is capable of delivering multiple types of warheads up to a range of 290 kilometres.
- Earlier, Shaheen-3, Babur cruise missile and the Fatah-1 were launched.

**Key Points**

- **Ballistic Missile:**
  - It is a rocket-propelled self-guided strategic-weapons system that follows a ballistic trajectory to deliver a payload from its launch site to a predetermined target.
  - It can carry conventional high explosives as well as chemical, biological, or nuclear munitions.
  - The International Code of Conduct against Ballistic Missile Proliferation (ICOC), now known as the Hague Code of Conduct against Ballistic Missile Proliferation (HCOC), is a political initiative aimed at globally curbing ballistic missile proliferation.
  - India is a signatory to this convention.
  - Established in April 1987, the voluntary Missile Technology Control Regime (MTCR) aims to limit the spread of ballistic missiles and other unmanned delivery systems that could be used for chemical, biological, and nuclear attacks.
  - India has joined the MTCR.
Some of India’s Ballistic Missiles:
- Agni P missile
- Shaurya missile
- Prithvi missile
- Dhanush, etc.

Ujjwala 2.0

Why in News
Recently, the Prime Minister launched the second phase of Pradhan Mantri Ujjwala Yojana (PMUY) or Ujjwala 2.0 Scheme.
- He mentioned plans to promote “gobar dhan” – tapping cow dung for energy on the occasion of World Bio Fuel Day (10th August).
- Ujjwala is part of the ambitious agenda for behavioural change that will help India transit to a $5 trillion economy by 2024.

Key Points
- About:
  - PMUY-I: Launched in May 2016 to provide LPG (liquefied petroleum gas) connections to poor households.
  - PMUY-II: It is aimed to provide maximum benefit to the migrants who live in other states and find it difficult to submit address proof.
  - Now they will only have to give “Self Declaration” to avail the benefit.
- Objectives:
  - Empowering women and protecting their health.
  - Reducing the number of deaths in India due to unclean cooking fuel.
  - Preventing young children from a significant number of acute respiratory illnesses caused due to indoor air pollution by burning fossil fuel.
- Features:
  - The scheme provides a financial support of Rs 1600 for each LPG connection to the BPL households.
  - Along with a deposit-free LPG connection, Ujjwala 2.0 will provide the first refill and a hotplate free of cost to the beneficiaries.
- Target:

Under Ujjwala 1.0, the target was to provide LPG connections to 50 million women from the below poverty line (BPL) households, by March 2020. However, in August 2018, women from seven other categories were brought under the purview of the scheme:
- SC/ST, those under the Pradhan Mantri Awas Yojana (PMAY), beneficiaries of the Antyoday Anna Yojana (AAY), Forest Dwellers, most backward classes, tea gardens and Islands.

Under Ujjwala 2.0, an additional 10 million LPG connections will be provided to the beneficiaries.
- Government has also fixed a target of providing piped gas to 21 lakh homes in 50 districts.

- Nodal Ministry:
  - Ministry of Petroleum and Natural Gas (MoPNG).
- Achievements:
  - In the first phase of the PMUY, 8 crore poor families, including from the Dalit and tribal communities, were given free cooking gas connections.
  - The LPG infrastructure has expanded manifold in the country. In the last six years, more than 11,000 new LPG distribution centres have opened across the country.
- Challenges:
  - Low Consumption of Refills:
    - Encouraging the sustained usage of LPG remains a big challenge, and low consumption of refills hindered recovery of outstanding loans disbursed under the scheme.
    - The annual average refill consumption on 31st December 2018 was only 3.21.
  - System Anomalies:
    - There are deficiencies such as the issuance of connections to unintended beneficiaries, and problems with the software of the state-run oil marketing companies for identifying intended beneficiaries and inadequacies in the deduplication process.

International Baccalaureate

Why in News
Recently, the Delhi Board of School Education (DBSE) signed a Memorandum of Understanding (MoU) with
International Baccalaureate (IB) to implement IB programmes in 30 government schools, including 20 of its new Schools of Specialised Excellence (SOSE) in 2021.

➢ With the signing of this MoU, government school students will get access to international level of educational facilities.
➢ Students of these schools will be issued joint certification by the IB and the Delhi board when they complete schooling.

Key Points
➢ About:
   ○ It is a worldwide, nonprofit education program founded to give to students aged 3 to 19 the opportunity to receive an education fit for a globalizing world. Its Foundation Office is in Geneva (Switzerland).
   ○ It emphasizes personal student development as one of its main achievements.
   ○ There are four IB education programs, all of which are intended to develop students’ intellectual, emotional, personal and social skills.
   ○ It has around 5,000 schools globally. There are currently 193 IB schools in India, all of which are top-end elite private schools.
➢ Objective of IB Programmes:
   ○ Fostering critical thinking and building problem-solving skills, while encouraging diversity, international mindedness, curiosity, and a healthy appetite for learning and excellence.
➢ Benefits:
   ○ High quality programmes of education, which support development of knowledgeable and inquiring students.
   ○ Professional development that supports effective educators and collaborative professional learning communities.
   ○ Students will be able to engage with people in an increasingly globalized, rapidly changing world.

Gandhi Khel Ratna Award, the country’s highest sporting honour, after hockey wizard Major Dhyan Chand.
➢ This came a day after the Indian men’s hockey team won the bronze medal in the ongoing Tokyo Olympics and hours after the women’s team finished fourth.

Key Points
➢ About:
   ○ The Rajiv Gandhi Khel Ratna Award will hereby be called the Major Dhyan Chand Khel Ratna Award.
   • The now renamed Major Dhyan Chand Khel Ratna award comes with a cash prize of Rs 25 lakh.
   ○ Rajiv Gandhi Khel Ratna Award is the highest sporting award given by the Ministry of Youth Affairs and Sports for the spectacular and most outstanding performance in the field of sports by a sportsperson over a period of four years.
   • The award comprises a medallion, a certificate, and a cash prize of Rs 7.5 lakh.
   ○ The Khel Ratna award was instituted in 1991-1992 and the first recipient was Chess legend Viswanathan Anand. Among the other winners were Leander Paes, Sachin Tendulkar, Dhanraj Pillay, Pullela Gopichand, Abhinav Bindra, Anju Bobby George, Mary Kom and Rani Rampal in 2020.
➢ Major Dhyan Chand:
   ○ Known as The Wizard, Major Dhyan Chand, a field hockey player, played international hockey from 1926 to 1949, scoring over 400 goals in his career.
   ○ Dhyan Chand, born in Allahabad, was part of the Olympic team that won gold medals in 1928, 1932 and 1936.
   ○ Apart from the Khel Ratna award, the country’s highest award for lifetime achievement in sports is known as the Dhyan Chand Award. It was instituted in 2002.
   ○ The National Stadium in New Delhi was also renamed as the Dhyan Chand National Stadium in 2002.
   ○ The National Sports Day is observed every year across India on 29th August to mark the birth anniversary of Major Dhyan Chand who was born on 29th August 1905.
     • The President of India on this occasion honours the eminent athletes from various sports with the prestigious Khel Ratna, Arjuna Awards, Dronacharya Awards, and Dhyan Chand Award.
PM-DAKSH Scheme

Why in News

Recently, Ministry of Social Justice and Empowerment has launched ‘PM-DAKSH’ (Pradhan Mantri Dakshta Aur Kushalta Sampann Hitgrahi) Portal and ‘PM-DAKSH’ Mobile App to make the skill development schemes accessible to the target groups - Backward Classes, Scheduled Castes and Safai Karamcharis.

Key Points

- **About:**
  - PM-DAKSH Yojana is being implemented from the year 2020-21.
  - Under this, eligible target groups are provided with the skill development training programmes on Short Term Training Program; Up-Skilling/Reskilling; Entrepreneurship Development Programme, and Long Term Training Programme.
  - These training programmes are being implemented through the government training institutes, sector skill councils that have been constituted by the Ministry of Skill Development and Entrepreneurship, and other credible institutions.

- **Eligibility:**
  - Marginalized persons of **SC (Scheduled Caste), OBC (Other Backward Classes), Economically Backward Classes, Denotified tribes, Sanitation workers** including waste pickers, manual scavengers, transgenders and other similar categories.

- **Implementation:**
  - It is implemented by the three Corporations under the Ministry:
    - National Scheduled Castes Finance and Development Corporation (NSFDC),
    - National Backward Classes Finance & Development Corporation (NBCFDC),
    - National Safai Karamcharis Finance and Development Corporation (NSKFDC).

Initiatives Related to Skill Development

- **Pradhan Mantri Kaushal Vikas Yojana 3.0:** It was launched by the Ministry of Skill Development and Entrepreneurship (MSDE) in 2021 in a bid to empower India’s youth with employable skills by making over 300 skill courses available to them.

- **National Career Service Project:** Launched in 2015 to offer free online career skills training to job-seekers registered with it. It is an initiative of the Ministry of Labour & Employment.

- **Skills Acquisition and Knowledge Awareness for Livelihood (SANKALP):** Its focus is on district-level skilling ecosystem through convergence and coordination. It is a Centrally Sponsored Scheme which is collaborated with the World Bank.

- **Kaushalcharya Awards:** Launched to recognize the contribution made by skill trainers and to motivate more trainers to join the Skill India Mission.

- **Scheme for Higher Education Youth in Apprenticeship and Skills (SHREYAS):** The scheme is to provide industry apprenticeship opportunities to the general graduates exiting in April 2019 through the National Apprenticeship Promotion Scheme (NAPS). It was launched by the Ministry of Education.

- **Atmanirbhar Skilled Employee Employer Mapping (ASEEM):** Launched by MSDE in 2020, it is a portal to help skilled people find sustainable livelihood opportunities.

Delhi-Alwar RRTS Project

Why in News

The Supreme Court-Appointed Committee has permitted construction of a stretch of the proposed Delhi-Alwar **RRTS (Rapid Rail transit system)** corridor under the **Aravalli Biodiversity Park** and the extended ridge area.

Key Points

- **Committee’s Report:**
  - The committee observed that the project is in public interest and since the proposed rail corridor will run **20 metres below the ground**, trees will not have to be cut.
  - There will be no construction on the surface in the Morphological Ridge area.
  - A **ridge** or a mountain ridge is a geographical feature consisting of a chain of mountains or hills that form a continuous elevated crest for some distance.
The Aravalli ridge areas, which are essentially extensions of the Aravalli ranges and extend over 7,000 hectares in Delhi, are considered the lungs of the capital (Delhi).

**Delhi-Alwar RRTS Corridor:**
- It is a 164-km rapid rail corridor, which will be a mix of elevated tracks and tunnels. It is slated to be implemented in three phases.
- A 3.6-km stretch of the corridor is supposed to pass below the extended or ‘morphological’ ridge in South Delhi.
- 1.7-km of the 3.6-km stretch under consideration will pass below the Aravalli Biodiversity Park near Vasant Kunj, Delhi.

**Significance of Corridor:**
- **Travel Time:**
  - It is expected to reduce travel time between these places to 117 minutes – a little less than two hours.
- **Air Quality:**
  - It is expected to improve the air quality in Delhi/NCR (National Capital Region), because the share of public transport is expected to increase.
- **Ease in Road Traffic:**
  - Road traffic congestion is expected to ease with a better transport network and the project is expected to address regional connectivity issues and develop an efficient multimodal transport system connecting Delhi-NCR with road, rail and air.

**Aravalli Biodiversity Park**
- It is developed on 699 acres of land located in South Delhi near Vasant Vihar.
- The area is highly degraded due to past mining and infested with *Prosopis juliflora* (an Invasive Shrub).
- The biodiversity of Delhi is nearly extinct.
- The prime objective of ABP is to bring back the lost biodiversity of Delhi Aravallis. The other objective of ABP is to promote nature education among students and create environment awareness among the public.
- It is also helping in preserving the threatened medicinal plants of the Aravallis.

**Halam Sub-tribes Clash**

**Why in News**
People of Halam sub-tribes, who took refuge in Assam following clashes with Bru refugees in north Tripura, are returning to their village Damcherra in North district of Tripura.

- The Brus came to Tripura in 1997 to escape an ethnic clash in Mizoram and started staying at six relief camps in the North District.

**Key Points**
- **Halam Sub-tribes:**
  - Ethnically, Halam communities (categorised as a scheduled tribe in Tripura) belong to the Kuki-Chin tribes of Tibeto-Burmese ethnic group.
  - Their language is also more or less similar to that of the Tibeto-Burman family.
  - Halams are also known as Miia Kuki, though they are not at all Kukis in terms of language, culture and living style.
  - Halams are divided into several sub-clans which are referred to as “Barki-Halam”.
  - Major sub-clans of Halams are Koloi, Korbong, Kaipeng, Bong, Sakachep, Thangachep, Molsom, Rupini, Rangkhowl, Chorai, Lankai, Kaireng (Darlong), Ranglong, Marchafang and Saihmar.
  - As per 2011 Census, their total population is 57,210 and distributed throughout the State.
Halams live in typical “Tong Ghar” specially made of bamboo and Chan grass. Apart from plain land cultivation they still practice Jhum cultivation and depend on both the activities beside other substitute works.

**Bru Refugees:**

- Bru or Reang is a community indigenous to Northeast India, living mostly in Tripura, Mizoram and Assam. In Tripura, they are recognised as a Particularly Vulnerable Tribal Group.
- In Mizoram, they have been targeted by groups that do not consider them indigenous to the state.
  - In 1997, following ethnic clashes, nearly 37,000 Brus fled Mamit, Kolasib and Lunglei districts of Mizoram and were accommodated in relief camps in Tripura.
  - Damcherra is Tripura’s last village before the inter-state boundary with Mizoram.
- Since then, 5,000 have returned to Mizoram in eight phases of repatriation, while 32,000 still live in six relief camps in North Tripura.
- In June 2018, community leaders from the Bru camps signed an agreement with the Centre and the two state governments, providing for repatriation in Mizoram. But most camp residents rejected the terms of the agreement.
- In January 2020, the Centre, the governments of Mizoram and Tripura and leaders of Bru organisations signed a quadripartite agreement.
  - Under the pact, the Home Ministry has committed to incur the whole expenditure of settlement in Tripura.
  - A package was assured in the accord that each refugee family would get:
    - A plot, fixed deposit of Rs. 4 lakh, free ration and a monthly stipend of Rs. 5,000 for two years.
    - In addition, each family will also be provided Rs. 1.5 lakh to construct a house.

**Related Issues:**

- The northeast has had a history of ethnic conflicts — not only between the “indigenous” and “settlers” but inter-tribe too — and issues could also arise within smaller sub-groups within the same tribe.
- The decision to settle Bru Tribal People in Tripura could also throw up questions of citizenship, specifically in Assam where a process is on to define who is indigenous and who is not.
- The move on the Brus legitimises the settlement of foreigners under Citizenship (Amendment) Act too, creating conflicts with the indigenous people as well as communities that settled earlier.
- It could also lead to loss of space and revenue for other communities in Tripura.
- Further, the inter-state border disputes have come under fresh focus after the recent violent clash on Assam-Mizoram border.

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### World’s Highest Motorable Road at Umling La

**Why in News**

Recently, the Border Roads Organisation (BRO) has constructed and completed black topping the world’s highest motorable road at Umling La pass in Eastern Ladakh, located at an altitude of 19,300 ft.

**Key Points**

- **About the Road:**
  - By constructing this road, BRO has created a record in high-altitude road construction.
  - It bettered the previous record of a road in Bolivia connecting to its volcano Uturuncu at 18,953 ft.
  - The strategic road built under ‘Project Himank’ passes through the Umling La Top and connects Chisumle and Demchok villages.
  - It will enhance the socio-economic condition and promote tourism in Ladakh.
  - The road is close to the Line of Actual Control (LAC) and will allow quick movement of troops and equipment.

- **Comparing the Road:**
  - The road has been constructed at an altitude higher than the Mt Everest Base Camps as the South Base Camp in Nepal is at an altitude of 17,598 ft, while North Base Camp in Tibet is at 16,900 ft.
  - The road has been constructed much above the altitude of Siachen Glacier which is at 17,700 ft.
  - The Khardung La Pass in Leh is at an altitude of 17,582 ft.
Project Himank:  
- **Project Himank**, is a project of the BRO being implemented in the Ladakh region of Jammu & Kashmir.  
- This project started in 1985.  
- Under this project, BRO is responsible for the construction and maintenance of roads and related infrastructure including the world’s highest motorable roads.

<table>
<thead>
<tr>
<th>Pass</th>
<th>Link/Features</th>
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<tbody>
<tr>
<td>Barah La Pass</td>
<td>Kashmir valley with the outer Himalaya and the plains to the south.</td>
</tr>
<tr>
<td>Bara Lacha La Pass</td>
<td>Lahaul district in Himachal Pradesh with Lah district in Ladakh.</td>
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<tr>
<td>Pota La Pass</td>
<td>Leh with Kangri of Ladakh.</td>
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<tr>
<td>Naltang Pass</td>
<td>Kulu valley with the Lahaul and Spiti valleys of Himachal Pradesh.</td>
</tr>
<tr>
<td>Shipki La Pass</td>
<td>Kinnaur district of Himachal Pradesh with Autonomous Region of Tibet, China.</td>
</tr>
<tr>
<td>Jang La Pass</td>
<td>Sikkim with Autonomous Region of Tibet, China.</td>
</tr>
<tr>
<td>Nathu La Pass</td>
<td>Sikkim with Autonomous Region of Tibet, China.</td>
</tr>
<tr>
<td>Lipo Loh Pass</td>
<td>Charduar valley of India with Autonomous Region of Tibet, China. It is located close to the confluence of Uttarahand (India), China and Nepal.</td>
</tr>
<tr>
<td>Khardung La</td>
<td>Ladakh with Biochen glacier.</td>
</tr>
<tr>
<td>Bani La</td>
<td>It is in Arunachal Pradesh.</td>
</tr>
</tbody>
</table>

NIAB is an Indian autonomous research establishment of the Department of Biotechnology, Ministry of Science and Technology.

**Key Points**

- **About IndiGau:**  
  - IndiGau is purely indigenous and the largest cattle chip of the world.  
  - The Chip to achieve the goal of conservation of our own breeds with better characters and help towards doubling of farmers’ income by 2022.  
  - The manufacturing of this chip is in synergy with Rashtriya Gokul Mission and a great example of Atmanirbhar Bharat.  
  - Further, the chip exemplifies the application of scientific knowledge and innovations for “Ease of Living” for all sections of society.

- **Importance of Indigenous Breeds:**  
  - Indigenous bovines are robust and resilient and are particularly suited to the climate and environment of their respective breeding tracts and productivity of indigenous breeds is less likely to be impacted by the adversities of climate change.  
  - The milk of indigenous animals is high in fat and SNF content.

    - SNF content are the substances in milk other than butterfat and water in the form of casein, lactose, vitamins, and minerals which contribute significantly to the nutritive value of milk.

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**IndiGau**

**Why in News**

Recently, National Institute of Animal Biotechnology (NIAB), Hyderabad has launched a chip called IndiGau.

- It is India’s first Cattle Genomic Chip for the conservation of pure varieties of indigenous cattle breeds like Gir, Kankrej, Sahiwal, Ongole etc.