Table of Contents

GENERAL STUDIES – 1 ...................................... 5

Topics: Indian culture will cover the salient aspects of Art Forms, Literature and Architecture from ancient to modern times. ................................................. 5
1. Who was Subramaniy Bharathiya?................. 5
2. What is the Shankhali pi script?....................... 5

Topics: Modern Indian history from about the middle of the eighteenth century until the present- significant events, personalities, issues. ............................................ 6
1. 128th anniversary of the historic Chicago address of Swami Vivekananda: ......................... 6
2. Battle of Saragarhi: ..................................... 8
3. Raja Mahendra Pratap Singh: ........................ 8

Topics: The Freedom Struggle – its various stages and important contributors / contributions from different parts of the country. ............................... 9
1. Bhagat Singh: ........................................... 9

Topics: Population and associated issues, poverty and developmental issues. ..................................... 10
1. Swachh Survekshan Grameen 2021: .................10
2. Swachh Survekshan 2021: ..............................11

Topics: Social empowerment, communalism, regionalism & secularism ................................................. 12
1. CJI flags communal content in media ..............12

Topics: Important Geophysical phenomena such as earthquakes, Tsunami, Volcanic activity, cyclone etc., geographical features and their location- changes in critical geographical features (including water-bodies and ice-caps) and in flora and fauna and the effects of such changes. .................................................. 13
1. Impact of climate change on El Niño-Southern Oscillation: ....................................................13
2. Cyclone Gulab: ........................................14

GENERAL STUDIES – 2 .................................. 16

Topics: Indian Constitution- historical underpinnings, evolution, features, amendments, significant provisions and basic structure; Comparison of the Indian constitutional scheme with that of other countries. ....16
1. Consent of AG on Contempt Proceedings: ......16
2. Delhi High Court observations on the ‘Right to be Forgotten’: ............................................17
3. Right To Get Aid From Govt Not Fundamental Right: ......................................................17
4. Anti-defection law, for independent legislators: .................................................................18

Topics: Functions and responsibilities of the Union and the States, issues and challenges pertaining to the federal structure, devolution of powers and finances up to local levels and challenges therein. ......19
1. Multi-member ward system in Maharashtra:....19

Topics: Separation of powers between various organs dispute redressal mechanisms and institutions. ........20
1. PM CARES: ............................................ 20

Topics: Parliament and State Legislatures – structure, functioning, conduct of business, powers & privileges and issues arising out of these.......................... 21
1. Long wait for a Deputy Speaker for Lok Sabha .21
2. Citizenship (Amendment) Act, 2019......................22
3. What is the Bill to scrap NEET in Tamil Nadu?..23
4. Parliamentary Privileges: ..............................24

Topics: Salient features of the Representation of People’s Act.................................................................. 25
1. Recognition/derogation of political parties: 25

Topics: Appointment to various Constitutional posts, powers, functions and responsibilities of various Constitutional Bodies. ......................................................... 26
1. Appointment of Supreme Court Judges..............26
2. Supreme Court Collegium: ............................27
3. First woman Speaker of Gujarat Assembly: .......28

Topics: Statutory, regulatory and various quasi-judicial bodies......................................................... 29
1. About NCLT and ITAT: .................................29
5. Competition Commission of India and Cartelisation: .........................................................33
6. National Disaster Management Authority: .......34

Topics: Government policies and interventions for development in various sectors and issues arising out of their design and implementation. ........................................... 35
1. Two years since NRC draft, lakhs still in limbo..35
2. No SC, ST, OBC quota for NRIs appearing for NEET ...........................................................36
3. Assam Cattle Preservation Act, 2021.............36
4. Right to Sit to be mandated in Tamil Nadu......38
5. Model Tenancy Act: ....................................38
6. National Trust: .........................................39
7. Govt relief package for telecom sector.........40
8. State Food Safety Index (SFSI): ......................41
9. BharatNet project: .....................................41
10. Caste census: ..........................................42
11. PLI scheme for textiles works: ......................44
12. Ordnance Factory Board: ............................45
13. Section 66A of the Information Technology Act: ..........................................................46
14. Mekedatu issue: .................................................47

**Topics:** Welfare schemes for vulnerable sections of the population by the Centre and States and the performance of these schemes. ........................................48

**Topics:** Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources. .................49
  1. Nipah Virus: ..................................................49
  2. Ayush prophylactic medicines: .......................50
  5. Havana Syndrome: .......................................52
  6. Ayusman Bharat PM-JAY: .............................55
  7. Ayushman Bharat Digital Mission: ................56

**Topics:** Issues relating to poverty and hunger. ..............58
  1. Fortified Rice Kernels (FRK): ...........................58
  2. UN Food Systems Summit: .............................59

**Topics:** India and its neighbourhood- relations ......60
  1. China- Taiwan relations: ...............................60
  2. Pakistan Occupied Kashmir: .........................61

**Topics:** Bilateral, regional and global groupings and agreements involving India and/or affecting India’s interests. ................................62
  3. Concerns over Afghanistan’s membership in SAARC arise ............................................62
  4. Logistics agreements and their benefits: ..........64
  5. Recruitment of Indian citizens to work in the Portuguese Republic: ............................64
  6. 13th BRICS Summit: ......................................65
  8. SCO Peaceful Mission 2021: ...........................67

**Topics:** Effect of policies and politics of developed and developing countries on India’s interests, Indian diaspora. ..............................69
  1. China opens first road-rail transport link to Indian Ocean ................................................69
  2. India envoy in Doha meets Taliban leader ......70
  3. To contain food prices, Sri Lanka declares economic emergency ......................................71
  4. What did America achieve in Afghanistan in 20 years? ....................................................71
  5. Iran nuclear deal: ............................................73

**Topics:** Important International institutions, agencies and fora, their structure, mandate. ..................74

www.insightsonindia.com

1. Eastern Economic Forum 2021: ..........................74
2. International Fund for Agricultural Development (IFAD): ..............................................75
3. What is Quad? ..................................................75
4. WHO pre-qualification, or Emergency Use Listing (EUL): .............................................77
5. World Bank discontinues Doing Business rankings: .........................................................78
6. AUKUS Alliance: ..............................................78
7. Nuclear site images won’t be shared with IAEA: Iran: .......................................................79
8. International Criminal Court: ..........................80

**GENERAL STUDIES – 3** ........................................82

**Topics:** Indian Economy and issues relating to planning, mobilization of resources, growth, development and employment. ..................................................82
  1. T.N. announces parks for future mobility, apparels .........................................................82
  2. Overseas settlement of G-sec deals on anvil: Das .........................................................83
  3. Core sector logs 9.4% growth ........................................................................................................83
  4. Exports rose 45% in August ..........................................................84
  5. Financial Stability and Development Council (FSDC) .........................................................85
  6. What are Account Aggregators? ..................................................................................................85
  7. Jharkhand House clears Bill for 75% quota for locals .............................................................86
  8. What is Input Tax Credit (ITC)? ..................................................................................................87
  9. ‘Bad bank’ setup and guarantee programme announced by Government to clear the NPA mess: 88
  10. What is the IPO Grey Market? ..................................................................................................89

**Topics:** Government Budgeting ................................90
  1. What is government borrowing? .........................90

**Topics:** Major crops cropping patterns in various parts of the country, different types of irrigation and irrigation systems storage, transport and marketing of agricultural produce and issues and related constraints; e-technology in the aid of farmers. .................................................................91
  1. Edible Oil Prices ....................................................91

**Topics:** Issues related to direct and indirect farm subsidies and minimum support prices; Public Distribution System- objectives, functioning, limitations, revamping; issues of buffer stocks and food security; Technology missions; economics of animal-rearing. ..........................................................92
  1. Minimum support price (MSP): ..........................92
  2. How Agri Infra Fund is strengthening primary Agri Co-Op Societies? .................................92
  3. Rashtriya Gokul Mission: .....................................94

**Topics:** Effects of liberalization on the economy, changes in industrial policy and their effects on industrial growth. .................................................................95
1. Apple faces antitrust case in India over apps issue.................................................................95
2. Insolvency and Bankruptcy Code (IBC): .........................96

Topics: Infrastructure: Energy, Ports, Roads, Airports, Railways etc...........................................97
1. National Monetisation Pipeline (NMP): ......................97
2. Assam govt. unveils electric vehicle policy: ...............98
3. Privatisation of Railways: ......................................99
4. Shoonya Campaign: .............................................100

Topics: Science and Technology- developments and their applications and effects in everyday life
Achievements of Indians in science & technology; indigenization of technology and developing new technology .................................................................101
1. National Engineer’s day: .......................................101
2. Isothermal Forging Technology: ............................101
3. Global Innovation Index 2021: .................................102

Topics: Awareness in space..........................................103
1. NASA’s Perseverance rover: ..................................103
2. Inspiration4: SpaceX’s first all-civilian space mission: .........................................................103
3. Findings of Chandrayaan-2: ..................................104
4. UDAN scheme: ...................................................105
5. Gaganyaan: ..........................................................106
6. Parker Solar Probe: .............................................107
7. NASA’s VIPER Mission: .......................................108
8. Chang’e-5 probe: ..................................................109
9. What is dark energy? ............................................110
10. Landsat 9: .............................................................111

Topics: Awareness in the fields of IT, Computers, robotics, nano-technology, biotechnology and issues relating to intellectual property rights .................112
1. India’s coronavirus genome sequencing system........112
2. Mu variant of coronavirus ........................................113
3. Cryptocurrency and related issues: ........................114
4. CRISPR to control growth of mosquitoes: ...............115
5. Edible plants into vaccines: ....................................116
6. 5G technology: ....................................................117
7. Central bank digital currency (CBDC): .................119
8. Antimalarial drug resistance: .................................120

Topics: Conservation related issues, environmental pollution and degradation, environmental impact assessment ......................................................120
1. Sand and dust storms ............................................120
2. Assam wetland at risk till dumping stops: activists ....122
3. Irrawaddy Dolphin ...............................................122
4. Raptor Species ....................................................123
5. Winged visitors arrive in Pulicat ................................124
6. IUCN Red List of Threatened Species: .................124
7. Impact of fossil fuel extraction on global warming: ......125
8. Groundswell report on climate change: ..................127
9. What is Hydrogen Fuel? ........................................128
10. What is Green Hydrogen? .....................................129

www.insightsonindia.com

11. The ‘Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Rights Act)’: ........129
12. Green Bonds: ..................................................131
13. 27th Global Ozone Day: .....................................131
14. ‘Sea snout’ outbreak in Turkey: ..............................133
15. International Blue Flag Certification: .....................134
16. Beach Environment & Aesthetics Management Services (BEAMS): .............................134
17. Substitute for single-use plastics: ........................135
19. IMO urged to act on Black Carbon emissions: ........137
21. The burden of climate change on children born today: .........................................................138

Topics: Disaster and management ..................................139
1. State government report on Chennai’s flood: ...........139
2. Punjab’s desertification in 25 years: .........................141

Topics: Role of external state and non-state actors in creating challenges to internal security. .................142
1. Pakistan exploiting scope of uranium enrichment in Gilgit Baltistan: ........................................142
2. NCRB data on ‘Offences against State’: .................143
3. Assam, Mizoram border dispute: ..........................144

Topics: Challenges to internal security through communication networks, role of media and social networking sites in internal security challenges, basics of cyber security; money-laundering and its prevention .................................................................145
1. National Intelligence Grid or NATGRID: .................145
2. Naga peace process: ..........................................146
3. Unlawful Activities (Prevention) Act: .....................147

Topics: Security challenges and their management in border areas; linkages of organized crime with terrorism ......................................................148
1. MLAs forum to check outmigration from Arunachal Pradesh: ................................................148
2. Karbi Agreement: ..............................................149
3. Arakan Rohingya Salvation Army (ARSA) and Rohingya Crisis: ................................................150

FACTS FOR PRELIMS .................................152
1. Triple delight for India at Tokyo Paralympics: ........152
2. Vaccine pioneer wins Ramon Magsaysay award: ..........152
4. Ladakh adopts State animal and bird: ......................152
5. 200 Army personnel for Zapad exercise: ................152
6. High honor for Naval Aviation: ................................153
7. Indian biologist wins global award for turtle conservation: .......................................................153
8. About Turtle Survival Alliance (TSA): ......................153
9. Durand Line: ......................................................153
10. Who are Houthis? ..............................................153
11. **Places in News - Guinea:** .............................................. 153
12. **National Farmers’ Database:** ........................................... 154
13. **Manda buffalo:** .......................................................... 154
14. **Greece creates a Ministry to deal with climate crisis:** .............................. 154
15. **GST tribunal:** .............................................................. 154
16. **Chandigarh gets its first pollen calendar:** ....................................... 155
17. **Qeqertaq Avannarleq:** ................................................... 155
18. **Pradhan Mantri Gramin Digital Saksharata Abhiyan (PMGDISHA):** .............................. 155
19. **India’s first Dugong conservation reserve:** ....................................... 156
20. **Thamirabarani civilization:** .................................................. 156
21. **LCA-Mk2:** ..................................................................... 156
22. **Subansiri Hydroelectric Project (LSHP):** ....................................... 157
23. **Samvatsari:** ..................................................................... 157
24. **Climate Action and Finance Mobilization Dialogue (CAFMD):** .............................. 158
25. **T+1 settlement system:** ...................................................... 158
26. **Hindi Diwas:** .................................................................... 158
27. **Exercise PEACEFUL MISSION:** ........................................ 159
28. **Char Dham:** ..................................................................... 159
29. **EXERCISE SURYA KIRAN:** .............................................. 159
30. **World Patient Safety Day 2021:** ............................................ 159
31. **Kushinagar Airport declared as Customs Notified Airport:** .............................. 159
32. **Strophodus jaisalmerensis:** .................................................. 159
33. **Bajayant Panda Committee:** .................................................. 159
34. **Prof. S.K. Joshi Laboratory Excellence Award:** .................................... 160
35. **What is a stablecoin?:** .......................................................... 160
36. **World’s longest expressway between Delhi and Mumbai:** .............................. 160
37. **General Sherman:** .............................................................. 160
38. **Sea cucumber:** ................................................................... 160
39. **Plant Discoveries 2020:** .......................................................... 161
40. **WHO global air pollution standards:** .............................................. 161
41. **Vishnuonyx:** ...................................................................... 161
42. **Samudra Shakti:** ................................................................. 162
43. **Hybodont Shark:** ................................................................. 162
44. **Campaign launched for social accountability law:** ...................................... 162
45. **Taiwan Strait:** ..................................................................... 162
46. **Akash Prime:** ..................................................................... 162
47. **World Maritime Day:** ............................................................. 162
48. **Zojila tunnel:** ..................................................................... 163

**All New App for Insights IAS is now available for download**

[Scan to Download]

The Most Trusted Source for UPSC IAS Civil Services preparation

[www.insightsonindia.com]

**INSTA CLASSES 2022**

**A FULL-FLEDGED CLASSROOM PROGRAM FOR FRESHERS**

**UPSC CSE 2022**

DO NOT LET TODAY’S UNCERTAINTY AFFECT YOUR TOMORROW’S GOAL.

Join our time-tested and nationally-acclaimed ONLINE INSTA CLASSES to be certain amidst uncertainties. Every offline feature perfectly simulated in online mode.

WE DON’T JUST GUIDE YOU, WE EQUIP YOU.

[Subscribe Here]

Any doubt? We are just a call away, contact us on:

Bangalore: 7483163074 / 9360863034 | Delhi: 9626666123 / 7300319519 / 011-49520006 | Hyderabad: 8668518637
1. Who was Subramaniya Bharathiyar?

Context:
Vice-President recently paid homage to Subramania Bharati to mark the death centenary of the poet and freedom fighter.

About Subramaniya Bharathi:
- Born on 11th December 1882, in Ettayapuram village of Tirunelveli District in Tamil Nadu.
- He was a poet, freedom fighter and social reformer from Tamil Nadu.
- He was known as Mahakavi Bharathiyar.
- His songs on nationalism and freedom of India helped to rally the masses to support the Indian Independence Movement in Tamil Nadu.
- Literary works: “Kannan Pattu” “Nilavum Vanminum Katrum” “Panchali Sabatam” “Kuyil Pattu”.
- He published the sensational “Sudesa Geethangal” in 1908.
- Sometime in mid-1908, Bharati began to serialise Gnanaratham in his political weekly, India.
- In 1949, he became the first poet whose works were nationalised by the state government.

Bharthi as a social reformer:
- He was against caste system. He declared that there were only two castes-men and women and nothing more than that. Above all, he himself had removed his sacred thread.
- He condemned certain Shastras that denigrated women. He believed in the equality of humankind and criticised many preachers for mixing their personal prejudices while teaching the Gita and the Vedas.

Significance in Present Times:
- The poet’s definition of progress had a central role for women. He wrote women should walk with their head held high, looking people in the eye.
- The government is inspired by this vision and is working to ensure women-led empowerment.
- He believed in a healthy mix between the ancient and the modern, indicating a need to develop a scientific temper, a spirit of inquiry and march towards progress.

Insta Curious: Do you know about the Bharathi Award, instituted in 1994 by Vanavil Cultural Centre? What is the eligibility criteria? Reference:

InstaLinks:
1. Where was Bharathiyar Born?
2. Important literary works.
3. His contributions to social reforms.

Prelims Link: Mains Link: Who was Subramaniya Bharathiyar? Discuss his views on caste system.

Link: https://epaper.thehindu.com/Home/MShareArticle?OrgId=G2I8VKR7L.1&imageview=0

2. What is the Shankhalipi script?

Context:
Archeologists have found 'shankhalipi' inscriptions on the stairs on an ancient temple dating back to the Gupta period in Uttar Pradesh’s Etah district.
- The inscriptions mention ‘Sri Mahendraditya’, the title of Kumaragupta I of the Gupta dynasty.

Significance of the latest findings:
Two decorative pillars close to one another, with human figurines have been discovered at Bilsarh site. The discovery becomes significant since only two other structural temples from the Gupta age have been found so far — Dashavatara Temple (Deogarh) and Bhitargaon Temple (Kanpur Dehat).

Who was Kumaragupta I?
- In the 5th century, Kumaragupta I ruled for 40 years over north-central India.
- He was the son of the Gupta emperor Chandragupta II and queen Dhruvadevi.
- Kumaragupta performed an Ashvamedha sacrifice.
- He may have subdued the Aulikaras of central India and the Traikutakas of western India.
- The Bhitari pillar inscription states that his successor Skandagupta restored the fallen fortunes of the Gupta family.

Administration:
Kumaradeva ruled his empire through governors (Uparikas), who bore the title Maharaja ("great king"), and administered various provinces (Bhuktis).

The districts (vishayas) of the provinces were administered by district magistrates (Vishypatis), who were supported by an advisory council comprising:
1. The town president or mayor (Nagara-Shreshtin).
2. The representative of the merchant guild (Sarthavaha).
3. The chief of the artisan guild (Prathama-Kulika).
4. The chief of the guild of writers or scribes (Prathama-Kayastha).

About the Shankhalipi script:
- Shankhalipi or “shell-script” describe ornate spiral characters assumed to be Brahmi derivatives that look like conch shells or shankhas.
- They are found in inscriptions across north-central India and date to between the 4th and 8th centuries.
- The inscriptions consist of a small number of characters, suggesting that the shell inscriptions are names or auspicious symbols or a combination of the two.
- The script was discovered in 1836 on a brass trident in Uttarakhand’s Barahat by English scholar James Prinsep, who was the founding editor of the Journal of the Asiatic Society of Bengal.

Insta Curious: James Prinsep was an officer in the mint of the East India Company. His contribution considered as a major turning point in early Indian history. What were his key contributions? Reference: read [this](https://indianexpress.com/article/explained/gupta-dynasty-temple-etah-shankhalipi-inscriptions-explained-7512236/).

InstaLinks:
**Prelims Link:**
1. About Shankhalipi Script.
2. Shankhalipi script vs Brahmi script.
3. About James Prinsep.
4. About latest findings.
5. About Kumaragupta I and his administration.


Topics: Modern Indian history from about the middle of the eighteenth century until the present- significant events, personalities, issues.

1. **128th anniversary of the historic Chicago address of Swami Vivekananda:**

Context:
On September 11, 1893, Swami Vivekananda delivered his famed speech at the 'Parliament of the World’s Religions', garnering a full two minute standing ovation and the moniker of 'cyclonic monk of India'.
- This year marked the **128th anniversary of the historic Chicago Address of Swami Vivekananda**.
Significance of this event:
● The Chicago address had dwelt at length on Hinduism and Indian culture, and his words continue to remain resonant till date.
● He became popular in the western world after his famous speech at the World’s Parliament of Religions.
● He was considered a major force in the revival of Hinduism in India and bringing it to the status of major world religion in the late 19th century.
● His address in the World “Parliament of Religions” at Chicago in 1893 drew the world's attention to the ancient Indian philosophy of Vedanta.

About Swami Vivekananda:
● He was a true luminary, credited with enlightening the western world about Hinduism.
● He was an ardent disciple of Sri Ramakrishna Paramahansa and a major force in the revival of Hinduism in India.
● He pushed for national integration in colonial India, and his famous speech remains as the one that he gave in Chicago in 1893 (Parliament of the World Religions).
● In 1984 the Government of India declared that 12 January, the birthday of Swami Vivekananda, will be celebrated as National Youth Day.

Early life- contributions:
1. Born in Kolkata on January 12, 1863 in Kolkata, Swami Vivekananda was known as Narendra Nath Datta in his pre-monastic life.
2. He is known to have introduced the Hindu philosophies of Yoga and Vedanta to the West.
3. Netaji Subhas Chandra Bose had called Vivekananda the “maker of modern India.”
4. In 1893, he took the name ‘Vivekananda’ after Maharaja Ajit Singh of the Khetri State requested him to do so.
5. He formed the Ramakrishna Mission in 1897 “to set in motion a machinery which will bring noblest ideas to the doorstep of even the poorest and the meanest.”
6. In 1899, he established the Belur Math, which became his permanent abode.
7. He preached ‘neo-Vedanta’, an interpretation of Hinduism through a Western lens, and believed in combining spirituality with material progress.

Books written by him:
‘Raja Yoga’, ‘Jnana Yoga’, ‘Karma Yoga’ are some of the books he wrote.

How are Swami Vivekananda’s thoughts relevant still today?
● Swami Vivekananda, in his address, propagated the idea of tolerance and universal acceptance.
● He analysed the dangers posed by the meaningless and sectarian conflicts in society to the nations and the civilisations.
● He firmly believed that the true essence of religion was common good and tolerance. Religion should be above superstitions and rigidities.
● Swami Vivekananda believed that youngsters in India are the chain that binds our past to a greater future.
Therefore, there is greater need today, in contemporary India, to pay heed to the words spoken by Swami Vivekananda as early as in 1893.

Insta Curious: Have you heard of Sri Vedānta Desikan? What were his teachings? Reference: read this.

InstaLinks:
Prelims Link:
2. Main participants.
3. Who represented Hinduism?
5. International modern Parliaments held so far.

Mains Link: How Swami Vivekananda became the ‘messenger of Indian wisdom’ to West. Discuss.
2. Battle of Saragarhi:

September 12 marks the 124th anniversary of the Battle of Saragarhi that has inspired a host of armies, books and films, both at home and abroad.

What is the Battle of Saragarhi?
The Battle of Saragarhi was fought on 12 September 1897. It is considered one of the finest last stands in the military history of the world.

- Twenty-one soldiers from the British Army were pitted against over 8,000 Afridi and Orakzai tribals but they managed to hold the fort for seven hours.
- Though heavily outnumbered, the soldiers of 36th Sikhs platoon led by Havildar Ishar Singh, fought till their last breath, killing 200 tribals and injuring 600.

Importance of Saragarhi:

Saragarhi was the communication tower between Fort Lockhart and Fort Gulistan.

- The two forts in the rugged North West Frontier Province (NWFP), now in Pakistan, were built by Maharaja Ranjit Singh but renamed by the British.
- Saragarhi helped to link up the two important forts which housed a large number of British troops in the rugged terrain of NWFP.

The legacy:

Making a departure from the tradition of not giving gallantry medals posthumously, Queen Victoria awarded the 21 dead soldiers — leaving out the non-combatant — of the 36th Sikh the Indian Order of Merit (comparable with the Victoria Cross) along with two ‘marabas’ (50 acres) and Rs 500 each.

- The British, who regained control over the fort after a few days, used burnt bricks of Saragarhi to build an obelisk for the martyrs.
- They also commissioned gurdwaras at Amritsar and Ferozepur in their honour.

Insta Curious: Do you know about the Treaty of Gandamak, which had given the British control of Afghan foreign policy at the end of the Second Afghan War (1878-80)? Reference: read this.

InstaLinks:

Prelims Link:
1. About the battle.
2. Causes.
3. Outcomes.
4. Key participants.

3. Raja Mahendra Pratap Singh:

Context:

Prime Minister Narendra Modi recently laid the foundation stone for Raja Mahendra Pratap Singh State University in Aligarh.

- It will provide affiliation to 395 colleges of the Aligarh division.

Who was Raja Mahendra Pratap Singh?

Born in a royal family on December 1, 1886 in Hathras, Raja Mahendra Pratap Singh was a freedom fighter, social reformer and a figure representing the Jat community, predominant in Western Uttar Pradesh.

His legacy:

- In 1914, during World War I, Mahendra Pratap left India and led the German-backed first Provisional Government of India in Kabul, Afghanistan and declared himself its President while waging a war against colonial rule.
● It was around this time (1917) that Mahendra Pratap was received by Lenin and Leon Trotsky in Petrograd, in Russia.
● The British announced a bounty on his head and he fled to Japan to continue his movement.
● In 1911-12, he went off to fight in the looming Balkan War in Turkey, on the side of the Ottoman empire, along with fellow students from the Mohammedan Anglo Oriental College (MAO) college.
● In 1932, he was nominated for the Nobel Peace Prize.

His Contributions in the field of education:
Established Prem Maha Vidyalaya, a polytechnic college, in Vrindavan, which offered various courses, including carpentry, pottery and textiles under one roof.
He gave his own residence to establish the first technical school of the country.
He founded the world federation.

Political career:
1. In 1957, Mahendra Pratap contested elections as an independent and defeated former Prime Minister and Bharatiya Janata Party (BJP) stalwart Atal Bihari Vajpayee, then a Jan Sangh candidate, from Mathura in western Uttar Pradesh.
2. In 1913 he took part in Gandhi’s campaign in South Africa.
3. He travelled around the world to create awareness about the situation in Afghanistan and India.
4. In 1925 he went on a mission to Tibet and met the Dalai Lama.
5. In free India, he diligently pursued his ideal of panchayati raj.

Insta Curious: Netaji Subhash Chandra Bose had announced the establishment of the provisional government of Azad Hind in occupied Singapore in 1943. Know more about it here.

InstaLinks:
Prelims Link: 3. His political career.
Mains Link: Write a note on the legacy of Raja Mahendra Pratap Singh.


Topics: The Freedom Struggle – its various stages and important contributors /contributions from different parts of the country.

1. Bhagat Singh:
Context:
28th September is the birth anniversary of revolutionary freedom fighter Bhagat Singh.

Key facts about him:
● Bhagat Singh was born in 1907 in Lyallpur district (now in Pakistan), and grew up in a Sikh family deeply involved in political activities.
● In 1923, Bhagat Singh joined the National College, Lahore which was founded and managed by Lala Lajpat Rai and Bhai Parmanand.
● In 1924 in Kanpur, he became a member of the Hindustan Republican Association (HRA), started by Sachindranath Sanyal a year earlier.
● In 1928, HRA was renamed from Hindustan Republican Association to Hindustan Socialist Republican Association (HSRA).
● In 1925-26 Bhagat Singh and his colleagues started a militant youth organization called the Naujawan Bharat Sabha.

● In 1927, he was first arrested on charges of association with the Kakori Case accused for an article written under the pseudonym Vidrohi (Rebel).

● In 1928, Lala Lajpat Rai had led a procession to protest against the arrival of the Simon Commission. The police resorted to a brutal lathi charge, in which Lala Lajpat Rai was severely injured and later succumbed to his injuries.

● To take revenge for the death of Lala Lajpat Rai, Bhagat Singh and his associates plotted the assassination of James A. Scott, the Superintendent of Police.

● However, the revolutionaries mistakenly killed J.P. Saunders. The incident is famously known as Lahore Conspiracy case (1929).

● Bhagat Singh and B.K. Dutt threw a bomb on 8 April, 1929 in the Central Legislative Assembly, in protest against the passing of two repressive bills, the Public Safety Bill and the Trade Dispute Bill.

● The aim was not to kill but to make the deaf hear, and to remind the foreign government of its callous exploitation.

Trial:
Both Bhagat Singh and B.K. Dutt surrendered thereafter and faced trial so they could further promote their cause. They were awarded life imprisonment for this incident.

● However, Bhagat Singh was re-arrested for the murder of J.P. Saunders and bomb manufacturing in the Lahore Conspiracy case.

● He was found guilty in this case and was hanged on 23rd March, 1931 in Lahore along with Sukhdev and Rajguru.

● Every year, March 23 is observed as Martyrs’ Day as a tribute to freedom fighters Bhagat Singh, Sukhdev, and Rajguru.

InstaLinks:
2. HSRA.
5. Lahore Conspiracy case.

Mains Link: A revolutionary and a socialist, the contribution of Bhagat Singh to the Independence Movement of India is immense. Discuss.

**Topics: Population and associated issues, poverty and developmental issues.**

1. Swachh Survekshan Grameen 2021:

Context:
Swachh Survekshan Grameen, 2021 will be launched under the Swachh Bharat Mission Phase-2 on 9th September, 2021.

● **It aims to** support acceleration of ODF plus interventions and results in the country.

● An expert agency has been hired to conduct the Survekshan 2021.

● As part of the Survekshan, Villages, Districts and States would be ranked using key parameters.

Coverage:

● As part of Swachh Survekshan Grameen, **17,475 villages in 698 Districts across the country** will be covered.

● 87,250 public places namely schools, anganwadis, public health centres, haat/bazaars/religious places in these villages will be visited for survey.

● **Around 1,74,750 Households will be interviewed** for their feedback on SBM related issues.

● Also, citizens will be mobilised to provide feedback on sanitation related issues online using an application developed for the purpose.

Background:
Commissioned by the Department of Drinking Water and Sanitation (DDWS) under the Ministry of Jal Shakti.

- SSG is not just a ranking exercise but has been a vehicle for creating a Janandolan (people's movement).
- A detailed protocol has been developed to guide the ranking of Districts based on their performance on key quality and quantitative parameters.

The weights to different elements of the SSG 2021 are as below:

- **Direct Observation** of sanitation at public places -30%
- **Citizen's Feedback**, including feedback from common citizens, key influencers at the village level and from citizens online using a mobile App -35%
- **Service Level Progress** on sanitation related parameters -35%

**Insta Curious**: Did you know that the Swachh Bharat Mission is being executed by two different ministries? Which are those? Reference: read this.

**InstaLinks:**

**Prelims Link:**
1. What is Swachh Survekshan? When was the first survey conducted?
2. Top performers in the latest survey.

**Mains Link:** Write a note on swachh bharat Mission.

### 2. Swachh Survekshan 2021:

**Context:**
The Ministry of Housing and Urban Affairs (MoHUA) has launched the seventh consecutive edition of Swachh Survekshan (SS), the world’s largest urban cleanliness survey conducted by Swachh Bharat Mission-Urban (SBM-U).

**What’s new in the seventh edition?**

1. Designed with ‘People First’ as its driving philosophy, Swachh Survekshan 2022 is curated towards capturing the initiatives of cities for the overall welfare and well-being of frontline sanitation workers.
2. The survey, flavoured with the Azadi@75 spirit, will also give priority to the voices of senior citizens and young adults alike and reinforce their participation towards upholding the cleanliness of urban India.
3. SS 2022 has incorporated specific indicators that drive cities to improve working conditions and livelihood opportunities for sanitation workers in urban India’s sanitation journey.
4. The survey is set to protect India’s ancient legacy and culture by nudging citizens to take ownership and initiative to clean urban India’s monuments and heritage spots.
5. This year’s Survekshan is committed to creating a level playing field for smaller cities by introducing two population categories under 15K and between 15-25K.
6. To further expand the Survekshan footprint, district rankings have been introduced for the first time.
7. The scope of the survey has been expanded to now cover 100% wards for sampling, as compared to 40% in previous years.

www.insightsonindia.com
What is Swachh Survekshan?
- Launched by PM Modi in 2016.
- It is meant to monitor the performance of Swachh Bharat Abhiyan, which was launched on October 2, 2014, the 150th birth anniversary of Mahatma Gandhi.
- It was also aimed at inculcating a spirit of healthy competition among cities towards becoming India’s cleanest cities.

Who conducts the survey?
The Quality Council of India (QCI) is in charge of evaluating the performance of the participating cities. This is an autonomous accreditation body which was set up by the Government of India in 1997 for quality assurance in all fields, including governance.

Insta Curious: The Union Housing and Urban Affairs Ministry has announced the results of garbage-free star ratings for the cities. Know more about it here.

InstaLinks:
Prelims Link:
1. What is Swachh Survekshan? When was the first survey conducted?
2. Top performers in the latest survey.
3. About Swachh Basharat Abhiyan.
4. About the Quality Council of India.

Topics: Social empowerment, communalism, regionalism & secularism.

1. CJI flags communal content in media
Context: Observation made by Chief Justice of India (CJI) while adjudicating on a case relating to communalization of some sections of media in the country

More on this news
- The petition before the SC drew the court’s attention on how some sections of media linked Tablighi Jamaat to the spread of Covid-19
- Such cases of communalized reporting are increasing in the country in recent times. Ex: UPSC Jihad, Hadiya case, Triple Talaq case etc
- The court also lamented about the lack of adequate accountability to hold social media and over the top content platforms for their actions
- The government highlighted the recent steps it had taken to ensure accountability in this regard. That is - Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021 and Cable Television Networks (Amendment) Rules of 2021.

About Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021
1. It mandates a grievance redressal system for over the top (OTT) and digital portals in the country. This is necessary for the users of social media to raise their grievance against the misuse of social media.
2. Significant social media firms have to appoint a chief compliance officer and have a nodal contact person who can be in touch with law enforcement agencies 24/7.
3. A grievance officer: Social media platforms will also have to name a grievance officer who shall register the grievance within 24 hours and dispose of it in 15 days.
4. Removal of content: If there are complaints against the dignity of users, particularly women – about exposed private parts of individuals or nudity or sexual act or impersonation etc – social media platforms will be required to remove that within 24 hours after a complaint is made.
5. A monthly report: They also will have to publish a monthly report about the number of complaints received and the status of redressal.
6. There will be three levels of regulation for news publishers — self-regulation, a self-regulatory body, headed by a retired judge or an eminent person, and oversight from the Information and Broadcasting Ministry, including codes of practices and a grievance committee.

About Cable Television Networks (Amendment) Rules, 2021
1. It provides for a three-level grievance redressal mechanism — self-regulation by broadcasters, self-regulation by the self-regulating bodies of the broadcasters, and oversight by an Inter-Departmental Committee at the level of the Union government.

2. Procedure for grievance redressal:
   1) A viewer can file a complaint directly to the broadcaster, who will have to respond within 15 days.
   2) If the complainant is not satisfied with the response, the complaint can be escalated to the self-regulating bodies set up by TV channels, which should deal with the case in 60 days.
   3) If the complainant is not satisfied with the decision of the self-regulating body, he may, within 15 days of such decision, prefer an appeal to the Central Government for its consideration under the Oversight Mechanism.
   4) Such appeals will be dealt with by the Inter-Departmental Committee set up under the Oversight Mechanism.

3. The committee will be headed by the Additional Secretary in the Ministry of Information and Broadcasting, and have members from various ministries.


Prelims link
1. What is communalization?
2. About Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021 and Cable

Mains link: Measures taken to tackle communalization of media

Source: The Hindu

Topics: Important Geophysical phenomena such as earthquakes, Tsunami, Volcanic activity, cyclone etc., geographical features and their location- changes in critical geographical features (including water-bodies and ice-caps) and in flora and fauna and the effects of such changes.

1. Impact of climate change on El Niño-Southern Oscillation:

Context: There is a growing body of research suggesting that climate change can cause extreme and more frequent El Niño and La Niña events.

- A study was conducted recently on this using one of South Korea’s fastest supercomputers, Aleph.

Findings of the latest study:
1. Increasing atmospheric carbon dioxide can cause a “weakening of future simulated ENSO sea surface temperature variability.”
2. Future El Niño events will lose heat to the atmosphere more quickly due to the evaporation of water vapour.
3. In the future there will be a reduced temperature difference between the eastern and western tropical Pacific, inhibiting the development of temperature extremes during the ENSO cycle.
4. Also, there can be a weakening of tropical instability waves in the projected future, which can cause a disruption of the La Niña event.

What are the Niño and La Niña?
They are two natural climate phenomena occurring across the tropical Pacific Ocean and influence the weather conditions all over the world.

- While the El Niño period is characterised by warming or increased sea surface temperatures in the central and eastern tropical Pacific Ocean, a La Niña event causes the water in the eastern Pacific Ocean to be colder than usual.
• Together, they are called ENSO or El Niño-Southern Oscillation.

What causes El Nino?
1. El Nino sets in when there is an anomaly in the pattern.
2. The westward-blowing trade winds weaken along the Equator and due to changes in air pressure, the surface water moves eastwards to the coast of northern South America.
3. The central and eastern Pacific regions warm up for over six months and result in an El Nino condition.


InstaLinks:

Prelims Link:
1. What is El Nino?
2. What is La Nina?
3. What is ENSO?
4. When do these events occur?

Mains Link: Discuss the impact of La Nina weather phenomenon on India.


2. Cyclone Gulab:
Context:
Cyclone ‘Gulab’ is likely to hit east coast of India. It is formed in the Bay of Bengal Region.

The name was given by?
• Gulab was suggested by Pakistan.

How are cyclones formed?
Cyclones are formed over the oceanic water in the tropical region. In this region, the sunlight is highest which results in warming of land and water surface. Due to warming of the surface, the warm moist air over the ocean rises upwards following which cool air rushes in to fill the void, they too get warm and rise — the cycle continues.

But what creates the spin?
Wind always blows from high pressure to low pressure areas. High pressure areas are created in the cold region while low is created in the warm regions. Polar regions are high pressure areas as the amount of sunlight here is less than the tropical region. So, wind blows from polar regions to tropical regions.

• Then comes the Earth’s movement, which is west to east. The Earth’s rotation on its axis causes deflection of the wind (in the tropical region as the speed of spinning of Earth is higher compared to polar sides due to its spherical shape — blowing from both the polar regions. Wind coming from the Arctic is deflected to the right while Antarctic wind deflects to the left side.
• So, wind is already blowing in a direction. But when it reaches the warmer place, cool air starts getting attracted to the centre to fill the gap. So while moving to the centre, cool air keeps getting deflected resulting in circulation of wind movement — this process continues until the cyclone hits the land.
What happens when a cyclone hits the land?
Cyclone dissipates when it hits the land as the warm water that rises and creates space for cool water is no longer available on land. Also, the moist air that rises up forms clouds leading to rains that accompany gusting winds during cyclones.

Insta Curious: The World Meteorological Organisation (WMO) maintains rotating lists of names. But, how are cyclones named? Read this.

InstaLinks:
Prelims Link:
1. Factors responsible for the genesis of cyclones.
2. Naming of cyclones in various regions of the world.

Mains Link: Discuss the factors responsible for the formation of tropical cyclones.
1. Consent of AG on Contempt Proceedings:

Context:
The Attorney General for India, K.K.Venugopal, has granted his consent to a lawyer for initiating contempt proceedings against the author of a YouTube video for allegedly making derogatory remarks against the judiciary in general, and the Supreme Court in particular.

- Consent has been given under Section 15 of the Contempt of Courts Act, 1971 read with Rule 3(c) of the Rules to Regulate Proceedings for Contempt of the Supreme Court, 1975.

Background:
The allegations made by Bharti against the Supreme Court are, among other things, of bribery, favouritism, nepotism and abuse of power.

What is the law on contempt of courts?
The Contempt of Courts Act 1971 defines civil and criminal contempt, and lays down the powers and procedures by which courts can penalise contempt, as well as the penalties that can be given for the offence of contempt.

- Contempt of court is the offense of being disobedient to or disrespectful toward a court of law and its officers in the form of behavior that opposes or defies the authority, justice and dignity of the court.

Why is the consent of the Attorney General required to initiate contempt proceedings?
The objective behind requiring the consent of the Attorney General before taking cognizance of a complaint is to save the time of the court.

- This is necessary because judicial time is squandered if frivolous petitions are made and the court is the first forum for bringing them in.
- The AG’s consent is meant to be a safeguard against frivolous petitions, as it is deemed that the AG, as an officer of the court, will independently ascertain whether the complaint is indeed valid.

Under what circumstances is the AG’s consent not needed?
The AG’s consent is mandatory when a private citizen wants to initiate a case of contempt of court against a person.

However, when the court itself initiates a contempt of court case the AG’s consent is not required.

- This is because the court is exercising its inherent powers under the Constitution to punish for contempt and such Constitutional powers cannot be restricted because the AG declined to grant consent.

What happens if the AG denies consent?
If the AG denies consent, the matter all but ends.

The complainant can, however, separately bring the issue to the notice of the court and urge the court to take suo motu cognizance.

- Article 129 of the Constitution gives the Supreme Court the power to initiate contempt cases on its own, independent of the motion brought before it by the AG or with the consent of the AG.

Insta Curious: Civil contempt refers to the wilful disobedience of an order of any court. How is it different from Criminal Contempt? Reference: read this.

Insta Link:
Prelims Link:
1. Powers of SC vs HCs wrt Contempt cases.
2. Constitutional provisions in this regard.

4. Civil vs Criminal contempt.
5. Rights under Article 19.
6. Section 10 of The Contempt of Courts Act of 1971 is related to? 

**Mains Link:** Discuss how contempt cases are handled by Supreme Court in India.

### 2. Delhi High Court observations on the ‘Right to be Forgotten’:

**Context:**
Last week, the Delhi High Court upheld the view that the “Right to Privacy” includes the “A” and the “Right to be Left Alone”.
- The court said this in an order passed in response to a suit filed by an unnamed Bengali actor.

**Background:**
Earlier in July, Ashutosh Kaushik who won reality TV shows Bigg Boss in 2008 and MTV Roadies 5.0 approached the Delhi High Court with a plea saying that his videos, photographs and articles etc. be removed from the internet citing his “Right to be Forgotten”.

**What is the ‘Right to be Forgotten’ in the Indian context?**
- The Right to be Forgotten falls under the purview of an individual’s right to privacy, which is governed by the [Personal Data Protection Bill](https://www.google.com/amp/s/indianexpress.com/article/explained/delhi-high-court-right-to-be-forgotten-7473661/lite/) that is yet to be passed by Parliament.
- In 2017, the Right to Privacy was declared a fundamental right (under Article 21) by the Supreme Court in its landmark verdict (Puttuswamy case).
- The court said at the time that “the right to privacy is protected as an intrinsic part of the right to life and personal liberty under Article 21 and as a part of the freedoms guaranteed by Part III of the Constitution”.

**What does the Personal Data Protection Bill say about this?**
Right to privacy is also governed by the [Personal Data Protection Bill](https://www.google.com/amp/s/indianexpress.com/article/explained/delhi-high-court-right-to-be-forgotten-7473661/lite/) that is yet to be passed by Parliament. The bill exclusively talks about the “Right to be Forgotten.”
- Broadly, under the Right to be forgotten, users can de-link, limit, delete or correct the disclosure of their personal information held by data fiduciaries.

**But, what are the issues associated with this provision in the Bill?**
The main issue with the provision is that the sensitivity of the personal data and information cannot be determined independently by the person concerned, but will be overseen by the [Data Protection Authority](https://www.google.com/amp/s/indianexpress.com/article/explained/delhi-high-court-right-to-be-forgotten-7473661/lite/) (DPA).
- This means that while the draft bill gives some provisions under which a user can seek that his data be removed, but his or her rights are subject to authorisation by the Adjudicating Officer who works for the DPA.

**Insta Curious:** On one hand, Article 21 paves the way for the right to be forgotten to be read into the Constitution, on the other hand, Article 19 stands as a hindrance. How? [Reference](https://www.google.com/amp/s/indianexpress.com/article/explained/delhi-high-court-right-to-be-forgotten-7473661/lite/)

**InstaLinks:**
- 1. About the Right to be forgotten.
- 2. What is right to privacy?

**Mains Link:** Discuss the significance of the right to be forgotten.


### 3. Right To Get Aid From Govt Not Fundamental Right:

**Context:**
The Supreme Court has held that the government aid to an institution is a matter of policy and it is not a fundamental right.

What’s the case?
The judgment came on an appeal filed by the Uttar Pradesh’ government challenging the 2018 Allahabad High Court verdict holding that a regulation framed under The Intermediate Education Act, 1921 is unconstitutional. The apex court set aside the HC verdict.

**Important observations made by the Court:**

1. Grant of aid brings with it conditions which the institution receiving it is bound to comply with. If an institution does not want to accept the conditions, it can decline the grant but cannot say that the grant must be on its own terms.
2. A decision to grant aid is by way of policy. While doing so, the government is not only concerned with the interest of the institutions but the ability to undertake such an exercise.
3. As regards aided institutions, there cannot be any difference between a minority and non-minority one. Article 30 of the Constitution of India is subject to its own restrictions being reasonable.

**Constitutional Provisions regarding Minority Educational Institutions:**

**Article 30(1)** recognizes linguistic and religious minorities but not those based on race, ethnicity.

- It recognizes the right of religious and linguistic minorities to establish and administer educational institutions, in effect recognizing the role educational institutions play in preserving distinct culture.
- A majority community can also establish and administer educational institutions but they will not enjoy special rights under Article 30(1)(a).

Special rights enjoyed by religious minority institutions are:

1. Under Art 30(1)(a), MEI enjoy right to education as a Fundamental Right. In case the property is taken over by state, due compensation to be provided to establish institutions elsewhere
2. Under Article 15(5), MEIs are not considered for reservation
3. Under Right to Education Act, MEI not required to provide admission to children in the age group of 6-14 years upto 25% of enrolment reserved for economically backward section of society
4. In St Stephens vs Delhi University case, 1992, SC ruled that MEIs can have 50% seats reserved for minorities
5. In TMA Pai & others vs State of Karnataka & others 2002 case, SC ruled that MEIs can have separate admission process which is fair, transparent and merit based. They can also separate fee structure but should not charge capitation fee.

**Insta Curious:** Did you know that all minorities, whether based on religion or language, shall have the right to establish and administer educational institutions of their choice? Reference: read this.

**InstaLinks:**

**Prelims Link:**

1. Various rights available for MEIs.
2. Rights of Minority vs other institutions.
3. Can states interfere in their internal matters?
4. What is NEET?

**Mains Link:** Write a note on constitutional rights conferred upon minority educational institutions in India.

4. **Anti-defection law, for independent legislators:**

**Context:**
Independent MLA from Gujarat's Vadgam constituency, Jignesh Mevani, has pledged support to the Congress party, saying though he has not formally joined the Congress, he has joined the party's ideology. Hence, provisions of the Tenth Schedule do not apply in this case.

**Relevance:** the Tenth Schedule of the Indian Constitution:
Popularly known as the anti-defection law.

- It specifies the circumstances under which changing of political parties by legislators invites action under the law.
- It was added to the Constitution by the 52nd Amendment Act.
- It includes situations in which an independent MLA, too, joins a party after the election.
The law covers three scenarios with respect to shifting of political parties by an MP or an MLA. These include:

1. When a member elected on the ticket of a political party “voluntarily gives up” membership of such a party or votes in the House against the wishes of the party.
2. When a legislator who has won his or her seat as an independent candidate joins a political party after the election.

In the above two cases, the legislator loses the seat in the legislature on changing (or joining) a party.

3. Relates to nominated MPs. In their case, the law gives them six months to join a political party, after being nominated. If they join a party after such time, they stand to lose their seat in the House.

**Matters related to disqualification:**

- Under the anti-defection law, the power to decide the disqualification of an MP or MLA rests with the presiding officer of the legislature.
- **The law does not specify a time frame** in which such a decision has to be made.
- Last year, the Supreme Court observed that anti-defection cases should be decided by Speakers in three months’ time.

However, **Legislators may change their party without the risk of disqualification in certain circumstances.**

**Exceptions:**

1. The law allows a party to merge with or into another party provided that at least two-thirds of its legislators are in favour of the merger.
2. On being elected as the presiding officer of the House, if a member, voluntarily gives up the membership of his party or rejoins it after he ceases to hold that office, he won’t be disqualified.

**Insta Curious:** Did you know that the initial attempts at creating the anti-defection law (1969, 1973) did not cover independent legislators joining political parties? Then, when were they included under the law? Have a brief overview about it [here](#).

**InstaLinks:**

**Prelims Link:**

1. Names of various committees and commissions with regard to Anti Defection law.
2. Committees vs Commissions.

**Mains Link:** Examine the provisions of Anti-defection law. Has this law largely failed to meet its objective? Discuss.

**Topics:** Functions and responsibilities of the Union and the States, issues and challenges pertaining to the federal structure, devolution of powers and finances up to local levels and challenges therein.

**1. Multi-member ward system in Maharashtra:**

**Context:**

The Maharashtra cabinet recently cleared a plan for multi-member wards in urban civic bodies, excluding Mumbai.

- With this, the state has reverted to the system of electing multiple councillors or corporators from every ward in all municipal corporations and municipal councils in the state, excluding Mumbai.
- The state government will promulgate an ordinance to make the amendment.

**What’s proposed in Maharashtra?**

In the new system, voters will elect a three-member panel in each of the wards in municipal corporation areas.

- In municipal council areas, voters will elect a panel of two members.
In a single-member ward system, a voter votes for one candidate. **There will be no change in the number of wards or corporators;** the wards will be bunched together only for the purpose of the election.

**How does it work?**
Those contesting from the same party or alliance across the designated multi-member ward will campaign across the two or three wards, although they will file their nomination from individual wards.

- **If elected, each will represent the individual ward only.** Voters, however, will be able to select candidates in their own ward as well as in the other wards clubbed together in the multi-member ward.
- Although candidates from the same party/alliance in a multi-member ward will be called a “panel”, a voter does not really select a panel, but individual candidates, who can be from the same party or from different parties.
- A voter is also entitled to select just one candidate. But for this, the voter has to make a written submission to the presiding officer of the booth. This is to ensure documentary proof in case a party or candidate goes to court questioning how a candidate got fewer votes than others.

**Benefits associated with multi-member system:**
- It appears to help a party or alliance maximise its seats.
- A party can offset weak candidates with strong ones in a multi-member ward.
- The hope is that the strongest of the candidates will carry the day for the others in the “panel”, even though this is not guaranteed.

**Issues and concerns associated:**
Usually, in a multiple-member ward, no corporator allows the others to work properly and all try to outdo one another.

**Insta Curious:** Have you heard about the Municipal Performance Index? Read about it [here](https://indianexpress.com/article/explained/maharashtra-civic-polls-how-multi-member-ward-system-works-7530535/).

**Topics: Separation of powers between various organs dispute redressal mechanisms and institutions.**

**1. PM CARES:**

**Context:**
Recently, the Central government informed the Delhi High Court that the PM CARES Fund is “not a fund of Government of India and the amount does not go in the Consolidated Fund of India”.

**Background:**
The Centre’s affidavit came in response to a petition filed before the high court seeking to declare PM CARES as a ‘public authority’ under the *[Right to Information (RTI) Act]*.

**What has the government said?**
Irrespective of whether the trust is a “State” or other authority within the meaning of Article 12 of the Constitution of India and or whether it is a ‘public authority’ within the meaning of section 2[h] of Right to Information Act, Section 8 in general and that of provisions contained in sub section [e] and [j], in particular, of the Right to Information Act, it is not permissible to disclose third party information.

- And, to ensure transparency, the audited report is put on the official website of the trust along with the details of utilisation of funds received by the trust.

**About PM-CARES:**
The Prime Minister’s Citizen Assistance and Relief in Emergency Situations (PM-CARES) Fund was set up to accept donations and provide relief during the Covid-19 pandemic, and other similar emergencies.
PM-CARES Fund:
- PM-CARES was set up as a public charitable trust with the trust deed registered on March 27, 2020.
- It can avail donations from the foreign contribution and donations to fund can also avail 100% tax exemption.
- PM-CARES is different from the Prime Minister’s National Relief Fund (PMNRF).

Who administers the fund?
Prime Minister is the ex-officio Chairman of the PM CARES Fund and Minister of Defence, Minister of Home Affairs and Minister of Finance, Government of India are ex-officio Trustees of the Fund.


InstaLinks:

Prelims Link:
1. What is a public account?
2. Who administers PM CARES fund?
3. Which organisations are exempted from the ambit of RTI act?

Mains Link: Discuss why PM CARES fund should be brought within the ambit of RTI act?

Topics: Parliament and State Legislatures – structure, functioning, conduct of business, powers & privileges and issues arising out of these.

1. Long wait for a Deputy Speaker for Lok Sabha
Context: Post of Deputy-speaker in Lok Sabha (LS) still remains vacant

More on this news:
- Delhi High Court directed the central government to explain its stand over the issue of not holding elections to the post of Deputy Speaker of LS. The position has remained vacant for last 830 days
- Keeping the post of deputy speaker vacant is a violation of Article 93 of the Indian constitution.
- A Deputy Speaker enjoys the same legislative powers as the Speaker. And in absence of the Speaker because of death, illness or any other reason, the Deputy Speaker also assumes the administrative powers.
- The responsibility to elect a Deputy Speaker is the responsibility of the House
- By parliamentary convention in recent times, the post of Deputy-Speaker usually went to a member from the major opposition party in the house.
- The delay in electing a Deputy Speaker has been attributed to lack of opposition strength of elect a candidate of their choice, lackadaisical attitude of the present central government to nominate a suitable candidate to the post
- Currently, when Speaker is not preceding over the house, a member from the panel of Chairperson precede over the house
- There is a constitution-mandated panel of 10 members to preside over the proceedings of the Lok Sabha in the absence of Speaker.

About Deputy Speaker:
- Article 93 of the Constitution provides for the election of both the Speaker and the Deputy Speaker.
- The constitutional office of the Deputy Speaker of the Lok Sabha is more symbolic of parliamentary democracy than some real authority.
- There is no need to resign from their original party though as a Deputy Speaker, they have to remain impartial.

Roles and functions: They act as the presiding officer in case of leave or absence caused by death or illness of the Speaker of the Lok Sabha.

Election:
• Usually, the Deputy Speaker is elected in the first meeting of the Lok Sabha after the General elections from amongst the members of the Lok Sabha.
• It is by convention that position of Deputy Speaker is offered to opposition party in India.

Tenure and removal:
• They hold office until either they cease to be a member of the Lok Sabha or they resign.
• They can be removed from office by a resolution passed in the Lok Sabha by an effective majority of its members.

Insta-curious: How is a speaker elected? Click here

InstaLinks:
Preblems Link:
1. Constitutional provisions related to the office of Deputy Speaker.
2. Roles and functions.

Mains Link: The constitutional office of the Deputy Speaker of the Lok Sabha is more symbolic of parliamentary democracy than some real authority. Discuss.

Source: The Hindu

2. Citizenship (Amendment) Act, 2019:

Context:
The Tamil Nadu Assembly has adopted a resolution urging the Centre to repeal the Citizenship (Amendment) Act, 2019. With this, Tamil Nadu has joined states like Kerala and West Bengal in passing resolutions against CAA.

Reason: The state said the law is not in tune with the secular principles laid down in our Constitution and also not conducive to the communal harmony that prevails in India.

Background:
The Citizenship (Amendment) Act, 2019 (CAA) was notified on December 12, 2019 and came into force from January 10, 2020.

It seeks to amend the Citizenship Act, 1955.
• The Citizenship Act, 1955 provides various ways in which citizenship may be acquired.
• It provides for citizenship by birth, descent, registration, naturalisation and by incorporation of the territory into India.

About CAA:
• The objective of the CAA is to grant Indian citizenship to persecuted minorities -- Hindu, Sikh, Jain, Buddhist, Parsi and Christian -- from Pakistan, Bangladesh and Afghanistan.
• Those from these communities who had come to India till December 31, 2014, facing religious persecution in their respective countries, will not be treated as illegal immigrants but given Indian citizenship.
• The Act provides that the central government may cancel the registration of OCIs on certain grounds.

Exceptions:
• The Act does not apply to tribal areas of Tripura, Mizoram, Assam and Meghalaya because of being included in the 6th Schedule of the Constitution.
• Also areas that fall under the Inner Limit notified under the Bengal Eastern Frontier Regulation, 1873, will also be outside the Act's purview.

Issues surrounding the law:
www.insightsonindia.com
It violates the basic tenets of the Constitution. Illegal immigrants are distinguished on the basis of religion.

- It is perceived to be a demographic threat to indigenous communities.
- It makes illegal migrants eligible for citizenship on the basis of religion. This may violate Article 14 of the Constitution which guarantees the right to equality.
- It attempts to naturalise the citizenship of illegal immigrants in the region.
- It allows cancellation of OCI registration for violation of any law. This is a wide ground that may cover a range of violations, including minor offences.

**Insta Curious:** How NRC is different from CAA? Are there any similarities between the two? [Reference]

**InstaLinks:**
**Prelims Link:** 1. About CAA. 2. Features. 3. Religions covered. 4. Countries Covered. 5. Exceptions.

**Mains Link:** Discuss the issues surrounding the implementation of CAA.

Link: [https://epaper.thehindu.com/Home/MShareArticle?OrgId=G438VA99I.1&imageview=0](https://epaper.thehindu.com/Home/MShareArticle?OrgId=G438VA99I.1&imageview=0)

### 3. What is the Bill to scrap NEET in Tamil Nadu?

**Context:** The Tamil Nadu Assembly has passed a Bill to dispense with [the National Entrance cum Eligibility Test (NEET)].

**Why the bill to scrap NEET?**
The Assembly has passed this Bill based on the recommendation of the high-level committee led by retired judge AK Rajan.

- The bill will allow admission to medical courses based on Class 12 marks to “ensure social justice”.
- The state assembly says the National Eligibility-cum-Entrance Test is not a fair or equitable method of admission since it favoured the rich and elite sections of society who can afford coaching.

**Background:**
The National Eligibility Entrance Test (NEET), formerly the All India Pre-Medical Test (AIPMT), is the qualifying test for MBBS and BDS programmes in Indian medical and dental colleges. It is conducted by [the National Testing Agency (NTA)].

**Arguments against NEET:**
1. NEET 'undermined the diverse societal representation' in MBBS and higher medical studies, favouring mainly the affluent class.
2. Social groups most affected were the students of Tamil medium, having a rural background of government schools, those having a parental income of less than Rs 2.5 lakh per annum.
3. If NEET continued, the health care system of the state would be severely affected and there may not be enough doctors for Primary Health Centres or state-run hospitals.

**Challenges ahead:**
- Since it challenges a central law, it cannot come into force until and unless approved by the President of India.

**Can states refuse to implement Central laws?**
- Usually, when a state wants to amend a Central law made under one of the items in the concurrent list, it needs the clearance of the Centre.
- When a state law contradicts a Central law on the same subject, the law passed by Parliament prevails.

**Why has the Constitution envisaged such an arrangement?**

[www.insightsonindia.com](http://www.insightsonindia.com)
This is an arrangement envisaged as most Parliament laws apply to the whole of India and states amending the Central laws indiscriminately could lead to inconsistencies in different regions on the application of the same law. In matters of trade and commerce, this could especially pose serious problems.

The other options available with the states are:
To take the Centre to the Supreme Court over the validity of these laws.

- Article 131 of the Constitution provides exclusive jurisdiction to the Supreme Court to adjudicate matters between the states and the Centre.
- Article 254 (2) of the Constitution empowers state governments to pass legislations which negate the Central acts in the matters enumerated under the Concurrent List.
  - A state legislation passed under Article 254 (2) requires the assent of the President of India.

Insta Curious: Education, including technical education, medical education and universities, subject to the provisions of entries 63, 64, 65 and 66 of List I; vocational and technical training of labour. Know more about 7th Schedule here.

InstaLinks:

Prelims Link:
1. Articles 131 and 254(2).


3. What happens when a State’s law contravenes centre’s law?

Mains Link: The three agriculture laws passed by the Centre recently are a clear infringement on the states’ right to legislate. Discuss.

4. Parliamentary Privileges:

Context:
Vice-President and Rajya Sabha Chairman M Venkaiah Naidu has said that disrupting parliamentary proceedings amounts to contempt of the House and it cannot be claimed as a privilege.

- This is the first time that a presiding officer of any legislature in the country has taken a public position on the issue of disruptions in the Parliament.

Productivity of Rajya Sabha:

- The productivity of Rajya Sabha has been quantified since 1978. During the first 19 years till 1996, the productivity of the House has been over 100 per cent, but it has begun to decline since then.
- While the House clocked an annual productivity of over 100 per cent during 16 out of these 19 years, it was so only in two years — in 1998 and 2009 — that it clocked 100 percent productivity in the preceding 24 years. Rajya Sabha has not clocked 100 percent productivity even once in the past 12 years.

What are Parliamentary Privileges?
Parliamentary Privileges are certain rights and immunities enjoyed by members of Parliament, individually and collectively, so that they can “effectively discharge their functions”.

1. Article 105 of the Constitution expressly mentions two privileges, that is, freedom of speech in Parliament and right of publication of its proceedings.

2. Apart from the privileges as specified in the Constitution, the Code of Civil Procedure, 1908, provides for freedom from arrest and detention of members under civil process during the continuance of the meeting of the House or of a committee thereof and forty days before its commencement and forty days after its conclusion.

Motion against breaches:
When any of these rights and immunities are disregarded, the offence is called a breach of privilege and is punishable under law of Parliament.

- A notice is moved in the form of a motion by any member of either House against those being held guilty of breach of privilege.
Role of the Speaker/Rajya Sabha (RS) Chairperson:
The Speaker/RS chairperson is the first level of scrutiny of a privilege motion. The Speaker/Chair can decide on the privilege motion himself or herself or refer it to the privileges committee of Parliament.
- If the Speaker/Chair gives consent under relevant rules, the member concerned is given an opportunity to make a short statement.

Applicability:
1. The Constitution also extends the parliamentary privileges to those persons who are entitled to speak and take part in the proceedings of a House of Parliament or any of its committees. These include the Attorney General of India.
2. The parliamentary privileges do not extend to the President who is also an integral part of the Parliament. Article 361 of the Constitution provides for privileges for the President.

InstaLinks:
Prelims Link:
1. Which provisions of the Constitution protect the privileges of the legislature?
2. What is the procedure to be followed in cases of alleged breach of the legislature’s privilege?
4. What is the punishment for an individual who is found guilty of breaching the legislature’s privilege?
5. Can the Courts intervene in matters involving breach of privileges of state legislatures?

Mains Link:
What do you understand about legislative privileges? Discuss the problem of legislative privileges as seen in India from time to time.

Topics: Salient features of the Representation of People’s Act.

1. Recognition/derecognition of political parties:

Context:
The Delhi High Court has asked the Centre, Delhi government and Election Commission to respond to a petition seeking derecognition of the Aam Aadmi Party for organising a Ganesh Chaturthi event using public money.

What’s the issue?
The petitioner has demanded derecognition of AAP as a party and remove CM Arvind Kejriwal and other ministers from the Constitutional office due to alleged deliberate breach of the Constitution and the Representation of People’s Act in the interest of the public.

Registration of political parties:
Registration of Political parties is governed by the provisions of Section 29A of the Representation of the People Act, 1951.
- A party seeking registration under the said Section with the Election Commission has to submit an application to the Commission within a period of 30 days following the date of its formation as per guidelines prescribed by the Election Commission of India in exercise of the powers conferred by Article 324 of the Commission of India and Section 29A of the Representation of the People Act, 1951.

To be eligible for a ‘National Political Party of India:
1. It secures at least six percent of the valid votes polled in any four or more states, at a general election to the House of the People or, to the State Legislative Assembly.
2. In addition, it wins at least four seats in the House of the People from any State or States.
3. It wins at least two percent seats in the House of the People (i.e., 11 seats in the existing House having 543 members), and these members are elected from at least three different States.
To be eligible for a ‘State Political Party:
1. It secures at least six percent of the valid votes polled in the State at a general election, either to the House of the People or to the Legislative Assembly of the State concerned.
2. In addition, it wins at least two seats in the Legislative Assembly of the State concerned.
3. It wins at least three percent (3%) of the total number of seats in the Legislative Assembly of the State, or at least three seats in the Assembly, whichever is more.

Benefits:
1. If a party is recognised as a State Party’, it is entitled for exclusive allotment of its reserved symbol to the candidates set up by it in the State in which it is so recognised, and if a party is recognised as a ‘National Party’ it is entitled for exclusive allotment of its reserved symbol to the candidates set up by it throughout India.
2. Recognised ‘State’ and ‘National’ parties need only one proposer for filing the nomination and are also entitled for two sets of electoral rolls free of cost at the time of revision of rolls and their candidates get one copy of electoral roll free of cost during General Elections.
3. They also get broadcast/telecast facilities over Akashvani/Doordarshan during general elections.
4. The travel expenses of star campaigners are not to be accounted for in the election expense accounts of candidates of their party.

Insta Curious: How Election Commission decides on party symbols? Read this to understand.

InstaLinks:
Prelims Link:
1. Registration of Political Parties.
2. Recognised vs Unrecognised political parties.
5. Who is a star campaigner?
6. Article 324 of the Indian Constitution.
7. Section 29A of RPA 1951.

Link: https://epaper.thehindu.com/Home/MShareArticle?OrgId=GFP90HN31.1&imageview=0.

Topics: Appointment to various Constitutional posts, powers, functions and responsibilities of various Constitutional Bodies.

1. Appointment of Supreme Court Judges

Context: Swearing-in of the nine new judges of Supreme Court

- Nine new Supreme Court judges were administered their oaths of office by Chief Justice NV Ramana. It is for the first time in the history of Supreme Court that nine judges took oath of office at one go.
- With the swearing-in of the nine new judges, the strength of the Supreme Court has now increased to 33, including the CJI, out of the sanctioned strength of 34.
- Three of them were women judges. One of them, Justice B.V. Nagarathna, is slated to be Chief Justice of India in 2027. With this addition, the apex court will have four women judges for the first time.
- It was the first time the Supreme Court allowed a live telecast of the ceremony.

Collegium System:
- It is the system of appointment and transfer of judges that has evolved through judgments of the Supreme Court, and not by an Act of Parliament or by a provision of the Constitution.
- There is no mention of the Collegium either in the original Constitution of India or in successive amendments.
- The Supreme Court collegium is headed by the CJI and comprises four other senior most judges of the court.
- A High Court collegium is led by its Chief Justice and four other senior most judges of that court.

Related Constitutional Provisions:
- Article 124(2) of the Indian Constitution provides that the Judges of the Supreme Court are appointed by the President after consultation with such a number of the Judges of the Supreme Court and of the High Courts in the States as the President may deem necessary for the purpose.
**Article 217** of the Indian Constitution states that the Judge of a High Court shall be appointed by the President consultation with the Chief Justice of India, the Governor of the State, and, in the case of appointment of a Judge other than the Chief Justice, the Chief Justice of the High Court.

**Evolution of the Collegium System in Judiciary:**

**First Judges Case (1981):** It declared that the “primacy” of the Chief Justice of India (CJI)’s recommendation on judicial appointments and transfers can be refused for “cogent reasons.” The ruling gave the Executive primacy over the Judiciary in judicial appointments for the next 12 years.

**Second Judges Case (1993):** Supreme Court introduced the Collegium system, holding that “consultation” really meant “concurrence”. It added that it was not the CJI’s individual opinion, but an institutional opinion formed in consultation with the two senior-most judges in the SC.

**Third Judges Case (1998):** Supreme Court on President’s reference expanded the Collegium to a five-member body, comprising the CJI and four of his senior-most colleagues.

**InstaLinks:**

**Prelims Link:**

1. What is collegium?
2. How are Judges of Supreme Court and high courts appointed?
3. Appointment of retired judges.
4. Related constitutional provisions.
5. Powers and functions.

**Mains Link:**

Discuss the issues associated with collegium system for the appointment of judges.

**Source:** The Hindu

---

**2. Supreme Court Collegium:**

**Context:**
The Supreme Court **Collegium** has approved 10 additional judges of the Karnataka High Court and two from the Kerala High Court for appointment as permanent judges of these courts.

**Significance of the move:**
The Collegium is pushing hard to fill vacancies. There is likely to be a steady flow of recommendation of names for filling vacancies in the 25 High Courts, which have over 465 vacancies. This is over 41% of the total sanctioned judicial strength of 1,098 in the High Courts.

**Who appoints judges to the SC?**
In exercise of the powers conferred by clause (2) of **Article 124 of the Constitution of India**, the appointments are made by the President of India.
- The names are recommended by the Collegium.

**Eligibility to become a Supreme Court judge:**
The norms relating to the eligibility has been envisaged in the **Article 124 of the Indian Constitution**.

1. To become a judge of the Supreme court, an individual should be an Indian citizen.
2. In terms of age, a person should not exceed 65 years of age.
3. The person should serve as a judge of one high court or more (continuously), for at least five years or the person should be an advocate in the High court for at least 10 years or a distinguished jurist.

**Is the collegium’s recommendation final and binding?**
The collegium sends its final recommendation to the President of India for approval. The President can either accept it or reject it. In the case it is rejected, the recommendation comes back to the collegium. If the collegium reiterates its recommendation to the President, then he/she is bound by that recommendation.
Common criticism made against the Collegium system:
- Opaqueness and a lack of transparency.
- Scope for nepotism.
- Embroilment in public controversies.
- Overlooks several talented junior judges and advocates.

Reforms needed:
1. A transparent and participatory procedure, preferably by an independent broad-based constitutional body guaranteeing judicial primacy but not judicial exclusivity.
2. It should ensure independence, reflect diversity, demonstrate professional competence and integrity.
3. Instead of selecting the number of judges required against a certain number of vacancies, the collegium must provide a panel of possible names to the President to appointment in order of preference and other valid criteria.

InstaLinks:

Prelims Link:
1. What is Collegium System?
2. How SC judges are appointed and removed?
3. How HC judges are appointed and removed?

Mains Link:
4. Constitutional provisions in this regard.

3. First woman Speaker of Gujarat Assembly:

Context:
Veteran legislator Nimaben Acharya was unanimously elected the first woman Speaker of the Gujarat Assembly recently.

How are speakers and deputy speakers elected?

Article 93 for Lok Sabha and Article 178 for state Assemblies state that these Houses “shall, as soon as may be”, choose two of its members to be Speaker and Deputy Speaker.

- In Lok Sabha and state legislatures, the President/Governor sets a date for the election of the Speaker, and it is the Speaker who decides the date for the election of the Deputy Speaker.
- The legislators of the respective Houses vote to elect one among themselves to these offices.

Their roles and functions:
1. The Speaker is “the principal spokesman of the House, he represents its collective voice and is its sole representative to the outside world”.
2. The Speaker presides over the House proceedings and joint sittings of the two Houses of Parliament.
3. It is the Speaker’s decision that determines whether a Bill is a Money Bill and therefore outside of the purview of the other House.
4. Usually, the Speaker comes from the ruling party. In the case of the Deputy Speaker of Lok Sabha, the position has varied over the years.
5. The constitution has tried to ensure the independence of Speaker by charging his salary on the consolidated Fund of India and the same is not subject to vote of Parliament.
6. While debating or during general discussion on a bill, the members of the parliament have to address only to the Speaker.

States which have specified time-frame for holding the election:
The Constitution neither sets a time limit nor specifies the process for these elections. It leaves it to the legislatures to decide how to hold these elections.

For example, Haryana and Uttar Pradesh specify a time-frame.

In Haryana:
1. The election of the Speaker has to take place as soon as possible after the election. And then the Deputy Speaker is to be elected within seven more days.
2. The rules also specify that if a vacancy in these offices happens subsequently, then the election for these should occur within seven days of the legislature’s next session.

In Uttar Pradesh:
1. There is a 15-day limit for an election to the Speaker’s post if it falls vacant during the term of the Assembly.
2. In the case of the Deputy Speaker, the date for the first election is to be decided by the Speaker, and 30 days is given for filling subsequent vacancies.

Know more about Speaker's roles and functions here.

Insta Curious: Who is a Pro tem speaker? Reference: read this.

InstaLinks:
Prelims Link:
1. Election of Speaker.
2. Functions.
4. Removal.
5. Grounds for removal.
6. Committees he is associated with.

Mains Link: Discuss the roles and functions of the Speaker.


Topics: Statutory, regulatory and various quasi-judicial bodies.

1. About NCLT and ITAT:

Context:
The government has appointed 31 people as judicial, technical and accountant members at the National Company Law Tribunal (NCLT) and the Income Tax Appellate Tribunal (ITAT).
- These developments assume significance as they come amid the Supreme Court flagging concerns about vacancies in various tribunals.

Background:
There are around 250 posts lying vacant at various key tribunals and appellate tribunals such as the NCLT, the DRT, the TDSAT and the SAT.
- Supreme Court had recently flagged concerns, saying the Centre was “emasculating” tribunals by not appointing officials to the quasi-judicial bodies that are facing a staff crunch.

About NCLT:
- It is a quasi-judicial body in India that adjudicates issues relating to companies in India.
- Established on 1st June, 2016 (Companies Act, 2013).
- Formed based on the recommendations of the Justice Eradi Committee.
- It deals with matters mainly related to companies law and the insolvency law.
- Term of members: Appointments will be for five years from the date of assumption of charge or till attaining the age of 65 or until further orders.

About ITAT:
- It deals with income tax matters.
- It is statutory body in the field of direct taxes and its orders are accepted as final, on findings of fact.
- ITAT was the first Tribunal to be created on 25th January, 1941 and is also known as ‘Mother Tribunal’.
- With a view to ensuring highest degree of independence of the ITAT, it functions under the Department of Legal Affairs in the Ministry of Law and Justice and is kept away from any kind of control by the Ministry of Finance.
- The orders passed by the ITAT can be subjected to appellate challenge, on substantial questions of law, before the respective High Court.

**Insta Curious:** Have you heard about 'e-dwar'? It is an e-filing portal of Income Tax Appellate Tribunal (ITAT) launched recently. Know more about it, here.

**InstaLinks:**

- **Prelims Link:**
  1. What are tribunals?
  2. Constitutional provisions in this regard.
  3. Composition and functions.
  4. Overview of the latest ordinance.

**Mains Link:**

Are tribunals a panacea for judicial efficiency? Does tribunalisation of justice undermine the principles set in our constitution? Examine.

Link: https://epaper.thehindu.com/Home/MShareArticle?OrgId=GEH8VKR22_1&imageview=0.

### 2. National Financial Reporting Authority (NFRA):

**Context:**

As it seeks to enhance engagement with stakeholders, the National Financial Reporting Authority (NFRA) will set up a single stakeholders' advisory group as well as a research cell to support the group.

**Need for:**

A large majority of the respondents have expressed the urgent need for a settlement mechanism rather than a prolonged stand-alone law making process.

**About NFRA:**

National Financial Reporting Authority (NFRA) was constituted on 1st October, 2018 under section 132 (1) of the Companies Act, 2013.

**Why was it needed?**

In the wake of accounting scams, a need was felt to establish an independent regulator for enforcement of auditing standards and ensuring the quality of audits so as to enhance investor and public confidence in financial disclosures of companies.

**Composition:**

The Companies Act requires the NFRA to have a chairperson who will be appointed by the Central Government and a maximum of 15 members.

**Functions and Duties:**

1. Recommend accounting and auditing policies and standards to be adopted by companies for approval by the Central Government;
2. Monitor and enforce compliance with accounting standards and auditing standards;
3. Oversee the quality of service of the professions associated with ensuring compliance with such standards and suggest measures for improvement in the quality of service;
4. Perform such other functions and duties as may be necessary or incidental to the aforesaid functions and duties.

**Powers:**

1. It can probe listed companies and those unlisted public companies having paid-up capital of no less than Rs 500 crore or annual turnover of no less than Rs 1,000 crore.
2. It can investigate professional misconduct committed by members of the Institute of Chartered Accountants of India (ICAI) for prescribed class of body corporate or persons.

**Insta Curious:** Have you heard about composition scheme under GST? What are its objectives? What is the eligibility? Reference: read this.

**InstaLinks:**

**Prelims Link:**
1. Provisions under which NFRA was constituted?
2. About ICAI.
3. Composition of NFRA.

**Mains Link:**
Discuss the key functions of NFRA and write a note on its significance.

Link: https://epaper.thehindu.com/Home/MShareArticle?OrgId=GJN8VNSEC.1&imageview=0

### 3. National Commission for Minorities:

**Context:**
Former IPS officer Iqbal Singh Lalpura, has been chosen as chairman of National Commission for Minorities.

**About the NCM:**
- National Commission for Minorities (NCM) was set up under the National Commission for Minorities Act, 1992.
- It Monitor the working of the safeguards for minorities provided in the Constitution and in laws enacted by Parliament and the state legislatures.

**Please note,** Six religious communities, viz; Muslims, Christians, Sikhs, Buddhists, Zoroastrians (Parsis) and Jains have been notified in Gazette of India as minority communities by the Union Government all over India.

**Background:**
Setting up of the Minorities Commission (MC) was envisaged in the Ministry of Home Affairs Resolution In 1978.

- In 1984, the ‘Minorities Commission’ was detached from the Ministry of Home Affairs and placed under the newly created Ministry of Welfare.
- In 1992, with the enactment of the ‘National Commission for Minorities Act (NCM Act), 1992’, the MC became a statutory body and was renamed as the ‘National Commission for Minorities’ (NCM).
- In 1993, five religious communities viz. The Muslims, Christians, Sikhs, Buddhists and Zoroastrians (Parsis) were notified as minority communities.
- In 2014, Jains were also notified as a minority community.
- At present National Commission for Minorities functions under the jurisdiction of Ministry of Minority Affairs.

**Composition:**
- NCM consists of a Chairperson, a Vice-Chairperson and five members and all of them shall be from amongst the minority communities.
- Total of 7 persons to be nominated by the Central Government should be from amongst persons of eminence, ability and integrity.
- Each Member holds office for a period of three years from the date of assumption of office.

**Other constitutional provisions to safeguard the Minorities:**
- Article 15 and 16.
- Article 25.
- Article 26.
- Article 28.
- Article 29.
- Article 30.

[www.insightsonindia.com](http://www.insightsonindia.com)
Article 350-B: The 7th Constitutional (Amendment) Act 1956 inserted this article which provides for a Special Officer for Linguistic Minorities appointed by the President of India.

(Find out what these constitutional provisions say).

Insta Curious: Do you know how are minority schools exempt from RTE and SSA? Reference: read this.

InstaLinks:

Prelims Link:
1. About NCM.
2. Composition.
3. Functions.
4. Minorities in India.

Mains Link: Discuss about the rights conferred on minorities by the Constitution.


Context:
National Financial Reporting Authority (NFRA) Chairperson has pitched for a ‘standalone legislation’ for the regulator in the interests of autonomy.

- He also demanded that all necessary penal provisions relating to financial reporting should be consolidated and vested with it.

Why is this necessary?
Currently, the NFRA may take action against auditors for professional misconduct but when it comes to other functionaries of a company who have the responsibility for financial reporting, penal powers continue to be vested with the Centre. A standalone legislation will allow for integrated regulation of all participants in the financial reporting system.

About NFRA:
National Financial Reporting Authority (NFRA) was constituted on 1st October, 2018 under section 132 (1) of the Companies Act, 2013.

Why was it needed?
In the wake of accounting scams, a need was felt to establish an independent regulator for enforcement of auditing standards and ensuring the quality of audits so as to enhance investor and public confidence in financial disclosures of companies.

Composition:
The Companies Act requires the NFRA to have a chairperson who will be appointed by the Central Government and a maximum of 15 members.

Functions and Duties:
1. Recommend accounting and auditing policies and standards to be adopted by companies for approval by the Central Government;
2. Monitor and enforce compliance with accounting standards and auditing standards;
3. Oversee the quality of service of the professions associated with ensuring compliance with such standards and suggest measures for improvement in the quality of service;
4. Perform such other functions and duties as may be necessary or incidental to the aforesaid functions and duties.

Powers:
1. It can probe listed companies and those unlisted public companies having paid-up capital of no less than Rs 500 crore or annual turnover of no less than Rs 1,000 crore.
2. It can investigate professional misconduct committed by members of the Institute of Chartered Accountants of India (ICAI) for prescribed class of body corporate or persons.
**Insta Curious:** Did you know that NFRA’s accounts shall be audited by the Comptroller and Auditor-General of India (CAG)? Know more about CAG audits [here](#).

**InstaLinks:**

**Prelims Link:**
1. Provisions under which NFRA was constituted?
2. About ICAI.

**Mains Link:** Discuss the key functions of NFRA and write a note on its significance.

Link: [https://epaper.thehindu.com/Home/MShareArticle?OrgId=GVK9030DP.1&imageview=0](https://epaper.thehindu.com/Home/MShareArticle?OrgId=GVK9030DP.1&imageview=0).

## 5. Competition Commission of India and Cartelisation:

**Context:**
Last week, the Competition Commission of India found that three beer companies had colluded to fix beer prices for a full decade — between 2009 and 2018.
- As a result, the CCI slapped a penalty of Rs 873 crore on the companies for cartelisation in the sale and supply of beer in 10 states and Union Territories.

**What is a cartel?**
According to CCI, a “Cartel includes an association of producers, sellers, distributors, traders or service providers who, by agreement amongst themselves, limit, control or attempt to control the production, distribution, sale or price of, or, trade in goods or provision of services”.

The three common components of a cartel are:
1. An agreement.
2. Between competitors.
3. To restrict competition.

**Features of a cartel:**
- The agreement that forms a cartel need not be formal or written.
- Cartels almost invariably involve secret conspiracies.
- Here, competitors refers to companies at the same level of the economy (manufacturers, distributors, or retailers) in direct competition with each other to sell goods or provide services.

**What do these cartels do?**
1. Price-fixing.
2. Output restrictions.
4. Bid-rigging.

In simple terms, “participants in hard-core cartels agree to insulate themselves from the rigours of a competitive marketplace, substituting cooperation for competition”.

**Challenges posed by cartels:**
1. Hurt not only the consumers but also, indirectly, undermine overall economic efficiency and innovations.
2. By artificially holding back the supply or raising prices in a coordinated manner, companies either force some consumers out of the market by making the commodity (say, beer) more scarce or by earning profits that free competition would not have allowed.
3. A cartel shelters its members from full exposure to market forces, reducing pressures on them to control costs and to innovate.

**Why do companies resort to Cartelisation?**
The companies blamed government rules, which require them to seek approvals from state authorities for any price revisions, as the main reason for forming a cartel.
About the **Competition Commission Of India**:
The Competition Commission of India (CCI) was established under **the Competition Act, 2002** for the administration, implementation and enforcement of the Act, and was duly constituted in March 2009. Chairman and members are appointed by the central government.

**Functions of the commission:**
1. It is the duty of the Commission to eliminate practices having adverse effects on competition, promote and sustain competition, protect the interests of consumers and ensure freedom of trade in the markets of India.
2. The Commission is also required to give opinion on competition issues on a reference received from a statutory authority established under any law and to undertake competition advocacy, create public awareness and impart training on competition issues.

**The Competition Act:**
The **Monopolies and Restrictive Trade Practices Act, 1969 (MRTP Act)** was repealed and replaced by **the Competition Act, 2002**, on the recommendations of the Raghavan committee.
- The Competition Act, 2002, as amended by the Competition (Amendment) Act, 2007, prohibits anti-competitive agreements, abuse of dominant position by enterprises and regulates combinations (acquisition, acquiring of control and M&A), which causes or likely to cause an appreciable adverse effect on competition within India.

**Insta Curious:** Do you know about the International Competition Network? How might cartels be worse than monopolies? Read [this](https://indianexpress.com/article/explained/why-cartels-can-be-even-worse-than-monopolies-7536426/lite/).

**InstaLinks:**
- **Prelims Link:**
  1. About CCI.
  2. Highlights of the Competition Act and amendments to it.
- **Mains Link:** Discuss the roles and functions of CCI.

**6. National Disaster Management Authority:**

**Context:**
17th Foundation Day of National Disaster Management Authority (NDMA) was celebrated on 28 September.

**About NDMA:**
The National Disaster Management Authority (NDMA), is the apex statutory body for Disaster Management in India.
- It was constituted on 27th September 2006, under **the Disaster Management Act, 2005**.
- **NDMA is mandated** to lay down the policies, plans and guidelines for Disaster Management. India envisions the development of an ethos of Prevention, Mitigation, Preparedness and Response. Please note that the Disaster Management Act envisaged the creation of National Disaster Management Authority (NDMA), headed by the Prime Minister, and State Disaster Management Authorities (SDMAs) headed by respective Chief Ministers, to spearhead and implement a holistic and integrated approach to Disaster Management in India.

**Functions and Responsibilities:**
NDMA, as the apex body, is mandated to lay down the policies, plans and guidelines for Disaster Management to ensure timely and effective response to disasters.
Towards this, it has the following responsibilities:
- Lay down policies on disaster management;
- Approve the National Plan;
• Approve plans prepared by the Ministries or Departments of the Government of India in accordance with the National Plan;
• Lay down guidelines to be followed by the State Authorities in drawing up the State Plan;
• Lay down guidelines to be followed by the different Ministries or Departments of the Government of India for the Purpose of integrating the measures for prevention of disaster or the mitigation of its effects in their development plans and projects;
• Coordinate the enforcement and implementation of the policy and plans for disaster management;
• Recommend provision of funds for the purpose of mitigation;
• Provide such support to other countries affected by major disasters as may be determined by the Central Government;
• Take such other measures for the prevention of disaster, or the mitigation, or preparedness and capacity building for dealing with threatening disaster situations or disasters as it may consider necessary;
• Lay down broad policies and guidelines for the functioning of the National Institute of Disaster Management.

InstaLinks:

Prelims Link:
1. What is DM Act?
2. Bodies established under this act.
3. Composition of NDMA.
5. What is a notified disaster?
6. Functions of NDRF.

Mains Link: Is the Disaster Management Act, 2005, ill-suited to be the main economic law of the country? Analyse the need for a pandemic law in the current situation facing the world.

Topics: Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

1. Two years since NRC draft, lakhs still in limbo

Context: Denial of benefits emanating from Aadhar to people who were eventually included in the draft NRC list after being initially excluded from the draft list published in 2018

More on this news:
• Lakhs of people were left out of the complete draft of Assam’s National Register of Citizens (NRC) published in 2018
• As per the Supreme Court mandated rules, those left out of the draft NRC list had to mandatorily submit their biometrics during the hearings of ‘claims’ (to include themselves in the NRC) and ‘objections’ (to object to someone else’s inclusion) process.
• 27 lakh people who were left out from the list published in 2018 submitted their biometric details and amongst these only 8 lakh people made it into the draft list published in 2019. However, these 8 lakh people are struggling to get Aadhaar, and concerned about benefits linked to it
• Lack of clarity and inability to enjoy the full benefits emanating from Aadhar has caused significant mental pressure on individuals.
• This situation has arisen primarily due to the lack of clarity over the NRC exercise since the government is withholding assigning Aadhar to these newly added individuals since the complete and final NRC list is yet to be published
• What needs to be done? Efforts must be taken by the stakeholders (NRS state coordinator, central government, state government of Assam and Supreme Court of India) involved to address the short-term concerns of these individuals and ensure no one is left behind in enjoying the benefits that the state owes (Ex: Food subsidies) to them; particularly during this pandemic times and a mechanism should be put in place to publish a final list of NRC in a time-bound and just manner

About NRC
• The NRC is the list of Indian citizens and was prepared in 1951, following the census of 1951.
• The process of NRC update was taken up in Assam as per a Supreme Court order in 2013.
In order to wean out cases of illegal migration from Bangladesh and other adjoining areas, NRC updation was carried out under The Citizenship Act, 1955, and according to rules framed in the Assam Accord.

UN experts had warned that the National Register of Citizens (NRC) in Assam could render millions of citizens stateless and create instability in India.

Prelims Link:
- Relation between Census and NPR.
- NPR vs NRC.
- How NRC is related to Assam accord.
- Constitutional provisions with respect to grant and revocation of citizenships.

Mains Link: Discuss why a nationwide NRC exercise may not be feasible.

Source

2. No SC, ST, OBC quota for NRIs appearing for NEET

Context: Recent clarification by the Ministry of Health that aspiring candidates for NEET (National Eligibility cum Entrance Test) can only opt for one quota category.

More on this news:
- NRI students belonging to SC, ST and OBC communities can no longer enjoy the reservation benefits provided to them in the upcoming NEET examinations.
- Aspiring NRI students have also pointed out how they are denied seats under NRI quota in central, state and deemed institutions if they opt for ‘Indian’ as their nationality. Such method of classification discriminates against NRI even though they hold an Indian citizenship.

About NEET examination
NEET is the qualifying test for MBBS and BDS programmes in Indian medical and dental colleges. It is conducted by the National Testing Agency (NTA).

Insta-curious: Know about India’s reservation policy- Click here

InstaLinks:
Prelims link
1. Who is a NRI?
2. What are the benefits afforded to NRIs, if any?
3. Difference between NRI, PIO and OCI
4. Reservation policy in India

Mains link: Should community based reservation benefits be given to NRI students?

Source: The Hindu

3. Assam Cattle Preservation Act, 2021:

Context:
Various pressure groups in Assam groups recently held a rally against the Assam Cattle Preservation Act, 2021, stating that the law was an assault on the farm economy in the name of religion.

- It is aimed at regulating slaughter, consumption and transportation of cattle.

Highlights of the law:
1. Slaughter of cow, calf and heifer is prohibited.
2. Transportation of cattle from or through Assam is prohibited.
3. Sale of beef or beef products is prohibited in areas predominantly inhabited by Hindu, Jains, Sikhs, and other non-beef eating communities.
4. Sale of beef or beef products is prohibited within a 5-km radius of any temple, satra or other Hindu religious institutions.
Punishment under the Assam Cattle Preservation Bill, 2021 for violation:
Those found violating the rules shall be punishable with imprisonment for a term not less than three years and up to eight years or a fine that may vary between Rs 3 lakh and Rs 5 lakh or both. If someone convicted is found guilty of the same or a related offence the second time, the punishment will be doubled.

Need for this law:
There is a rise of illegal cattle smuggling along the India-Bangladesh border despite the deployment of adequate security forces.

- According to the Union government, the Border Security Forces seized 476,035 head of cattle between 2016 and 2020 along the Indo-Bangla border.

Controversial provisions/Criticisms surrounding the law:
1. The law completely prohibits Cow slaughter irrespective of any provisions.
2. It prohibits the sale of Beef and beef products within a radius of 5 km from any temple. This seems like a complete restriction on Beef for residents residing within the 5 km radius.
3. It specifies who is empowered to inspect, search and detain. The power has been provided to Veterinary Officer, Police Officer (Sub Inspector or above), and any person authorized by the State Government. This also might lead to political or communal misuse.
4. The punishments and Fines provided are very extreme. These kinds of punishments are given to a very serious offender in the Indian Penal Code, 1860.

Background:
Assam shares 263 km of border with Bangladesh, out of which 143.9 km is land and 119.1 km is riverine.

Challenges ahead:
1. In Assam, there are many exit points along the porous India-Bangladesh border that facilitate the illicit cattle smuggling.
2. The smuggling also happens through West Bengal and Meghalaya which also share a border with Bangladesh.
3. A couple of years ago, the BSF had identified 65 cattle corridors along the border and had recommended certain measures to stop cattle smuggling.
4. Local police officials in Assam often claim that the law doesn’t allow them to stop someone from transporting cattle to another state. If accosted, the smugglers can claim that these are personal cattle.

Insta Curious: The prohibition of cow slaughter is also one of the Directive Principles of State Policy contained in Article 48 of the Constitution. Name DPSPs inspired by Gandhian Thoughts.

InstaLinks:
Prelims Link:
1. About the law.
2. Key provisions.

Mains Link: Discuss the concerns and issues associated with the law.


www.insightsonindia.com

InsightsIAS
4. Right to Sit to be mandated in Tamil Nadu:

Context:
The Tamil Nadu government has tabled a Bill in the Legislative Assembly making it mandatory for establishments to provide seating facilities for employees. It is popularly being called the "Right to Sit".

Right to Sit:
- It is aimed to benefit thousands of employees of large and small establishments, particularly those working in textile and jewelry showrooms.
- The bill mandates for every premises of establishments to have suitable seating arrangements for all employees so that they may take advantage of any opportunity to sit in the course of their work.
- The bill seeks to amend the Tamil Nadu Shops and Establishments Act, 1947, by adding a sub-section.

Need for:
- Persons employed in shops and establishments in the State are made to stand throughout their duty time resulting in varied health issues.
- Most owners of shops and other retail outlets forbid women, the bulk of the shop workforce, to sit. Even leaning against a wall was punished. They had developed varicose veins and joint pain from standing.

Right to Sit would avoid the ‘on their toes’ situation throughout the working hours.

Inspired from Kerala:
A few years ago, workers of textile showrooms in Kerala had gone on a protest demanding the ‘Right to Sit’, prompting the government there to amend the Kerala Shops and Establishments Act in 2018. This in turn provided seating arrangements for them.

InstaLinks:

Prelims Link:
1. About the Right to Sit.
2. Which states have enforced this right?

Mains Link: Discuss the significance of the Right to Sit.

Link: https://epaper.thehindu.com/Home/MShareArticle?OrgId=GT48V31AS.1&imageview=0.

5. Model Tenancy Act:

Context:
Assam has become the first state to adopt the Model Tenancy Act. With this Assam Urban Areas Rent Control Act, 1972 gets repealed.

Impact:
- New Act will spur growth & development of transparent & accountable rental market & balance the interests of tenants & landlords. It will provide ecosystem for rapid dispute resolution.

Background:
The Union Cabinet, in June 2021, approved the Model Tenancy Act (MTA).
- States and Union territories can now adopt the Model Tenancy Act by enacting fresh legislation or they can amend their existing rental laws suitably.

Highlights of the Model Law:
1. Applicable prospectively and will not affect the existing tenancies.
2. **Written agreement is a must** for all new tenancies. The agreement will have to be submitted to the concerned district 'Rent Authority'.

3. The law also speaks about roles and responsibilities of landlord and tenants.

4. **No landlord or property manager can withhold any essential supply** to the premises occupied by the tenant.

5. If tenancy has not been renewed, the tenancy shall be deemed to be renewed on a month-to-month basis on the same terms and conditions as were in the expired tenancy agreement, for a maximum period of six months.

6. **Compensation in case of non-vacancy**: On the expiry of extended period of six months of agreed tenancy period or the termination of tenancy by order or notice, the tenant shall be a tenant in default and liable to pay compensation of double of the monthly rent for two months and four times of the monthly rent thereafter.

7. A landlord or property manager may enter a premise in accordance with written notice or notice through electronic medium served to the tenant at least twenty-four hours before the time of entry.

**Significance:**
It is an important piece of legislation that promises to ease the burden on civil courts, unlock rental properties stuck in legal disputes, and prevent future tangles by balancing the interests of tenants and landlords.

**Need for a law in this regard:**
1. Young, educated job seekers migrating to large metropolises often complain of onerous tenancy conditions and obscene sums of money as security deposits that they are asked to fork out to lease accommodation. In some cities, tenants are asked to pay security deposits amounting to 11 months of rent.
2. Also, some house owners routinely breach tenants’ right to privacy by visiting the premises unannounced for sundry repair works.
3. Whimsical rent raises are another problem for tenants, many of whom complain of being squeezed as “captive customers”.
4. Besides, Tenants are often accused of “squatting” on the rented premises, or trying to grab the property.

**Insta Curious:** Did you know land tenures including the relation of landlord and tenant, and the collection of rents are subjects under the state list of the Indian Constitution (7th Schedule)? [Read more here](#).

**InstaLinks:**

**Prelims Link:**
1. About the Model law- Highlights.
2. Role of states.

**Mains Link:**
Discuss the significance and relevance of the Model Tenancy Act.

6. **National Trust:**

**Context:**
The [Ministry of Social Justice & Empowerment](#) had recently organised meetings with officials and other stakeholders of Jammu & Kashmir and Ladakh for implementation of [National Trust Act, 1999](#).

**Background:**
This act looks into the welfare of people with autism, cerebral palsy, mental retardation and multiple disabilities.
- The Act also provides for the setting up of the National Trust.

**About the National Trust:**
The National Trust is a **statutory body** of the Ministry of Social Justice and Empowerment, Government of India.
- It was set up under the **“National Trust for the Welfare of Persons with Autism, Cerebral Palsy, Mental Retardation and Multiple Disabilities” Act**.
- Its mandate is to discharge two basic duties – legal and welfare.

[www.insightsonindia.com](http://www.insightsonindia.com)
Objectives:
The objectives of the National Trust in particular are:

- To enable and empower persons with disability to live as independently and as fully as possible within and as close to their community as possible;
- To facilitate the realisation of equal opportunities, protection of rights and full participation of persons with disability;
- To extend support to its registered organisations to provide need-based services; and
- To evolve procedures for appointments of guardians and trustees for persons with disabilities.

Disabilities under NTA:
The National Trust works for the welfare of persons with any of the following four disabilities:

1. Autism
2. Cerebral Palsy
3. Mental Retardation
4. Multiple Disabilities

InstaLinks:

Prelims Link:
1. About the National Trust.
2. Objectives.
3. Functions.

Mains Link: Discuss about the roles and functions of the National Trust.

7. Govt relief package for telecom sector:

Context:
The Union Cabinet, last week, approved a crucial relief package for the cash-strapped telecom firms.

What is the relief package?

- Package includes a four-year moratorium on payment of statutory dues by telecom companies as well as allowing 100% FDI through the automatic route.
- The wide set of measures proposed entail reforms for the ailing sector by way of granting moratorium on unpaid dues, redefining Adjusted Gross Revenue (AGR) prospectively and cutting in Spectrum Usage Charges.

How does the package help?

- It provided much needed relaxation to telecom companies Vodafone Idea, Reliance Jio and Bharti Airtel.
- These are expected to protect and generate employment opportunities, promote healthy competition, protect interests of consumers, infuse liquidity, encourage investment and reduce regulatory burden on Telecom Service Providers (TSPs).
- A moratorium on AGR-related dues will offer space to the cash-strapped firm to improve its business and clear dues over a longer period.
- The definition of AGR has been changed to exclude non-telecom revenue. All non-telecom revenue will be removed from AGR.

But how did the financial condition of the telcos deteriorate?

Let’s understand this in three simple steps:

1. It started by and large with the differing legal interpretation of AGR. To understand this, one must go back to 1999, when the government decided to shift from a fixed to a revenue-sharing model for the telecom sector. Telecom players would pay a certain percentage of their AGR, earned from telecom and non-telecom revenues, as licence and spectrum fee.
2. In 2003, the Department of Telecom (DoT) raised the demand for AGR payments. It said all revenue earned by telcos as dividend from subsidiaries, interest on short-term investments, money deducted as trader discounts, discount for calls and others, which was over and above the revenue from telecom services, would be included for calculation of AGR.

3. The telcos approached the Telecom Disputes Settlement Appellate Tribunal (TDSAT), which in July 2006 ruled the matter must be sent back to the regulator TRAI for fresh consultation. TDSAT rejected the government’s contention, and the Centre moved the Supreme Court. While the case was still ongoing, in 2012, the Supreme Court cancelled 122 telecom licences in the 2G scam case. This prompted a revamp, with spectrum now allocated through auctions.

What was the Supreme Court verdict?
In 2019, the Supreme Court gave the first verdict in the case, holding that DoT’s definition of AGR was the correct one, and that the telcos must pay the AGR, interest and penalty on non-payment.

Insta Curious: Do you know how spectrum auctions are held in India? Reference: read this.

InstaLinks:
Prelims Link:
1. What is AGR? How is it calculated?
2. What was SC’s verdict on this?
3. Composition of TRAI?
4. How spectrum allocation is done in India?

Mains Link: Discuss the challenges facing the Indian telecom sector today. What should the Government of India do to save the telecom sector?

Link: https://indianexpress.com/article/explained/telecom-reforms-vodafone-idea-market-dot-7516500/lite/.

8. State Food Safety Index (SFSI):
Context:
Recently, the Union Minister for Health and Family Welfare released the 3rd State Food Safety Index (SFSI).

Highlights of the index:
1. Among the larger states, Gujarat was the top ranking state, followed by Kerala and Tamil Nadu.
2. Among the smaller states, Goa stood first followed by Meghalaya and Manipur.
3. Among UTs, Jammu & Kashmir, Andaman & Nicobar Islands and New Delhi secured top ranks.

About the Index:
The Index is a dynamic quantitative and qualitative benchmarking model that provides an objective framework for evaluating food safety across all States/UTs.
- The first State Food Safety Index for the year 2018-19 was announced on the first-ever World Food Safety Day on 7th June 2019.
The index is developed by FSSAI (Food Safety and Standards Authority of India) to measure the performance of states on five significant parameters of Food Safety.
- The parameters include Human Resources and Institutional Data, Compliance, Food Testing – Infrastructure and Surveillance, Training & Capacity Building and Consumer Empowerment.

Insta Curious: Do you know about the Food Safety Mitra (FSM) scheme? Reference:

InstaLinks:
Prelims Link:
1. About FSSAI.
2. About State Food Safety Index (SFSI).
3. Parameters.

Mains Link: Discuss the significance of SFSI.

9. BharatNet project:
Context:
The Meghalaya Cabinet has cleared amendments to a tripartite agreement for the implementation of BharatNet project in Meghalaya.

- The agreement was first signed in 2013 between DOT, Meghalaya government’s IT Department and Bharat Broadband Network Limited (BBNL) – the body responsible for implementation of BharatNet.

Background:
Union Cabinet, in July 2021, accorded approval for the revised implementation strategy of BharatNet through Public-Private Partnership (PPP) mode in 16 States of the country.

The strategy includes:
1. The government will provide Rs 19,041 crore as viability gap funding for the project.
2. BharatNet will now extend up to all inhabited villages beyond the gram panchayats (GPs) in the said states.
3. It includes creation, upgradation, operation, maintenance and utilisation of BharatNet by the concessionaire who will be selected by a competitive international bidding process.

Significance:
1. The PPP model will leverage private sector efficiency for operation, maintenance, utilisation and revenue generation, and is expected to result in a faster rollout of BharatNet.
2. Extension of reach of BharatNet to all inhabited villages with reliable, quality, high speed broadband will enable better access of e-services offered by various central and state government agencies.
3. It will also enable online education, telemedicine, skill development, e-commerce and other applications of broadband.

About BharatNet:
1. BharatNet Project was originally launched in 2011 as the National Optical Fibre Network (NOFN) and renamed as Bharat-Net in 2015.
2. It seeks to provide connectivity to 2.5 lakh Gram Panchayats (GPs) through optical fibre.
3. It is a flagship mission implemented by Bharat Broadband Network Ltd. (BBNL).
4. The objective is to facilitate the delivery of e-governance, e-health, e-education, e-banking, Internet and other services to rural India.

The larger vision of the project is:
- To establish a highly scalable network infrastructure accessible on a non-discriminatory basis.
- To provide on demand, affordable broadband connectivity of 2 Mbps to 20 Mbps for all households and on demand capacity to all institutions.
- To realise the vision of Digital India, in partnership with States and the private sector.

Implementation:
The project is a Centre-State collaborative project, with the States contributing free Rights of Way for establishing the Optical Fibre Network. The entire project is being funded by Universal service Obligation Fund (USOF), which was set up for improving telecom services in rural and remote areas of the country.

Insta Curious: Do you know what Dark Fibre is? Read Here

InstaLinks:
Prelims Link:
1. About BharatNet.
2. Objectives and implementation.
3. About USOF.

4. About BBNL.

Mains Link: Discuss the significance of BharatNet Project.

10. Caste census:

Context:
The Union government last week told the Supreme Court that the caste-based data enumerated in the Socio-Economic Caste Census (SECC) of 2011 was “unusable”, but in 2016, the Registrar-General and Census
Commissioner of India had informed the Standing Committee on Rural Development that 98.87% of the data on individual caste and religion was “error free”.

Why the data is “unusable” according to the government?
- The government had said that the total number of castes surveyed in 1931 was 4,147, while the SECC figures show that there are more than 46 lakh different castes. Assuming that some castes may bifurcate into sub-castes, the total number can not be exponentially high to this extent.
- The entire exercise was corrupted because the enumerators had used different spellings for the same castes. In many cases the respondents, the government said, had refused to divulge their castes.

How have caste details been collected so far?
1. While SC/ST details are collected as part of the census, details of other castes are not collected by the enumerators. The main method is by self-declaration to the enumerator.
2. So far, backward classes commissions in various States have been conducting their own counts to ascertain the population of backward castes.

What kind of caste data is published in the Census?
Every Census in independent India from 1951 to 2011 has published data on Scheduled Castes and Scheduled Tribes, but not on other castes. Before that, every Census until 1931 had data on caste.

What is SECC 2011?
The Socio-Economic Caste Census of 2011 was a major exercise to obtain data about the socio-economic status of various communities.
- It had two components: a survey of the rural and urban households and ranking of these households based on pre-set parameters, and a caste census.
- However, only the details of the economic conditions of the people in rural and urban households were released. The caste data has not been released till now.

Difference between Census & SECC:
- The Census provides a portrait of the Indian population, while the SECC is a tool to identify beneficiaries of state support.
- Since the Census falls under the Census Act of 1948, all data are considered confidential, whereas all the personal information given in the SECC is open for use by Government departments to grant and/or restrict benefits to households.

Pros of caste census:
The precise number of the population of each caste would help tailor the reservation policy to ensure equitable representation of all of them.

Concerns associated:
- There is a possibility that it will lead to heartburn among some sections and spawn demands for larger or separate quotas.
- It has been alleged that the mere act of labelling persons as belonging to a caste tends to perpetuate the system.

Insta Curious: Did you know that 'Ain-e-Akbari' included comprehensive data pertaining to population, industry, wealth and many other characteristics? What were the other contents of this? Reference:

InstaLinks:
Prelims Link:
1. What is a census?
2. Statutory provisions in this regard.
3. How is the census carried out?
5. About the National Commission for Backward.

Mains Link: Discuss the need for and significance of caste based census.
11. PLI scheme for textiles works:

Context:
The Government has launched the Production-Linked Incentive (PLI) scheme for the textiles sector worth Rs 10,683 crore.

- This is part of a larger PLI scheme for 13 sectors, with a total budgetary outlay of 1.97 lakh crore.

Focus areas?
The PLI scheme for textiles aims to promote the production of high value Man-Made Fibre (MMF) fabrics, garments and technical textiles.

Eligibility:
1. Any person or company willing to invest a minimum of Rs 300 crore in plant, machinery, equipment and civil works (excluding land and administrative building cost) to produce products of MMF fabrics, garments and products of technical textiles will be eligible to participate in the first part of the scheme.
2. Investors willing to spend a minimum of Rs 100 crore under the same conditions shall be eligible to apply in the second part of the scheme.

Incentives:
1. Under PLI, the Centre will subsidise eligible manufacturers by paying incentives on incremental production.
2. Companies investing over Rs 300 crore in plant, machinery, equipment and civil works to produce the identified products will get an incentive of 15 percent of their turnover, which needs to be Rs 600 crore in the third year.
3. The companies investing between Rs 100 crore and Rs 300 crore will also be eligible to receive duty refunds and incentives (lower than 15 percent of their turnover).
4. The government expects to achieve "fresh investment of over Rs 19,000 crore and a cumulative turnover of more than Rs 3 lakh crore".

Significance:
The PLI scheme will provide an immense boost to domestic manufacturing, and prepare the industry for making a big impact in global markets in sync with the spirit of Atmanirbhar Bharat. It will also help attract more investment into this sector.

Need for:
Two-thirds of international trade in textiles is of man-made and technical textiles. This scheme has been approved so India can also contribute to the ecosystem of fabrics and garments made of MMF.

Insta Curious: Did you know that the Cabinet Committee on Economic Affairs (CCEA) had, in 2020, approved the setting up of a National Technical Textiles Mission at a total outlay of ₹1,480 Crore. Know details about the scheme here.

InstaLinks:
Prelims Link:
www.insightsonindia.com 44 InsightsIAS
3. Types.
5. Production linked incentive scheme—when was it announced?
6. Incentives under the scheme is available to?
7. What kind of investments will be considered?
8. Duration of the scheme.
9. Who will implement it?

Mains Link: Discuss the significance of technical textiles.

Link: https://indianexpress.com/article/explained/explained-how-the-pli-scheme-for-textiles-works-7539759/lite/.

12. Ordinance Factory Board:

Context:
The 220-year-old Ordnance Factory Board will be dissolved on October 1, and its units will be corporatised under seven PSUs.

Need for:
- Corporatisation will bring these entities under the purview of The Companies Act, would lead to improvements in efficiency, make products cost-competitive, and enhance their quality.
- It has been argued that OFB’s monopoly has led to innovation drying up, apart from low productivity, high costs of production, and lack of flexibility at the higher managerial levels.
- Functioning directly under the Ministry of Defence, the OFB and its factories could not retain profits, and thus had no incentive to work towards increasing them.

Recommendations by various committees in this regard:
The restructuring of the Kolkata-headquartered OFB into corporate entities was recommended in one or the other form by at least three expert committees on defence reforms set up in the last two decades — the TKS Nair Committee (2000), Vijay Kelkar Committee (2005), and Vice Admiral Raman Puri Committee (2015).
- The Shekatkar Committee did not suggest corporatisation, but recommended regular audits of all ordnance units considering past performance.

How did the government tackle the workers’ strike against this decision?
Through the Essential Defence Services Ordinance and the Bill. They aimed primarily to stop workers of ordnance factories from going on strike.

Highlights of the Bill:
1. It is meant to “provide for the maintenance of essential defence services so as to secure the security of nation and the life and property of public at large and for matters connected therewith or incidental thereto”.
2. The Bill empowers the government to declare services mentioned in it as essential defence services.
3. It also prohibits strike and lockouts in “any industrial establishment or unit engaged in essential defence services”.

Latest changes:
The Ordnance Factory Board was directly under the Department of Defence Production and worked as an arm of the government. But, in June the government announced its corporatisation.
- As per this plan, 41 factories, ammunition and other equipment to the armed forces will become part of seven government owned corporate entities.
- The government has claimed that the move is aimed at improving the efficiency and accountability of these factories.
- However, following this, many federations announced the launch of indefinite strikes.
- This was countered by the Essential Defence Services Ordinance which was promulgated on June 30.

Who will it affect?

www.insightsonindia.com 45 InsightsIAS
It has a direct bearing on around 70,000 employees of the 41 ordnance factories around the country, who are unhappy with the corporatisation of OFB, fearing that it will impact their service and retirement conditions.

Need for:
The ordnance factories form an integrated base for indigenous production of defence hardware and equipment, with the primary objective of self reliance in equipping the armed forces with state of the art battlefield equipment.

- Therefore, there is a need to provide for the maintenance of essential defence services so as to secure the security of nation and the life and property of public at large and for matters connected therewith or incidental thereto.

Insta Curious: Do you know about the Defence Acquisition Council headed by the defence minister? What are its functions? Reference: read this.

InstaLinks:

**Prelims Link:**
1. What is OFB?
2. Highlights of the Bill.

**Mains Link:**
Discuss the concerns associated with the corporatisation of OFB.

13. Section 66A of the Information Technology Act:

Context:
The Delhi High Court has asked the Centre to consider as representation a petition seeking to remove provisions from the statute such as Section 66A of the Information and Technology Act, which have already been declared unconstitutional.

What’s the issue?
There are several criminal law sections that were struck down by the Supreme Court but continue to be used by police officers. In some cases, trial courts went ahead with framing charges under the defunct IT Act provision, even after taking cognisance of the Supreme Court’s 2015 judgment.

What is Section 66A?
- Section 66A defines the punishment for sending “offensive” messages through a computer or any other communication device like a mobile phone or a tablet.
- A conviction can fetch a maximum of three years in jail and a fine.
- It empowered police to make arrests over what policemen, in terms of their subjective discretion, could construe as “offensive” or “menacing” or for the purposes of causing annoyance, inconvenience, etc.

Shreya Singhal case:
The Supreme Court had in its judgment in the Shreya Singhal case struck down Section 66A.

Why did SC strike down section 66A?
The SC had noted that Section 66A arbitrarily, excessively and disproportionately invades the right of free speech, under article 19(1) (a) of the Constitution, and upsets the balance between such right and the reasonable restrictions that may be imposed on such right and the definition of offences under the provision was open-ended and undefined.

Recent observations made by the Court:
On July 5, the Supreme Court had expressed shock and dismay over police continuing to register cases under section 66A despite it being quashed six years ago.
- As of March 2021, a total of 745 cases are still pending and active before the district courts in 11 states, wherein the accused persons are being prosecuted for offences under Section 66A of the IT Act.

Insta Curious: Do you know about ‘Doctrine of Revival’? Read Here
14. **Mekedatu issue:**

**Context:**
Facing strong objection from Tamil Nadu, Kerala, and Puducherry, the *Cauvery Water Management Authority’s (CWMA)* had urged Karnataka to promptly deliver the balance quantum of water owed to Tamil Nadu, whilst dropping debate on the **Mekedatu project**.

- The release should be as per the Cauvery Water Disputes Tribunal’s decision of 2007, which was modified by the Supreme Court in 2018.

**What was the issue?**
Tamil Nadu noted that Karnataka had only provided 85.8 TMC water instead of 119.5 TMC water until September 26. Tamil Nadu contended that Karnataka should indeed be ordered to deliver the surplus as well as the quota for the month of October promptly so that paddy planting in the Delta region may be protected.

**About CWMA:**
- It has been created as per the *Cauvery Management Scheme* earlier framed by Centre and approved by Supreme Court.

**Composition and Powers of CMA:**
- The authority will comprise a chairman, a secretary and eight members.
- Out of the eight members, two will be full time, while two will be part-time members from centre’s side.
- Rest four will be part-time members from states.

**Functions:**
1. The main mandate of the CMA will be to secure implementation and compliance of the Supreme Court’s order in relation to “storage, apportionment, regulation and control of Cauvery waters”.
2. CMA will also advise the states to take suitable measures to improve water use efficiency.
3. It will do so by promoting use of micro-irrigation, change in cropping patterns, improved farm practices and development of command areas.
4. The CMA will also prepare an annual report covering its activities during the preceding year.

**About the Mekedatu Project:**
- Mekedatu is a multipurpose (drinking and power) project.
- It involves building a balancing reservoir, near Kanakapura in Ramanagara district in Karnataka.
- The project once completed is aimed at ensuring drinking water to Bengaluru and neighboring areas (4.75 TMC) and also can generate 400 MW power.
- The estimated cost of the project is Rs 9,000 crore.

**Why is Tamil Nadu against this project?**
1. It says, the CWDT and the SC have found that the existing storage facilities available in the Cauvery basin were adequate for storing and distributing water so Karnataka’s proposal is ex-facie (on the face of it) untenable and should be rejected outright.

*InstaLinks:*
1. About Section 66A of the IT Act.
3. Shreya Singhal case is related to?

**Mains Link:** Discuss why Section 66A of the IT Act was struck down by the Supreme Court.

2. It has also held that the reservoir is not just for drinking water alone, but to increase the extent of irrigation, which is in clear violation of the Cauvery Water Disputes Award.

Award by the tribunal and the Supreme Court:
The tribunal was set up in 1990 and made its final award in 2007, granting 419 tmcft of water to Tamil Nadu, 270 tmcft to Karnataka, 30 tmcft to Kerala and 7 tmcft to Puducherry. The tribunal ordered that in rain-scarcity years, the allocation for all would stand reduced. However, both Tamil Nadu and Karnataka expressed unhappiness over the allocation and there were protests and violence in both states over water-sharing. That saw the Supreme Court take up the matter and, in a 2018 judgment, it apportioned 14.75 tmcft from Tamil Nadu’s earlier share to Karnataka.

- **The new allocation** thus stood at 404.25 tmcft for Tamil Nadu while Karnataka’s share went up to 284.75 tmcft. The share for Kerala and Puducherry remained unchanged.

**Insta Curious:** Do you know about the Cauvery Management Scheme? What are the components of the scheme? [Reference]

**InstaLinks:**
**Prelims Link:**
1. Tributaries of Cauvery.
2. Basin states.
3. Important falls and dams across the river.

**Mains Link:** Write a note on the Mekedatu project.


**Topics:** Welfare schemes for vulnerable sections of the population by the Centre and States and the performance of these schemes.

1. **Maintenance and Welfare of Parents and Senior Citizens Act, 2007:**

**Context:**
Coming to the aid of senior citizen parents, the Bombay high court has directed a man and his family to vacate a flat within 10 days, failing which police would be used to forcibly evict them.

**What’s the issue?**
As a last resort, the parents invoked the provisions of the Maintenance and Welfare of Parents and Senior Citizens Act, 2007 and the special tribunal under the Act granted relief to the parents, against which the son and his family moved the high court.

**Background:**
The High Court of Karnataka has said that there is a complete failure on the part of the State government to comply with its statutory obligation of establishing old-age homes as per the provisions.

**Overview of the Maintenance and Welfare of Parents and Senior Citizens Act, 2007:**
[www.insightsonindia.com](http://www.insightsonindia.com)
● This Act makes it legally obliging for adult children and heirs to provide for parents by way of a monthly allowance.
● This Act provides an inexpensive and speedy procedure to claim monthly maintenance for parents and senior citizens.
● According to this Act, parents could mean biological, adoptive or step-parents.
● Under this Act, there are also provisions to protect the life and property of such persons (elderly).

Is it mandatory for the state to set up old-age homes as per the law?
Section 19 of the law says, the State Government may establish and maintain such number of oldage homes at accessible places, as it may deem necessary, in a phased manner, beginning with at least one in each district.
● The State Government may also, prescribe a scheme for management of oldage homes.

Insta Curious: The World Health Organization rightly observes, “population ageing is one of humanity’s greatest triumphs”. Why is it so? Read this.

InstaLinks:

Prelims Link:
1. Who are Indigent senior citizens as per the act?
2. Role of states as per the act.
3. Other key features of the Act.
4. Amendments proposed.

Mains Link: Ageing has become a major social challenge. Comment.

Topics: Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.

1. Nipah Virus:

Context:
After a gap of over three years, a case of the zoonotic Nipah virus infection has been reported in Kozhikode district of Kerala.

What measures are being taken to control the spread of the virus?
A contact list of 188 persons, a majority of them healthcare workers, has been prepared. Symptomatic persons will be shifted to hospital.

Need of the hour:
At a time when there is a relentless surge in Covid-19 infections in Kerala, accounting for a lion’s share of the nationwide case load, the return of the dreaded Nipah virus to the State is a cause for major concern.
● This is the time for the Centre and the State government to take up containment measures with mutual trust and coordination.
● There are urgent steps that need to be taken jointly, including contact tracing, quarantine, isolation, collection, and transportation of samples for lab testing and a detailed study of the surrounding areas by the National Centre for Disease Control from an epidemiological standpoint.

What is Nipah?
● It is a zoonotic virus (it is transmitted from animals to humans).
● It first broke out in Malaysia and Singapore in 1998 and 1999.
● It first appeared in domestic pigs and has been found among several species of domestic animals including dogs, cats, goats, horses and sheep.

Spread:
● The virus is transmitted to people from animals and can also be passed on through contaminated food or directly from person-to-person.
● Fruit bats are considered to be a natural reservoir of the virus.

Symptoms:
Symptoms include acute encephalitis and respiratory illnesses.
Prevention:
Currently, there are no vaccines for both humans and animals. Intensive supportive care is given to humans infected by Nipah virus.

Insta Curious: Have you heard of the Tripartite Plus alliance? What are its objectives and achievements?
Reference: read this.

Prelims Link:
1. About the Virus. 2. Spread.

Mains Link: Write a note on one health approach.

Link: https://epaper.thehindu.com/Home/MShareArticle?OrgId=GRM8UVMDP.1&imageview=0.

2. Ayush prophylactic medicines:
Context:
Ayush Ministry kickstarts campaign to distribute prophylactic medicines.
● The kit of Ayurveda prophylactic medicines for Covid-19 contains Sanshamani Vati, which is also known as Guduchi or Giloy Ghan Vati and Ashwagandha Ghan Vati.
● The kit and the guidelines have been prepared by the Central Council for Research in Ayurvedic Medicines (CCRAS).

Targets:
● In the next one year, the immunity booster medicines and the guidelines to combat Covid-19 will be distributed to 75 lakh people across the country.
● Special focus will be on geriatric (people of 60 years and above age) population and the front-line workers.

Benefits and Significance:
● Distribution of Ayush prophylactic medicines will help citizens to boost immunity against the coronavirus.

What are the Prophylactic Medicines?
Prophylactic means a preventive measure.
● The word comes from the Greek for "an advance guard," an apt term for a measure taken to fend off a disease or another unwanted consequence.
● A prophylactic is a medication or a treatment designed and used to prevent a disease from occurring. For example, prophylactic antibiotics may be used after a bout of rheumatic fever to prevent the subsequent development of Sydenham's chorea.

Insta Curious: What are Schedule H1 Drugs? How are they classified? Reference: read this.

InstaLinks: 3. About the Ministry of Ayush.
Prelims Link:
1. About Prophylactic medicines. 2. About CCRAS.

Mains Link: Discuss the significance of Prophylactic medicines.

3. National Institute Ranking Framework:
Context:
The Education Ministry recently launched the sixth edition of the NIRF.

Highlights of the sixth edition:
1. IIT-Madras, IISc-Bangalore, and IIT-Bombay have emerged as the country's top three higher education institutions.
2. Under the best college category, **Miranda House** has again topped the list this year.
3. In the **university category**, IISc Bengaluru was the best-ranked varsity.

**What is NIRF?**
- It is the first-ever effort by the government to rank higher education institutions (HEIs) in the country.
- Participation in the NIRF was voluntary in the initial years; **it was made compulsory for all government-run educational institutions in 2018**.
- This year, roughly 6,000 institutions have participated in NIRF — about twice the number in 2016.

**How are they ranked?**
1. In order to be ranked, all education institutions are **assessed on five parameters**: teaching, learning and resources, research and professional practices, graduation outcomes, outreach and inclusivity, and perception.
2. **NIRF lists out best institutions across 11 categories** — overall national ranking, universities, engineering, college, medical, management, pharmacy, law, architecture, dental and research.

**Insta Curious**: Did you know that the idea of NIRF has its roots in the global rankings? The union government and government-run HEIs were quite upset about their standing in QS World University Rankings and the Times Higher Education World University Ranking. Know more about these reports [here](https://indianexpress.com/article/explained/what-is-nirf-and-why-did-the-government-decide-to-rank-universities-7499133/lite/) and [here](https://indianexpress.com/article/explained/what-is-nirf-and-why-did-the-government-decide-to-rank-universities-7499133/lite/).

**InstaLinks:**
**Prelims Link:**
1. What is NIRF?
2. Parameters used for ranking.
3. Top institutions in various categories.
4. Performance of various institutions this year vs last year.

**Mains Link: Discuss the significance of Institutions of Eminence scheme.**

**4. National Snakebite Awareness Summit:**

**Context:**
National Snakebite Awareness Summit was recently organised in virtual mode by the Integrated Health and Wellbeing Council, New Delhi.
- The summit was held on the eve of the International Snakebite Awareness Day, observed on 19 September every year.

**What’s the issue?**
India is registering an alarming number of deaths due to snakebite. Most of the deaths are preventable with greater awareness and accessible healthcare.
- There is no mechanism of management in the peripheral system to treat snakebites – doctors and paramedical staff need to learn snakebite management but there are no modules.

**What needs to be done?**
- Establishment of a dialysis centre attached to the PHCs to offer immediate treatment to those with renal failure due to snakebite.
- Region-specific treatment protocols to treat snakebite victims and to administer the anti-venom injection, when required.
- Besides, we need to include tribal healers who have the knowledge of traditional medicine and medicinal plants.
- Snakebite should be a notifiable disease and industry can bring in easy solutions but we need help from policymakers in doing that.
Need more localized surveys as preventing snakebite will bring equity – most affected people include children working with parents on fields, villagers and tribals.

Snakebite cases in India:
- In the 20-year period from 2000 to 2019, the country recorded 1.2 million snakebite deaths with an average of 58,000 deaths every year.
- As much as 97 per cent of these deaths happened in villages and more than half of the dead were men in their most productive years.


5. Havana Syndrome:

Context:
A US intelligence officer travelling with CIA director William Burns has reported symptoms of Havana Syndrome while the two were in India earlier this month.
- This is the first instance of the phenomenon being reported in India, at least on record, and could have diplomatic implications.

What is Havana Syndrome?
Havana Syndrome refers to a set of mental health symptoms that are said to be experienced by US intelligence and embassy officials in various countries.
- It typically involves symptoms such as hearing certain sounds without any outside noise being present, nausea, vertigo and headaches, memory loss and issues with balance.

As the name suggests, it traces its roots to Cuba.
- Back in 2016, reports first emerged of US diplomats and other employees of the government falling ill in Havana, the capital of Cuba.
- The patients said they heard strange sounds and experienced odd physical sensations in their hotel rooms or homes, and had symptoms of nausea, severe headaches, fatigue, dizziness, sleep problems and hearing loss.
- This mysterious illness came to be called the “Havana Syndrome”.

How the US has responded to Havana Syndrome?
The US has come to believe there is a “very strong possibility” the syndrome is intentionally caused.
- Over the years, the FBI, CIA, US military, National Institutes of Health, and Centers for Disease Control and Prevention have investigated the incidents without coming out with anything conclusive.
- Some scientists even peddled theories like “psychological illness” due to the stressful environment of foreign missions.
• However, in December 2020, a report by the National Academies of Sciences (NAS) found “directed energy beams” as a “plausible” cause of the Havana Syndrome.

InstaLinks:

Prelims Link:
1. What are Microwave weapons?
2. What is Havana Syndrome? Why is it named so?
3. Reasons behind?

Mains Link:
What is ‘Havana Syndrome’? Discuss why it was in news recently.

6. Ebola Survivors Can Trigger Outbreaks Years After Infection:

Context:
Ebola survivors can relapse and trigger outbreaks at least five years after infection, and long-term follow-up of former patients is needed to prevent devastating flare-ups, according to new research.

• The study notes that these "virus reservoirs" appear able to awaken and cause new infections and transmission years on.

Implications for public health and care of survivors of Ebola:
1. Humans can now be added to the list of intermediate hosts that can serve as long-term Ebola virus ‘reservoirs’ and trigger new outbreaks.
2. There is a need to prioritise healthcare workers for vaccination and monitor Ebola survivors for signs of a flare-up.
3. A broader definition of "Ebola survivor" is now needed, beyond those who battled through symptoms.

Background:
The Ebola outbreak in 2014-2016 killed 11,300 people, mostly in Guinea, Sierra Leone and Liberia.

• In May 2021, the Democratic Republic of the Congo (DRC) officially declared the end of the 12th Ebola outbreak.

About Ebola:
Ebola virus disease (EVD), formerly known as Ebola haemorrhagic fever, is a severe, often fatal illness in humans.

Transmission: The virus is transmitted to people from wild animals and spreads in the human population through human-to-human transmission.
The average EVD case fatality rate is around 50%. Case fatality rates have varied from 25% to 90% in past outbreaks.

Prevention: Community engagement is key to successfully controlling outbreaks. Good outbreak control relies on case management, surveillance and contact tracing, a good laboratory service and social mobilisation.

Treatment: Early supportive care with rehydration, symptomatic treatment improves survival. There is yet no licensed treatment proven to neutralise the virus but a range of blood, immunological and drug therapies are under development.

Insta Curious: Do you know what exactly is Public Health Emergency of International Concern? How many PHEIC declarations have been made so far?
7. Monoclonal antibody treatment:

Context:
European Commission signs contract for the supply of a monoclonal antibody treatment.
- 18 Member States have signed up to the joint procurement for the purchase of up to 220,000 treatments.

What are Monoclonal antibodies?
They are artificially created antibodies that aim to aid the body's natural immune system. They target a specific antigen — a protein from the pathogen that induces immune response.

How are they created?
Monoclonal antibodies can be created in the lab by exposing white blood cells to a particular antigen. To increase the quantity of antibodies produced, a single white blood cell is cloned, which in turn is used to create identical copies of the antibodies.
- In the case of Covid-19, scientists usually work with the spike protein of the SARS-CoV-2 virus, which facilitates the entry of the virus into the host cell.

Need for monoclonal antibodies:
In a healthy body, the immune system is able to create antibodies — tiny Y-shaped proteins in our blood that recognise microbial enemies and bind to them, signalling the immune system to then launch an attack on the pathogen.
However, for people whose immune systems are unable to make sufficient amounts of these antibodies, scientists provide a helping hand- using monoclonal antibodies.

History:
The idea of delivering antibodies to treat a disease dates as far back as the 1900s, when Nobel-prize winning German immunologist Paul Ehrlich proposed the idea of a 'Zauberkugel' (magic bullet), a compound which selectively targets a pathogen.
- From then, it took eight decades of research to finally arrive at Muromonab-CD3, the world’s first monoclonal antibody to be approved for clinical use in humans.
- Muromonab-CD3 is an immunosuppressant drug given to reduce acute rejection in patients with organ transplants.

Applications:
Monoclonal antibodies are now relatively common. They are used in treating Ebola, HIV, psoriasis etc.

Insta Curious: Did you know about Polyclonal antibodies? Find out more about them:

InstaLinks:
1. What are antibodies?
2. What are monoclonal antibodies?
3. How are they created?
4. Applications.
5. Antigens vs antibodies.

Mains Link: What are monoclonal antibodies? Why are they significant? Discuss.

8. African swine fever:

Context:
African Swine Fever (ASF) is back in news again. After Mizoram witnessed the ASF outbreak, cases have been reported in Tripura.

What next?
After the outbreak, the Northeastern states have sounded high alert and asked people, especially owners of piggeries, to refrain from bringing pigs and piglets from other states and neighbouring countries, specially from Myanmar.

**About African Swine Fever (ASF):**
- ASF is a highly contagious and fatal animal disease that infects domestic and wild pigs, typically resulting in an acute form of hemorrhagic fever.
- It was first detected in Africa in the 1920s.
- The mortality is close to 100 per cent, and since the fever has no cure, the only way to stop it spreading is by culling the animals.
- As of now, there is no approved vaccine, which is also a reason why animals are culled to prevent the spread of infection.

**Insta Curious:** Do you know the differences between African Swine fever and Classical swine fever? Read [here](https).

**InstaLinks:**
**Prelims Link:**
1. Can swine fever affect humans?
2. Is it a viral disease?
3. Where was it first discovered?

**Mains Link:** Write a note African Swine Fever, symptoms and its spread.

### 9. Ayushman Bharat PM-JAY:

**Context:**
The world’s largest healthcare scheme Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB-PMJAY) has completed three years. It was launched on September 23rd, 2018.

**Key Features of PM-JAY:**
1. The world’s largest health insurance/assurance scheme fully financed by the government.
2. It provides cover of 5 lakhs per family per year, for secondary and tertiary care hospitalization across public and private empaneled hospitals in India.
3. Coverage: Over 10.74 crore poor and vulnerable entitled families (approximately 50 crore beneficiaries) are eligible for these benefits.
4. Provides cashless access to health care services for the beneficiary at the point of service.
5. The National Health Authority (NHA) is the nodal agency responsible for the nationwide roll-out and implementation of the AB-PMJAY scheme.
6. This scheme is a Centrally sponsored scheme with some Central sector components.

**Eligibility:**
1. No restrictions on family size, age or gender.
2. All pre–existing conditions are covered from day one.
3. Covers up to 3 days of pre-hospitalization and 15 days post-hospitalization expenses such as diagnostics and medicines.
4. Benefits of the scheme are portable across the country.
5. Services include approximately 1,393 procedures covering all the costs related to treatment, including but not limited to drugs, supplies, diagnostic services, physician’s fees, room charges, surgeon charges, OT and ICU charges etc.

[www.insightsonindia.com](www.insightsonindia.com)
6. Public hospitals are reimbursed for the healthcare services at par with the private hospitals.

As per the latest economic survey:
1. The Pradhan Mantri Jan Arogya Yojana (PM-JAY) contributed to improvement in many health outcomes in States that implemented the programme.
2. States that joined the PM-JAY, compared to those that did not, experienced greater penetration of health insurance, reduction in infant and child mortality rates, realised improved access and utilisation of family planning services and greater awareness of HIV/AIDS.
3. Across all the States, the proportion of households with health insurance increased by 54% for States that implemented PM-JAY while falling by 10% in States that did not.

Insta Curious: Did you know that the National Health Authority has also been given the responsibility to implement the National Digital Health Mission? Reference:

InstaLinks:
Prelims Link:
1. Components of Ayushman Bharat.
2. PMJAY- Key features.
3. Eligibility.

Mains Link:
4. About the National Health Agency.
5. SEHAT scheme.

10. Ayushman Bharat Digital Mission:
Context:
The Ayushman Bharat Digital Mission was recently launched by PM. The mission will provide a digital health ID to the people who will hold their health records.

Note:
The pilot project of Ayushman Bharat Digital Mission was announced on August 15 last year. Currently, the programme is being implemented in the pilot phase in six union territories (Chandigarh, Ladakh, Dadra and Nagar Haveli and Daman and Diu, Puducherry, Andaman and Nicobar Islands and Lakshadweep).

Features of the Mission:
1. It is a digital health ecosystem under which every Indian citizen will now have unique health IDs, digitised health records with identifiers for doctors and health facilities.
2. The scheme will come under the Ayushman Bharat Pradhan Mantri Jan Arogya Yojana.
3. It comprises six key building blocks — HealthID, DigiDoctor, Health Facility Registry, Personal Health Records, e-Pharmacy and Telemedicine.
4. The National Health Authority has been given the mandate to design, build, roll-out and implement the mission in the country.
5. The core building blocks of the mission is that the health ID, DigiDoctor and Health Facility Registry shall be owned, operated and maintained by the Government of India.
6. Private stakeholders will have an equal opportunity to integrate and create their own products for the market. The core activities and verifications, however, remain with the government.
7. Under the Mission, every Indian will get a Health ID card that will store all medical details of the person including prescriptions, treatment, diagnostic reports and discharge summaries.
8. Health ID is a randomly generated 14 digit number used for the purposes of uniquely identifying persons, authenticating them, and threading their health records (only with their informed consent) across multiple systems and stakeholders.
9. The citizens will be able to give their doctors and health providers one-time access to this data during visits to the hospital for consultation.

www.insightsonindia.com
What was the need for this mission?
The mission aims to liberate citizens from the challenges of finding the right doctors, seeking appointment, payment of consultation fee, making several rounds of hospitals for prescription sheets, among several others and will empower people to make an informed decision to avail the best possible healthcare.

Insta Curious:
The nationwide rollout of the Ayushman Bharat Digital Mission coincides with the National Health Authority celebrating the third anniversary of Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (PM-JAY). Know more about PM-JAY here.

InstaLinks:
Prelims Link:
1. Overview of the National Digital Health Mission.
2. Components of the mission.
3. Proposed National Health ID.

Mains Link: Discuss the significance of the National Digital Health Mission.

11. National Action Plan for dog Mediated Rabies Elimination:
Context:
- The National Centre for Disease Control (NCDC) has drafted the action plan in consultation with the Ministry of Fisheries, Animal Husbandry and Dairying.

What is the Rabies?
Rabies is a fatal but preventable viral disease. It can spread to people and pets if they are bitten or scratched by a rabid animal.
- Rabies is mostly found in wild animals like bats, raccoons, skunks, and foxes, dogs and most rabies deaths in people around the world are caused by dog bites.
- The rabies virus infects the central nervous system.
- If a person does not receive the appropriate medical care after a potential rabies exposure, the virus can cause disease in the brain, ultimately resulting in death.
- Rabies can be prevented by vaccinating pets, staying away from wildlife, and seeking medical care after potential exposures before symptoms start.

How is rabies transmitted?
Rabies virus is transmitted through direct contact (such as through broken skin or mucous membranes in the eyes, nose, or mouth) with saliva or brain/nervous system tissue from an infected animal.

Transmission:
- Rabies affects only mammals.

Rabies in India:  
www.insightsonindia.com
India has around 20,000 rabies deaths a year. Worldwide, over 59,000 people die every year from rabies, around 40% of them aged under 15. Rabies is responsible for extensive morbidity and mortality in India.

- The disease is endemic throughout the country.
- With the exception of Andaman & Nicobar and Lakshadweep Islands, human cases of rabies are reported from all over the country. The cases occur throughout the year.
- About 96% of the mortality and morbidity is associated with dog bites.

**Insta Curious**: What is more dangerous? Tetanus or rabies? Reference: read this.

**InstaLinks**

**Prelims Link**

1. About Rabies.
2. About the National Action Plan.

**Mains Link**: Discuss the significance of the National action plan on Rabies.

**Topics**: Issues relating to poverty and hunger.

1. **Fortified Rice Kernels (FRK):**

**Context:**

Centre government, for the first time issued uniform specifications for Fortified Rice Kernels (FRK) for grade A & Common Rice. The specifications have been issued by the **Ministry of Consumer Affairs, Food and Public Distribution**.

**Background:**

The fortified rice is to be distributed under various government schemes, including the **public distribution system (PDS)** and **midday meals** in schools, by 2024.

**Need for Rice fortification:**

- The country has high levels of malnutrition among women and children.
- According to the Food Ministry, every second woman in the country is anaemic and every third child is stunted.
- India ranks 94 out of 107 countries and is in the ‘serious hunger’ category on the Global Hunger Index (GHI).
- Malnutrition and lack of essential nutrients in poor women and poor children poses major obstacles in their development.

**What is food fortification?**

Food fortification is defined as **the practice of adding vitamins and minerals to commonly consumed foods during processing** to increase their nutritional value.

- It is a proven, safe and cost-effective strategy for improving diets and for the prevention and control of micronutrient deficiencies.
- The **Food Safety and Standards Authority of India (FSSAI)**, defines fortification as “deliberately increasing the content of essential micronutrients in a food so as to improve the nutritional quality of food and to provide public health benefit with minimal risk to health”.

**Fortified rice:**

According to the Food Ministry, fortification of rice is a cost-effective and complementary strategy to increase vitamin and mineral content in diets.

- According to FSSAI norms, 1 kg fortified rice will contain iron (28 mg-42.5 mg), folic acid (75-125 microgram) and Vitamin B-12 (0.75-1.25 microgram).
- In addition, rice may also be fortified with micronutrients, singly or in combination, with zinc (10 mg-15 mg), Vitamin A (500-750 microgram RE), Vitamin B1 (1 mg-1.5 mg), Vitamin B2 (1.25 mg-1.75 mg), Vitamin B3 (12.5 mg-20 mg) and Vitamin B6 (1.5 mg-2.5 mg) per kg.

**What are the benefits of Fortification?**
Since the nutrients are added to staple foods that are widely consumed, this is an excellent method to improve the health of a large section of the population, all at once.

- **Fortification is a safe method of improving nutrition among people.** The addition of micronutrients to food does not pose a health risk to people.
- **It does not require any changes in food habits** and patterns of people. It is a socio-culturally acceptable way to deliver nutrients to people.
- **It does not alter the characteristics of the food**—the taste, the feel, the look.
- **It can be implemented quickly** as well as show results in improvement of health in a relatively short period of time.
- **This method is cost-effective** especially if advantage is taken of the existing technology and delivery platforms.

**Insta Curious:** What is Biofortification? How is it different from fortification? Reference: read [this](https://www.google.com/amp/s/indianexpress.com/article/india/centre-announces-uniform-specifications-for-fortified-rice-7522819/lite/).

**InstaLinks:**

**Prelims Link:**
1. Bio fortification vs Genetic modifications.
3. Approval for Biofortified and GM crops in India.
4. GM crops allowed in India.

**Mains Link:**
What do you understand by fortification of foods? Discuss its advantages.


---

**2. UN Food Systems Summit:**

**Context:**
The UN Food Systems Summit is taking place in New York. It will seek to set the stage for global food systems transformation to achieve the Sustainable Development Goals by 2030.

It is envisioned that the Summit will have objectives and outcomes including to:

1. Raise awareness of food systems' centrality to the entire sustainable development agenda, and the urgency of transforming food systems, particularly in the wake of a global pandemic.
2. Align stakeholders around a common understanding and narrative of a food system framework as a foundation for concerted action, making food and food systems a more widespread issue for advocacy and action to achieve the 2030 Agenda.
3. Recognize the need for inclusivity and innovation in food systems governance and action.
4. Motivate and empower stakeholders who support food systems transformation through the development of improved tools, measurement, and analysis.
5. Catalyze, accelerate, and enlarge bold action for the transformation of food systems by all communities, including countries, cities, companies, civil society, citizens, and food producers.

Five action areas to help inform the transitions needed to realise the vision of the 2030 agenda have emerged from the Summit process. These include:

1. Nourish all people.
2. Boost nature-based solutions.
3. Advance equitable livelihoods, decent work and empowered communities.
4. Build resilience to vulnerabilities, shocks and stresses.
5. Support means of implementation.

**Background:**
Originally announced on 16 October 2019 by UN Secretary-General António Guterres, the UN Food Systems Summit, including a Pre-Summit, was conceived following conversations with the joint leadership of the three Rome-based United Nations agencies – the Food and Agriculture Organization, the International Fund for Agricultural Development and the World Food Programme – at the High-level Political Forum in July 2019.
About the Summit:
- The Food Systems Summit is 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.
- Guided by five Action Tracks, the Summit will bring together key players from the worlds of science, business, policy, healthcare and academia, as well as farmers.

Why food systems?
The term “food system” refers to the constellation of activities involved in producing, processing, transporting and consuming food.
- Food systems touch every aspect of human existence.
- The health of our food systems profoundly affects the health of our bodies, as well as the health of our environment, our economies and our cultures.
- When they function well, food systems have the power to bring us together as families, communities and nations.

Concerns/Challenges:
- Too many of the world’s food systems are fragile, unexamined and vulnerable to collapse, as millions of people around the globe have experienced first-hand during the COVID-19 crisis.
- When our food systems fail, the resulting disorder threatens our education, health and economy, as well as human rights, peace and security. As in so many cases, those who are already poor or marginalized are the most vulnerable.

Insta Curious: Do you know the difference between Hunger and Food insecurity? Read Here

InstaLinks:
- Prelims Link:
  1. About the Summit.
  2. Objectives.
  3. What are food systems?
  4. What are SDGs?

Topics: India and its neighbourhood- relations.

1. China- Taiwan relations:

Context:
Chinese-claimed Taiwan has complained for a year or more of repeated missions by China’s air force near the self-ruled island, often in the southwestern part of its air defence zone near the Taiwan-controlled Pratas Islands.
- Recently, 19 Chinese aircraft including nuclear-capable bombers had flown into Taiwan’s air defence identification zone.
- In response, Taiwanese combat aircraft were dispatched to warn away the Chinese aircraft, while missile systems were deployed to monitor them.

Rationale behind such acts:
China often mounts such missions to express displeasure at something Taiwan has done or at shows of international support for the democratically ruled island, especially by the United States, Taiwan’s main arms provider.
- China has described its activities as necessary to protect the country’s sovereignty and deal with "collusion" between Taipei and Washington.

Main issues?
- China has increased diplomatic, economic and military pressure on Taiwan, whose residents overwhelmingly reject Beijing’s demand for political unification with the mainland.
- China has long blocked Taiwan from taking part in the UN and other international organizations and has stepped up such pressure since the election of Taiwanese President Tsai Ing-wen in 2016.
China- Taiwan relations- Background:
China has claimed Taiwan through its “one China” policy since the Chinese civil war forced the defeated Kuomintang, or Nationalist, to flee to the island in 1949 and has vowed to bring it under Beijing’s rule, by force if necessary.

- While Taiwan is self-governed and de facto independent, it has never formally declared independence from the mainland.
- Under the “one country, two systems” formula, Taiwan would have the right to run its own affairs; a similar arrangement is used in Hong Kong.

Presently, Taiwan is claimed by China, which refuses diplomatic relations with countries that recognise the region.

Indo- Taiwan relations:
- Although they do not have formal diplomatic ties, Taiwan and India have been cooperating in various fields.
- India has refused to endorse the “one-China” policy since 2010.

Insta Curious: Did you know that to this date, Taiwan is not a part of the WHO owing to objections from China? Read this to know more about the issue.

InstaLinks:
Prelims Link:
1. Location of Taiwan and its historical background.
2. Regions being administered by China under One China policy.

Mains Link: Write a note on India- Taiwan bilateral relations.

Link: https://epaper.thehindu.com/Home/MShareArticle?OrgId=GRM8UVHBM.1&imageview=0.

2. Pakistan Occupied Kashmir:
Context:
Hundreds of protesters recently took to streets of the Pallandari region in Pakistan-occupied Kashmir (PoK) demanding independence from Pakistani clutches.

What’s the issue?
Accusing Islamabad of giving second-class citizen treatment to them for the past seven decades, the protestors said that their rights were trampled upon. Additionally, the country’s administration is also accused of exploiting the citizens politically and economically.

Present position of PoK:
- PoK is called “Azad Jammu & Kashmir” (“AJK” in short).
- It came into being after the 1949 ceasefire between India and Pakistan.
- It comprises the parts of the erstwhile state of Jammu and Kashmir that were occupied by the Pakistani forces.
- Pakistan’s constitutional position on PoK is that it is not a part of the country, but the “liberated” part of Kashmir.

However, Article 257 of Pakistan’s Constitution says: “When the people of the State of Jammu and Kashmir decide to accede to Pakistan, the relationship between Pakistan and the State shall be determined in accordance with the wishes of the people of that State.”

Political structure and how is it administered?
- The constitution of Pakistan lists the country’s four provinces — Punjab, Sind, Balochistan, and Khyber Pakhtunkhwa.
For all practical purposes, PoK is run by the Pakistan government through the all-powerful Kashmir Council, a nominated 14-member body headed by the Prime Minister of Pakistan.

The Assembly has a five-year term. The legislators elect a “prime minister” and a “president” for the territory.

While PoK is ostensibly an autonomous, self-governing territory, the Pakistan Army is the final arbiter on all matters Kashmir.

India’s stand on PoK:

- The fact that PoK is an integral part of India has been our consistent policy ever since 1947.
- India has also made clear to the world that any issue related to PoK is the internal matter of India.
- Please note that Pakistan-occupied Kashmir (PoK) is part of the newly created Union Territory of Jammu and Kashmir, while Gilgit-Baltistan is in the UT of Ladakh in the fresh maps released by the government.

Insta Curious: Did you know that there are 12 seats reserved for Refugees in PoK elections? Read Here Briefly

InstaLinks:

Prelims Link:
1. Location of PoK.
2. Rivers flowing through.
3. Neighbours.

Mains Link: Discuss why PoK is significant for India.

Topics: Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.

3. Concerns over Afghanistan’s membership in SAARC arise

Context: Uncertainty over the present administration in Afghanistan brought about by the Taliban takeover of power has given rise to the membership of the country in the South Asian Association for Regional Cooperation (SAARC)
More on the news

- **SAARC** is scheduled to meet in the month of October this year
- Some experts believe that the fate of Afghanistan’s membership and even the future of SAARC to some extent depend on the Taliban creating an inclusive government.
- Though high-level meetings of SAARC have been hampered in recent times owing to the inability of Pakistan to act against the terrorist outfits in its country, it has not stopped active coordination amongst members in other areas. Ex: Pandemic response in the region
- The concern of granting a seat to Afghanistan under Taliban at UN or even SAARC stems from the violent activities and human rights violations that Taliban regime is known for. The regime since taking power in Afghanistan has been accused of extra-judicial killings of its detractors in the country
- Afghanistan was admitted into the SAARC as the eighth member in 2007 when the country was led by President Hamid Karzai
- Similar questions exist where Afghanistan is a member in other regional outfits. Ex: Kathmandu-based intergovernmental organisation ICIMOD that studies the Hindukush-Himalayan mountain system where Afghanistan has been a member along with Bangladesh, Bhutan, India, China, Myanmar, Nepal and Pakistan.

More on SAARC

South Asian Association for Regional Cooperation (SAARC) was established with the signing of the **SAARC Charter in Dhaka on 8 December 1985**.
- Afghanistan became the newest member of SAARC at the 13th annual summit in 2005.
- The Headquarters and Secretariat of the Association are at Kathmandu, Nepal.

Importance of SAARC:
- SAARC comprises 3% of the world’s area, 21% of the world’s population and 3.8% (US$2.9 trillion) of the global economy.
- It is the world’s most densely populated region and one of the most fertile areas.
- SAARC countries have common tradition, dress, food and culture and political aspects thereby synergizing their actions.
- All the SAARC countries have common problems and issues like poverty, illiteracy, malnutrition, natural disasters, internal conflicts, industrial and technological backwardness, low GDP and poor socio-economic condition.

Why SAARC is relevant for India now?

India has to re-think about SAARC, which has been in the doldrums since 2014. This is especially necessary to counter China’s growing aggression and economic dominance in the region.

India started investing in other regional instruments, such as **BIMSTEC**, as an alternative to SAARC.
- However, BIMSTEC cannot replace SAARC for reasons such as lack of a common identity and history among all BIMSTEC members.
- Moreover, BIMSTEC’s focus is on the Bay of Bengal region, thus making it an inappropriate forum to engage all South Asian nations.
Insta-curious: Know more about ICIMOD- Click here

InstaLinks:

Prelims link
1. What is SAARC?
2. Who are its members and observer states?
3. Important treaties and agreements related to SAARC
4. What is BIMSTEC?

Mains link
1. Reasons why growth of SAARC relations has diminished
2. How can SAARC be revived?
3. Finding a balance between SAARC and BIMSTEC

Source

4. Logistics agreements and their benefits:

Context:
India is all set to conclude the bilateral logistics agreement with Russia (the Reciprocal Exchange of Logistics Agreement (RELOS)) soon while the agreement with the U.K. is in the final stages of conclusion.

What are logistics agreements?
The agreements are administrative arrangements facilitating access to military facilities for exchange of fuel and provisions on mutual agreement simplifying logistical support and increasing operational turnaround of the military when operating away from India.

- India has signed several logistics agreements with all Quad countries, France, Singapore and South Korea beginning with the Logistics Exchange Memorandum of Agreement (LEMOA) with the U.S. in 2016.

Benefits of such logistics agreements:
The Navy has been the biggest beneficiary of these administrative arrangements, signed with several countries, improving operational turnaround and increasing inter-operability on the high seas.

What is LEMOA?
It is a tweaked India-specific version of the Logistics Support Agreement (LSA), which the U.S. has with several countries it has close military to military cooperation. It is also one of the three foundational agreements — as referred to by the U.S.

- LEMOA gives access, to both countries, to designated military facilities on either side for the purpose of refuelling and replenishment.

Insta Curious:
What are the three foundational agreements — as referred to by the U.S? Read this.

InstaLinks:

Prelims Link:
1. About the foundational agreements.
2. What is LEMOA?

Mains Link: Discuss the benefits of bilateral logistics agreements.

Link: https://epaper.thehindu.com/Home/MShareArticle?OrgId=GRM8UVL39.1&imageview=0

5. Recruitment of Indian citizens to work in the Portuguese Republic:

Context:
The Union Cabinet has approved the signing of an agreement on the recruitment of Indian citizens to work in the Portuguese Republic between the Government of India and Portugal.

- The present agreement would set an institutional mechanism for partnership and cooperation between India and Portugal on sending and accepting Indian workers.
Implementation Strategy:
Under this agreement, a Joint Committee will be set up to follow up the implementation of the same.

Impact:
- Signing this agreement with Portugal will add a new destination for Indian migrant workers in an EU member nation, especially in the context of many Indian workers who have returned to India following the Covid-19 pandemic.
- It will provide new opportunities for skilled Indian workers and professionals.
- With the conclusion of this agreement, Portugal and India will have a formal arrangement for recruitment of Indian workers.

Benefits:
- Indian workers would have enhanced job opportunities to work in Portugal.
- The Government-to-Government mechanism proposed in the agreement will ensure that the movement of workers happens smoothly with the maximum support from both sides.

Historical background of India-Portugal Relations:
India’s relations with Portugal remain close and friendly.
- Relations began amicably in 1947 after India’s independence and diplomatic relations were established in 1949.
- Bilateral relations, however, went into decline after 1950 over Portugal’s refusal to surrender its enclaves of Goa, Daman Diu and Dadra and Nagar Haveli on India’s west coast.
- By 1955, the two nations had cut off diplomatic relations which were followed by Indian military forces liberating Goa in 1961 through Operation Vijay, ending over 450 years of Portuguese rule in India.
- In 1974, India and Portugal signed a treaty recognising India’s sovereignty over Goa, Daman & Diu, Dadra & Nagar Haveli and related matters.
- With the signing of this treaty in New Delhi on December 31, 1974, diplomatic relations were re-established and an era of friendly bilateral relations began.

Relation After 1974:
Portugal and India cooperate actively in multilateral fora including support for each other’s candidatures.
- Portugal is supporting India’s bid for a permanent seat in the United Nations Security Council.
- In October 2005, Portugal extradited Abu Salem and Monica Bedi to India facing terror charges in India.
- On October 9, 2015, Portugal became the first European and western country, and only the fourth outside the East Asia Summit, to sign a Memorandum of Understanding on the Establishment of the Nalanda University in India.

Insta Curious:
Do you know about Marakars who fought against Portuguese invaders? Reference: read this.

6. 13th BRICS Summit:
The 13th BRICS Summit is going to be held under India’s Chairship in 2021. It will be the third time that India will be hosting the BRICS Summit after 2012 and 2016.
- The Indian Chairship of BRICS this year coincides with the fifteenth anniversary of BRICS, as reflected in the theme for the Summit.
The theme for the Summit: ‘BRICS@15: Intra-BRICS cooperation for continuity, consolidation and consensus.’

Priority areas under the Indian BRICS Chairship:
India had outlined four priority areas for its Chairship. These are Reform of the:
1. Multilateral System.
2. Counter Terrorism.
4. Enhancing People to People exchanges.

Background:
The BRICS summit is taking place at a time two of the Bloc’s members, India and China, are locked in a bitter border standoff in eastern Ladakh for over six months.
- The BRICS is known as an influential Bloc that represents over 3.6 billion people, or half of the world’s population.
- Such summits are significant for India as the BRICS countries have a combined GDP of USD 16.6 trillion.

What is BRICS?
BRICS is the group composed of the five major emerging countries - Brazil, Russia, India, China and South Africa.
- It together represents about 42% of the population, 23% of GDP, 30% of the territory and 18% of the global trade.
- The acronym BRIC was coined by economist ‘Jim O’Neill’ of Goldman Sachs in 2001 to indicate the emerging powers that would be, alongside the United States, the five largest economies of the world in the 21st century.
- In 2006, BRIC countries started their dialogue, which since 2009 takes place at annual meetings of heads of state and government.
- In 2011, with South Africa joining the group, the BRICS reached its final composition, incorporating a country from the African continent.

Insta Curious:
Have you heard about PARIS21 grouping?
Reference: read this.

InstaLinks:
Prelims Link: 1. About BRICS.
2. Summits.
3. Presidency.
4. Organisations and groups associated with BRICS.

Mains Link: Discuss the significance and relevance of BRICS for India.

7. Collective Security Treaty Organization:
Context:
The Collective Security Treaty Organisation (CSTO) is planning to hold large military drills in Tajikistan next month, amid what it described as a deteriorating situation in neighbouring Afghanistan.

Implications and rationale behind this:
Tajikistan is the only country out of the six-member bloc led by Russia that shares a border with Afghanistan.
- Moscow has moved to cement its position as a key player in the region after the United States’ hasty retreat from Afghanistan and the Taliban’s takeover of the country.
- The group also said it has taken “collective measures” to ensure Tajikistan’s security in case of an “aggravation” on its border with Afghanistan.

About Collective Security Treaty Organization:
- It is an intergovernmental military alliance (six countries) that came into effect in 2002.
- Its’ origin can be traced to the Collective Security Treaty, 1992 (Tashkent Treaty).
- The headquarter is located in the Russian capital of Moscow.
- The objectives of the CSTO is to strengthen peace, international and regional security including cybersecurity and stability, the protection on a collective basis of the independence, territorial integrity and sovereignty of the member states.

**Composition:**
Current CSTO members are Armenia, Belarus, Kazakhstan, Kyrgyzstan, the Russian Federation and Tajikistan. Afghanistan and Serbia hold observer status in the CSTO.

**What the membership entails?**
1. CSTO membership means that member states are barred from joining other military alliances, limiting, for example, their relationship with NATO.
2. Most importantly, membership presumes certain key security assurances – the most significant of which is deterring military aggression by third countries.
3. In the CSTO, aggression against one signatory is perceived as aggression against all.
4. It however remains unclear whether this feature works in practice.

**Insta Curious:** India joined the UK in drive known as ‘Five Eyes’ group of nations, as a seventh member in 2020. What is this group about? Reference: read [this](#).

**InstaLinks:**

Prelims Link:
1. About CSTO.
2. Composition.

Mains Link:
3. Objectives.

Link: [https://epaper.thehindu.com/Home/MShareArticle?OrgId=GK89036JI.1&imageview=0](https://epaper.thehindu.com/Home/MShareArticle?OrgId=GK89036JI.1&imageview=0).

## 8. SCO Peaceful Mission 2021:

**Context:**

**Exercise SCO Peaceful Mission:**
- Joint Counter Terrorism Exercise PEACEFUL MISSION is a Multilateral Exercise, which is conducted biennially as part of military diplomacy between Shanghai Cooperation Organisation (SCO) member states.
- The aim of the exercise is to foster close relations between SCO member states and to enhance abilities of the military leaders to command multi-national military contingents.
- The exercise will enable sharing of best practices between the Armed Forces of SCO nations.

**About the Shanghai Cooperation Organisation (SCO):**
The Shanghai Cooperation Organisation (SCO) is a permanent intergovernmental international organization.
- The creation of SCO was announced on 15 June 2001 in Shanghai (China).
- The Shanghai Cooperation Organisation Charter was signed during the St.Petersburg SCO Heads of State meeting in June 2002, and entered into force on 19 September 2003.
- It was preceded by the Shanghai Five mechanism.
- The SCO’s official languages are Russian and Chinese.

**Founding members of SCO were:**
1. The Republic of Kazakhstan,
2. The People’s Republic of China,
3. The Kyrgyz Republic,
[www.insightsonindia.com](http://www.insightsonindia.com)
4. The Russian Federation,
5. The Republic of Tajikistan,
6. The Republic of Uzbekistan.

Background:
- Kazakhstan, China, Kyrgyzstan, Russia and Tajikistan were members of the Shanghai Five, Prior to the creation of SCO in 2001.
- Shanghai Five (1996) emerged from a series of border demarcation and demilitarization talks which the four former Soviet republics held with China to ensure stability along the borders.
- Uzbekistan joined the organisation in 2001, following this the Shanghai Five was renamed the Shanghai Cooperation Organisation (SCO).
- India and Pakistan became members in 2017.

Member Countries:
Now, SCO is comprised of Eight Member countries. Namely-
1. Kazakhstan
2. China
3. Kyrgyzstan
4. Russia
5. Tajikistan
6. Uzbekistan
7. India
8. Pakistan

Iran has been accepted as the ninth full member of the organisation.

Objectives of SCO:
- Strengthening mutual trust and neighbourliness among the member states.
- Promoting their effective cooperation in politics, trade, the economy, research, technology and culture, as well as in education, energy, transport, tourism, environmental protection, and other areas.
- Making joint efforts to maintain and ensure peace, security and stability in the region.
- Moving towards the establishment of a democratic, fair and rational new international political and economic order.

Significance for India:
The SCO’s significance for India lies in economics and geopolitics with the Eurasian states.
- SCO is a potential platform to advance India’s Connect Central Asia policy. The SCO member states occupy the huge landmass adjacent to India’s extended neighbourhood where India has both economic and security imperatives.
- Importance of SCO-Afghanistan Contact Group to stabilise Afghanistan. SCO membership provides India a vital counter to some of the other groupings it is a part of.
- The SCO provides the only multilateral platform for India to deal in close proximity with Pakistan and Afghanistan.

Insta Curious: Do you know about the Executive Committee of the Regional Anti-Terrorist Structure (RATS) of the Shanghai Cooperation Organisation (SCO)? Reference: read this.

InstaLinks:
Prelims Link:
1. What is Shanghai Five?
2. When was SCO charter signed and when it entered into force?
3. SCO founding members.
4. When did India join the group?
5. Observers and dialogue partners of SCO.
6. Permanent bodies under SCO.
7. Official languages of SCO.

Mains Link:
Discuss the objectives and significance of the Shanghai Cooperation Organisation.
Topics: Effect of policies and politics of developed and developing countries on India’s interests, Indian diaspora.

1. China opens first road-rail transport link to Indian Ocean

Context: The first shipments on a newly-launched railway line from the Myanmar border to the key commercial hub of Chengdu in western China was made recently

More on the news:
- This project provides China a new road-rail transportation channel to the Indian Ocean
- The transport corridor involves a sea-road-rail link.
- This passage connects the logistics lines of Singapore, Myanmar and China, and is currently the most convenient land and sea channel linking the Indian Ocean with southwest China
- China also has plans to develop another port in Kyaukphyu in the Rakhine state, including a proposed railway line from Yunnan directly to the port
- Chinese planners have also looked at the Gwadar port in Pakistan as another key outlet to the Indian Ocean that will bypass the Malacca Straits.
- Gwadar is being developed as part of the China Pakistan Economic Corridor (CPEC) to the far western Xinjiang region, but has been slow to take off amid concerns over security. The costs and logistics through CPEC are also less favourable than the Myanmar route with the opening of the rail transport channel from the Myanmar border right to western China’s biggest commercial hub, Chengdu.

About China’s Belt and Road Initiative (BRI)

What is BRI?
The Belt and Road Initiative, reminiscent of the Silk Road, is a massive infrastructure project that would stretch from East Asia to Europe. It was launched in 2013.
- The plan is two-pronged: the overland Silk Road Economic Belt and the Maritime Silk Road- The two were collectively referred to first as the One Belt, One Road initiative but eventually became the Belt and Road Initiative.
- The project involves creating a vast network of railways, energy pipelines, highways, and streamlined border crossings.

Pakistan and BRI:
To date, more than sixty countries—accounting for two-thirds of the world’s population—have signed on to projects or indicated an interest in so.
- Analysts estimate the largest so far to be the estimated $60 billion China-Pakistan Economic Corridor, a collection of projects connecting China to Pakistan’s Gwadar Port on the Arabian Sea.

What was the original Silk Road?
The original Silk Road arose during the westward expansion of China’s Han Dynasty (206 BCE–220 CE), which forged trade networks throughout the Central Asian countries, as well as modern-day India and Pakistan to the south. Those routes extended more than four thousand miles to Europe.
How have other countries responded to BRI?
Some countries see the project as a disturbing expansion of Chinese power. The United States shares the concern of some in Asia that the BRI could be a Trojan horse for China-led regional development and military expansion.

What does China hope to achieve?
China has both geopolitical and economic motivations behind the initiative.
- The country has promoted a vision of a more assertive China, while slowing growth and rocky trade relations with the United States have pressured the country’s leadership to open new markets for its goods.
- Experts see the BRI as one of the main planks of a bolder Chinese statecraft under Xi, alongside the Made in China 2025 economic development strategy.
- The BRI also serves as pushback against the much-touted S. “pivot to Asia,” as well as a way for China to develop new investment opportunities, cultivate export markets, and boost Chinese incomes and domestic consumption.

India’s views:
India has tried to convince countries that the BRI is a plan to dominate Asia, warning of what some analysts have called a “String of Pearls” geo-economic strategy whereby China creates unsustainable debt burdens for its Indian Ocean neighbors in order to seize control of regional choke points.
- In particular, New Delhi has long been unsettled by China’s decades-long embrace of its traditional rival, Pakistan.

InstaLinks:
Prelims link
1. What is BRI?
2. Objective behind it
3. Important locations related to this

2. India envoy in Doha meets Taliban leader
Context: Official meeting between representatives of India and Taliban leaders in Qatar recently

More on the news
- Indian Ambassador to Qatar Deepak Mittal met with the head of the Taliban’s political office, Sher Mohammad Abbas Stanekzai
- This is the first public engagement between India and the regime of Taliban
- Discussions between the two were centered on- safety, security and early return of Indian nationals stranded in Afghanistan and travel of Afghan nationals who wished to come to India.
- India also raised the issue of ensuring that Afghanistan shall not be used as a front to wage terrorist activities against India
- Taliban regime at various times has expressed its interest to have ‘good relations’ with India since coming to power
- India remains wary of establishing full diplomatic relations with Afghanistan considering the closeness of Taliban to Pakistan and how the former could be used as a proxy to harm the strategic interests of India and also the presence of elements such as Haqqani network amongst the Taliban who were responsible for terrorist attack against Indian embassy
- India has adopted a ‘wait and watch’ approach in its future dealings with Taliban and any interaction of India with Afghanistan will be based on Afghanistan’s actions with regard to human rights, treatment of women and minorities, and attitude towards terror groups that could target India using the Afghan territory.
More on this issue

Afghanistan and its strategic location:

Significance of Afghan stability:
- Can have spill over to Neighboring central Asian countries like Tajikistan, Uzbekistan etc
- Taliban presence will revive extremism in the region and the region can become a safe sanctuary for Let, ISIS etc.
- The possibility of a civil war in Afghanistan will lead to a refugee crisis in Central Asia and beyond.
- Afghanistan’s stability will help the Central Asian countries with the shortest access to the seaports of the Indian Ocean.
- Afghanistan has been an important link in the regional trade, cultural, playing the role of a connecting bridge for Central and the rest of the world.

Why it is imperative now for India to engage with Taliban?
- Taliban has now seized power in Afghanistan.
- India is already having huge investments in Afghanistan. To secure assets worth $3 billion, India should engage with all parties in Afghanistan.
- Taliban engaging with Pak deep state will not be in India’s best interest.
- If India does not engage now Russia, Iran, Pakistan and China will emerge as the shapers of Afghanistan’s political and geopolitical destiny, which for sure will be detrimental to Indian interests.
- The U.S. has announced a new, surprise formation of a “Quad” on regional connectivity — U.S.-Uzbekistan-Afghanistan-Pakistan that does not include India.
- India’s effort to trade with Afghanistan Via Chabahar port in order to increase the economy on scale.

Need of the hour:
- Urgent need to collectively act for the safety of Afghan civilians by allowing for evacuation where required
- Afghanistan should be given enough space in Central Asian architectures like SCO (Shanghai cooperation organisation)
- Unified action for the refugee crisis
- Indian engagement with Taliban to maintain peace with immediate neighbors.

Insta Curious: Know about the US- Taliban peace deal: Click here

Insta Links:

Prelims Link:
1. About Taliban.
2. Afghan Crisis.
3. About NATO.
4. India’s investments in Afghanistan Projects.

Mains Link: Discuss why India should engage with Afghanistan now.

Source:

3. To contain food prices, Sri Lanka declares economic emergency

Context: President of Sri Lanka declared an economic emergency on account to contain inflation which saw a huge spike after a steep fall in valuation of its currency caused a spike in food prices

What precipitated this unprecedented move?
- Since November 2019, the value of Sri Lankan rupee has eroded by about 20%
- High global market price due to the pandemic has escalated the prices of essential items
- Hoarding by traders has also contributed to Sri Lanka taking this emergency route to combat the crisis
- Tourism which happens to be one of the main businesses of Sri Lanka has suffered due to the travel restrictions placed owing to the pandemic. Sri Lanka's economy shrank by a record 3.6% last year.

The declaration of economic emergency will empower Sri Lankan government to:
● Prevent the hoarding of essential items by traders
● Ensure essential items are sold at government-determined prices
● It will also help the government to realize import duties owed to the state by the traders

Inflation and the pandemic
Inflation is the rate of increase in prices over a given period of time. Inflation has been rising consistently since the pandemic hit in multiple countries; primarily owing to supply and demand-side disruptions owing to the pandemic.

Some of the causes behind the recent rise in Inflation:
● Rise in fuel prices. This is adding to the cost of production across multiple industries
● Volatility in labour market has been hampering the normal conduct of business
● There has been a rise in demand; particularly for essential commodities amongst the masses owing to the fear of lockdown. This has led to the behavior of hoarding amongst common people
● The menace of hoarding is still prevalent
● Increase in global prices is causing the products to be diverted to these markets owing to the possibility of greater product; this is creating shortage of products in the domestic market
● Erratic rainfall pattern has further exacerbated the inflation issue in some countries

Way forward
● Ensure adequate supply of essential items through appropriate measures (Ex: prevention of hoarding)
● Monitor the pricing mechanisms of essential items to prevent any steep hike
● Intervention in the market through sale of government-held stocks to bring down the rate of essential items
● Bring petroleum under the GST bracket. This will reduce the multiplicity of taxes currently being imposed on the product
● Improve vaccine coverage so as to ensure minimal disruptions in the market going forward

Insta-curious: How could inflation surge after the pandemic? 

InstaLinks:
Prelims link
1. What is inflation?
2. Causes and effects of inflation
3. Reason behind rise in inflation in recent times in India
4. Effects of currency appreciation and depreciation

Mains link: Discuss the possible ways to reduce inflation in India in the present circumstances

Source: The Hindu

4. What did America achieve in Afghanistan in 20 years?

Context: The recent withdrawal of USA troops from Afghanistan after nearly two decades of waging war on terror

An analysis of America’s achievements in Afghanistan in last 20 years
● USA under President Biden is contesting that it has significantly thwarted the Al-Qaeda terrorist network operating out of Afghanistan and also killed its leader Osama Bin Laden; thereby exacting justice for the 9/11 terror attacks.
● This was the primary goal of America to invade Afghanistan in 2001, and not nation-building, as per President Biden; thereby justifying the withdrawal of troops from Afghanistan
However, such a view is contested by many on grounds that previous US Presidents saw the removal of Taliban from power as the key aspect on winning the war on terror. This was the primary reason why USA continued to pour its resources in America even after dismantling Al-Qaeda network and killing Osama Bin Laden.

Importantly, the war on terror that USA vowed to fight in Afghanistan might not be successful since the terror networks of Al-Qaeda and Islamic state are quite active in Afghanistan and also in the surrounding regions.

Growing factions within the Taliban (Haqqani faction) might lead to a civil war kind of situation which will further add to the instability in the region that could erode the modest gains that USA had achieved in last 20 years in its war on global terror by spending over $2 trillion and losing over 2,300 soldiers

Insta-curious: Evolution of USA’s policies on Afghanistan- Click here

InstaLinks:
Prelims link
1. Geography related information pertaining to Afghanistan (boundary countries, major river and mountain system etc)
2. Major projects undertaken by India in Afghanistan

Mains link: Challenges posed by the return of Taliban to power on the war on terror

Source: The Hindu

5. Iran nuclear deal:

Context:
The U.S. and Germany have stepped up pressure on Iran to return soon to talks on its nuclear programme.

- Meanwhile, the U.N. nuclear watchdog, International Atomic Energy Agency, said Iran has continued to increase its stockpile of highly enriched uranium in breach of the accord.
- The IAEA also said that its verification and monitoring activities have been “seriously undermined”.

Background:
The last round of talks by the remaining parties to the 2015 Iran nuclear accord ended in June and no date has been set for their resumption.

About the Iran Nuclear Deal:
- Also known as the Joint Comprehensive Plan of Action (JCPOA).
- The JCPOA was the result of prolonged negotiations from 2013 and 2015 between Iran and P5+1 (China, France, Germany, Russia, the United Kingdom, the United States, and the European Union, or the EU).
- Under the deal, Tehran agreed to significantly cut its stores of centrifuges, enriched uranium and heavy-water, all key components for nuclear weapons.

What’s the concern now?
- Mr. Trump pulled the U.S. out of the accord in 2018. Besides, he opted for a “maximum pressure” campaign by imposing sanctions and other tough actions.
- Iran responded by intensifying its enrichment of uranium and building of centrifuges, while maintaining its insistence that its nuclear development was for civilian and not military purposes.

Again, in January 2020, following the drone strike on Islamic Revolutionary Guard Corps commander Gen. Qasem Soleiman, Iran announced that it would no longer observe the JCPOA’s restraints.
- The collapse of the JCPOA drags Iran towards nuclear brinkmanship, like North Korea, which has created major geopolitical instability in the region and beyond.
Significance of the deal for India:

- Removing sanctions may revive India’s interest in the Chabahar port, Bandar Abbas port, and other plans for regional connectivity.
- This would further help India to neutralize the Chinese presence in Gwadar port, Pakistan.
- Restoration of ties between the US and Iran will help India to procure cheap Iranian oil and aid in energy security.

**Insta Curious:** Have you heard about the Comprehensive Nuclear-Test-Ban Treaty (CTBT)? Is India a member to this treaty? Reference: read [this](https://epaper.thehindu.com/Home/MShareArticle?OrgId=GNB8V9UKO.1&imageview=0).

**InstaLinks:**

**Prelims Link:**
1. What is JCPOA? Signatories.
2. Iran and its neighbours.

**Mains Link:** Write a note on JCPOA.

**Topics: Important International institutions, agencies and fora, their structure, mandate.**

**1. Eastern Economic Forum 2021:**

**Context:**
Prime Minister Narendra Modi delivered a video-address during the plenary session of the 6th Eastern Economic Forum (EEF) held in Vladivostok, Russia recently.

- It may be recalled that the PM was the Chief Guest for the 5th EEF in 2019.

**About the ‘EEF’**
The Eastern Economic Forum was established by decree of the President of the Russian Federation Vladimir Putin in 2015.

- It supports the economic development of Russia’s Far East and to expand international cooperation in the Asia-Pacific region.
- It takes place each year in Vladivostok, a city in Russia.
- It serves as a platform for the discussion of key issues in the world economy, regional integration, and the development of new industrial and technological sectors, as well as of the global challenges facing Russia and other nations.
- Over the years, it has emerged as an international platform for discussing the strategy for developing political, economic and cultural ties between Russia and Asia Pacific.

**Participants:**
The Forum business programme includes a number of business dialogues with leading partner countries in the Asia-Pacific region, and with ASEAN, a key integration organization of dynamically developing nations in Southeast Asia.

**About the FAR EAST:**
- The Far East is the easternmost part of Russia.
- It borders two oceans, the Pacific and the Arctic, and five countries (China, Japan, Mongolia, the United States and the Democratic People’s Republic of Korea (DPRK)).
- The Far Eastern Federal District covers more than a third of the country’s territory.
- The Far East is rich in natural resources like diamonds, stannary, borax materials, 50 gold, tungsten, and fish and seafood.
- About 1/3 of all coal reserves and hydro-engineering resources of the country are here.
- Forests of the region comprise about 30% of the total forest area of Russia.

[www.insightsonindia.com](http://www.insightsonindia.com)
India’s interest in the EEF:
Going beyond the bonhomie and historical ties, India is also a key customer of the Russian arms industry.

- In March, India entered into a joint venture with Russia to manufacture the legendary Kalashnikov assault rifles in India.
- In 2018, Russia sold the S-400 advanced air defence system to India.
- India is interested in expanding the level of trade between the two countries.
- An area of special interest for India is the exploration of hydrocarbon reserves along the coast of Russia’s Far East.

**InstaLinks:**
1. About the Arctic.
2. About Asia Pacific.
3. What are hydrocarbons?
4. About EEF.
5. About Russia’s Far East.

**Mains Link:**
Comment on India Russia bilateral trade and its significance.

2. **International Fund for Agricultural Development (IFAD):**

**Context:**
Sri Lanka and the International Fund for Agricultural Development (IFAD) are working together to promote the island’s agriculture-based economy.

- They are now partnering to create the Smallholder Agribusiness and Resilience Project (SARP) to combat poverty, food insecurity and gender inequality.

**How SARP Will Prevent Food Insecurity?**
Part of food insecurity goes hand in hand with poverty. Farmers who cannot afford to manage their land or crops cannot produce an adequate supply of food. In turn, many of SARP’s poverty reduction efforts will ultimately improve food production levels.

**About IFAD:**
1. It is a specialized United Nations agency created in 1977 engaged in providing grants and loans with low interest for allied projects.
2. The IFAD works with rural people allowing them to enhance their food security, improve nutrition and raise their incomes.
3. It also helps people to expand their businesses.
4. The organization is an outcome of the World Food Conference of 1974.
5. It is headquartered in Rome and headed by a President.
6. It has 177 member countries.
7. IFAD brings out the Rural Development Report every year.

The objectives of the IFAD are three-fold:
1. To increase the productive capacity of poor people.
2. To increase benefits for them from market participation.
3. To strengthen the environmental sustainability & climate resilience of their economic activities.

**Insta Curious:** How roles and functions of the UN Food and Agriculture Organization (FAO) differ from IFAD? Reference: read [this](#).

**InstaLinks:**
3. Reports.

**Prelims Link:**
1. About IFAD.
2. Objectives.

**Mains Link:** Discuss about the roles and functions of IFAD.

3. What is **Quad?**

**Context:**
[www.insightsonindia.com](http://www.insightsonindia.com)
US President Joe Biden will be hosting the first in-person meeting of the Quad countries on September 24. Prime Minister Narendra Modi, Australian PM Scott Morrison and Japanese PM Yoshihide Suga will be present at the meeting.

- At the meeting, the Quad leaders will focus on issues related to the Covid-19 crisis, climate change, cyberspace and security in the Indo-Pacific.

What is Quad grouping?
The quadrilateral security dialogue includes Japan, India, United States and Australia.
- All four nations find a common ground of being the democratic nations and common interests of unhindered maritime trade and security.

Genesis:
The grouping traces its genesis to 2004 when the four countries came together to coordinate relief operations in the aftermath of the tsunami.
- It then met for the first time in 2007 on the sidelines of the Association of SouthEast Asian Nations (ASEAN) summit.
- The intention was to enhance maritime cooperation between the four nations.

Significance of the grouping:
- Quad is an opportunity for like-minded countries to share notes and collaborate on projects of mutual interest.
- Members share a vision of an open and free Indo-Pacific. Each is involved in development and economic projects as well as in promoting maritime domain awareness and maritime security.
- It is one of the many avenues for interaction among India, Australia, Japan and the US and should not be seen in an exclusive context.

What are China’s views on the Quad?
There is a general understanding that the Quad would not take on a military dimension against any country. The strategic community in China, nevertheless, had branded it an emerging “Asian NATO”.
Notably, Japanese PM Shinzo Abe’s “Confluence of Two Seas” address to the Indian Parliament gave a fresh impetus to the Quad concept. This recognised the economic rise of India.

Why is there a need for formalisation?
Despite renewed efforts, the QUAD has faced criticism over its lack of formal structure. There have been calls for institutionalisation, a formal agreement to transform the group into a formidable anti-China bloc.
A lot has changed over the years. Each member state has faced the heat of China’s increased aggression.
1. China has grown in might and influence and is keen on picking up fights.
2. After attempting to influence Australia’s domestic policies, it slapped punitive tariffs on the country.
3. It is engaged in what has become a routine border confrontation with India.
4. China has flared up territorial disputes with Japan with regards to the Senkaku Islands and is battling a fully-fledged trade war with the United States.

Insta Curious: Have you heard of Quad Plus? Quad members have also indicated a willingness to expand the partnership through a so-called Quad Plus that would include South Korea, New Zealand, and Vietnam amongst others. Read more about this here.

InstaLinks:
Prelims Link:
1. Quad- composition.
2. When was it first proposed?
3. Countries and important islands in the Indian Ocean region.
5. Important seas and straits in the region.

Mains Link: A formal revival and re-invigoration of the Quad is called for to maintain peace and tranquillity and to ensure observance of the UN Law of the Seas. Examine.
4. WHO pre-qualification, or Emergency Use Listing (EUL):

Context:
The World Health Organisation (WHO) may take a decision on granting Emergency Use Listing (EUL) to Bharat Biotech’s Covaxin this week.
- The vaccine should get international recognition with this. Post approval people wanting to travel abroad will not have difficulty.

Background:
A WHO pre-qualification, or Emergency Use Listing (EUL), is necessary for a vaccine company to supply vaccines to global facilities such as COVAX or international procurement.
- So far, eight vaccines have got an EUL from the WHO.
- WHO will also take a decision on including Bharat Biotech’s Covaxin in its list shortly.

About WHO’s Emergency Use List (EUL):
The WHO Emergency Use Listing Procedure (EUL) is a risk-based procedure for assessing and listing unlicensed vaccines, therapeutics and in vitro diagnostics with the ultimate aim of expediting the availability of these products to people affected by a public health emergency.

To be eligible, the following criteria must be met:
1. The disease for which the product is intended is serious or immediately life threatening, has the potential of causing an outbreak, epidemic or pandemic and it is reasonable to consider the product for an EUL assessment, e.g., there are no licensed products for the indication or for a critical subpopulation (e.g., children).
2. Existing products have not been successful in eradicating the disease or preventing outbreaks (in the case of vaccines and medicines).
3. The product is manufactured in compliance with current Good Manufacturing Practices (GMP) in the case of medicines and vaccines and under a functional Quality Management System (QMS) in the case of IVDs.
4. The applicant undertakes to complete the development of the product (validation and verification of the product in the case of IVDs) and apply for WHO prequalification once the product is licensed.

Insta Curious:
What is emergency use authorisation (EUA)? How is it regulated in India? Reference:

InstaLinks:
Prelims Link:

www.insightsonindia.com
5. **World Bank discontinues Doing Business rankings**:  
**Context:**  
The World Bank Group has decided to discontinue publication of its ‘Doing Business’ rankings of country business climates after a review of data irregularities in the 2018 and 2020 reports.

**What’s the issue?**  
In August 2020, World Bank paused the publication of Doing Business reports following a number of irregularities were reported regarding changes to the data.

- The irregularities in Doing Business reports had affected four countries: China; Saudi Arabia; United Arab Emirates; and Azerbaijan.
- A probe of data irregularities cited "undue pressure" by top bank officials, including then-Chief Executive Kristalina Georgieva, to boost China’s ranking in 2017.
- This raised ethical matters involving former bank staff and board officials.

**Why the report matters?**  
World Bank’s annual report matters to several nations, especially developing ones, since it greatly influenced investor decisions by releasing a ranking of economies based on how easy it is to open up, and operate, a business. But while the report was hugely popular among investors, it was heavily criticized by many governments for its methodology that, leaders said, inaccurately captured the realities on the ground.

About **Doing Business project**:
- It provides objective measures of business regulations and their enforcement across 190 economies and selected cities at the subnational and regional level.
- Launched in 2003, looks at domestic small and medium-size companies and measures the regulations applying to them through their life cycle.
- It ranks countries on the basis of Distance to Frontier (DTF) score that highlights the gap of an economy with respect to the global best practice.

InstaLinks:
1. About the Report.
2. Indicators.
3. Overview of 2018 and 2020 reports.

Mains Link: Comment on the concerns associated with Doing Business report of World Bank.

Link: [https://epaper.thehindu.com/Home/MShareArticle?OrgId=GVK9030DF.1&imageview=0](https://epaper.thehindu.com/Home/MShareArticle?OrgId=GVK9030DF.1&imageview=0)

6. **AUKUS Alliance**:
**Context:**  
The UK, US and Australia have announced a historic security pact in the Asia-Pacific, in what's seen as an effort to counter China. It is called the AUKUS pact and AUKUS alliance.

About the AUKUS Pact:
  
www.insightsonindia.com
• Under the AUKUS alliance, the three nations have agreed to enhance the development of joint capabilities and technology sharing, foster deeper integration of security and defence-related science, technology, industrial bases and supply chains.
• Under the first major initiative of AUKUS, Australia would build a fleet of nuclear-powered submarines with the help of the US and the UK, a capability aimed at promoting stability in the Indo-Pacific region.

China's response:
China has condemned the agreement as "extremely irresponsible".
Concerns raised by China:
• The Alliance undermines regional peace and stability and intensifies the arms race.
• It shall reinvent a "Cold War mentality and ideological prejudice".

Rationale behind the formation of this alliance:
The new partnership was announced in a joint virtual press conference. And while China was not mentioned directly, the three leaders referred repeatedly to regional security concerns which they said had "grown significantly".
• In recent years, Beijing has been accused of raising tensions in disputed territories such as the South China Sea.
• Western nations have been wary of China's infrastructure investment on Pacific islands, and have also criticised China's trade sanctions against countries like Australia.

Why nuclear-powered submarines?
These submarines are much faster and harder to detect than conventionally powered fleets. They can stay submerged for months, shoot missiles longer distances and also carry more.
• Having them stationed in Australia is critical to US influence in the region, analysts say.
• The US is sharing its submarine technology for the first time in 50 years. It had previously only shared technology with the UK.
• Australia will become just the seventh nation in the world to operate nuclear-powered submarines, after the US, UK, France, China, India and Russia.
• Australia has reaffirmed it has no intention of obtaining nuclear weapons.

Insta Curious: Learn about Asia/Pacific Group on Money Laundering (APG) here.

InstaLinks: 
3. Features.

Prelims Link: 1. About AUKUS Pact. 2. Objectives. Mains Link: Discuss why China is concerned about the AUKUS Alliance.

Link: https://epaper.thehindu.com/Home/MShareArticle?OrgId=GK89036JM.1&imageview=0.

7. Nuclear site images won’t be shared with IAEA: Iran:

Context:
The EU and the U.S. have urged Iran to allow inspectors from the International Atomic Energy Agency (IAEA) to access a nuclear site, while Tehran argued the facility was exempt from a recent agreement with the UN watchdog.

Background:
IAEA and Tehran struck the three-month monitoring agreement in February to cushion the blow of Iran reducing its cooperation with the agency. The agreement was extended several times.

Implications/concerns:
• The announcement could further complicate talks between Iran and six major powers on reviving a 2015 nuclear deal.

Three years ago, former U.S. President Donald Trump withdrew from the pact and reimposed crippling sanctions on Tehran; Iran reacted by violating restrictions.
About IAEA:
- Set up as the world’s “Atoms for Peace” organization in 1957 within the United Nations family.
- Reports to both the United Nations General Assembly and Security Council.
- Headquarters in Vienna, Austria.

Functions:
- Works with its Member States and multiple partners worldwide to promote the safe, secure and peaceful use of nuclear technologies.
- Seeks to promote the peaceful use of nuclear energy, and to inhibit its use for any military purpose, including nuclear weapons.

Programs:
1. Program of Action for Cancer Therapy (PACT).
2. Human Health Program.

2015 Nuclear Deal:
1. In 2015, Iran with the P5+1 group of world powers - the USA, UK, France, China, Russia, and Germany agreed on a long-term deal on its nuclear programme.
2. The deal was named as Joint Comprehensive Plan of Action (JCPOA) and in common parlance as Iran Nuclear Deal.
3. Under the deal, Iran agreed to curb its nuclear activity in return for the lifting of sanctions and access to global trade.
4. The agreement allowed Iran to accumulate small amounts of uranium for research but it banned the enrichment of uranium, which is used to make reactor fuel and nuclear weapons.
5. Iran was also required to redesign a heavy-water reactor being built, whose spent fuel could contain plutonium suitable for a bomb and to allow international inspections.

Insta Curious: Do you remember the 123 Agreement and Hyde Act? Read Here (Briefly)

InstaLinks:
Prelims Link:
1. What is IAEA? Relation with the UN.
2. Members of IAEA.
3. Programs of IAEA.
4. Board of Governors- composition, voting and functions.
5. What is Uranium Enrichment?

Mains Link: Discuss the need for bringing back the Iran nuclear deal.

Link: [https://www.thehindu.com/news/international/eu-us-urge-iran-to-grant-access-to-iaea/article36703147.ece/amp/](https://www.thehindu.com/news/international/eu-us-urge-iran-to-grant-access-to-iaea/article36703147.ece/amp/).

8. International Criminal Court:
Context:
The international criminal court’s new prosecutor has asked the court to relaunch an inquiry into alleged crimes against humanity committed by the Taliban and supporters of the Islamic State in Afghanistan since 2003.
- ICC has notified the Taliban via Afghanistan’s embassy in the Netherlands that it intends to resume an investigation.

Background:
A previous ICC inquiry was deferred in April 2020 following a request by the then Afghan government of Ashraf Ghani to be given time to gather evidence in cooperation with ICC lawyers.

About ICC:
[www.insightsonindia.com](http://www.insightsonindia.com)
The International Criminal Court (ICC), located in The Hague, is the court of last resort for prosecution of genocide, war crimes, and crimes against humanity.

It is the first permanent, treaty based, international criminal court established to help end impunity for the perpetrators of the most serious crimes of concern to the international community. Its founding treaty, the Rome Statute, entered into force on July 1, 2002.

**Funding:**
Although the Court’s expenses are funded primarily by States Parties, it also receives voluntary contributions from governments, international organisations, individuals, corporations and other entities.

**Composition and voting power:**
The Court’s management oversight and legislative body, the Assembly of States Parties, consists of one representative from each state party.

- Each state party has one vote and “every effort” has to be made to reach decisions by consensus. If consensus cannot be reached, decisions are made by vote.
- The Assembly is presided over by a president and two vice-presidents, who are elected by the members to three-year terms.

**Criticisms:**
1. It does not have the capacity to arrest suspects and depends on member states for their cooperation.
2. Critics of the Court argue that there are insufficient checks and balances on the authority of the ICC prosecutor and judges and insufficient protection against politicized prosecutions or other abuses.
3. The ICC has been accused of bias and as being a tool of Western imperialism, only punishing leaders from small, weak states while ignoring crimes committed by richer and more powerful states.
4. ICC cannot mount successful cases without state cooperation is problematic for several reasons. It means that the ICC acts inconsistently in its selection of cases, is prevented from taking on hard cases and loses legitimacy.

**Insta Curious:** Sudan has decided to hand long-time autocrat Omar al-Bashir to the International Criminal Court along with other officials wanted over the Darfur conflict. What is the Darfur conflict? Reference: read this.

**InstaLinks:**

**Prelims Link:**
1. Differences between ICI and ICC.
2. Geographical locations of these organisations and overview of surrounding countries.
4. What is Rome statute?
5. Location of Afghanistan.
6. US taliban peace deal- overview.

**Mains Link:** Write a note on ICC.
GENERAL STUDIES – 3

Topics: Indian Economy and issues relating to planning, mobilization of resources, growth, development and employment.

1. T.N. announces parks for future mobility, apparels

Context: An integrated apparel park and a future mobility park was announced to be setup in Tamil Nadu recently

More on the news:
- Both the initiatives would boost economic development in the state
- The future mobility park, first of its kind in the country followed the emergence and growing demand for e-vehicles
- Initiatives were also announced to attract investment for defence manufacturing in the state. Ex: A common testing facility for aiding research in the aerospace and defence sectors
- The government also announced a State integrated logistics plan which would be formulated to regulate freight movement to customers, and an exports cell would be set up to boost exports and a research and development policy would be released

What is a future mobility park?
The park would make use of the advances in data science, artificial intelligence and sensing technology to provide cleaner transport, automation, new business models and new modes of sustainable travel. Such mobility parks are established in UK, Detroit etc

![Figure: Opportunities provided by a mobility park](image)

Insta-curious: Know more about future mobility parks: Click here

InstaLinks:
Prelims link
1. What is a defence corridor?
2. What is the future of mobility?
3. Opportunities related to apparel sector

Mains link: How can technology be used to provide for a more sustainable model of transportation?
2. Overseas settlement of G-sec deals on anvil: Das

Context: The Reserve Bank of India (RBI) is planning to enable international settlement of transactions in government securities (G-secs) through International Central Securities Depositories (ICSDs)

More on the news
- This proposal would expand the investor base for the G-secs market
- Once operationalised, this will enhance access of non-residents to the G-secs market, as will the inclusion of Indian G-secs in global bond indices
- An international CSD settles trades in international securities such as eurobonds although many also settle trades in various domestic securities, either directly or through local agents. International CSDs include Clearstream, Euroclear and SIX SIS.

What is a G-sec?
Government security applies to a range of investment products offered by a governmental body. Government securities come with a promise of the full repayment of invested principal at maturity of the security. Some government securities may also pay periodic coupon or interest payments. These securities are considered conservative investments with a low-risk since they have the backing of the government that issued them.

G-sec prices fluctuate sharply in the secondary markets. Factors affecting their prices:
1. Demand and supply of the securities.
2. Changes in interest rates in the economy and other macro-economic factors, such as, liquidity and inflation.
3. Developments in other markets like money, foreign exchange, credit and capital markets.
4. Developments in international bond markets, specifically the US Treasuries.
5. Policy actions by RBI like change in repo rates, cash-reserve ratio and open-market operations.

Insta curious: Know more about ICSD- Click here

InstaLinks:
Prelims Link:
1. What are G-Sees?
2. Short and long term securities.
3. Powers of the Centre and states to issue these instruments.
4. Role of RBI.

Mains Link: What are G-sec? Why are they significant? Discuss.

3. Core sector logs 9.4% growth

Context: Output from India’s eight core sectors grew by 9.4% in July.

More on this news:
- Crude oil was the sole sector to register a decline, with output shrinking 3.2%
- Cement production expanded the fastest in July, surging 21.8%, while fertilizers’ output clocked the slowest pace of growth at 0.5%. Production of natural gas grew by 18.9%, that of coal rose 18.7%, while steel and electricity saw output expand by 9.3% and 9%, respectively.
- Growth in core sector has been attributed to the base effect from last July, when output contracted 7.6%, and some affirmative action by the government on infrastructure spending.
- However, the overall Index of Eight Core industries in the first four months of 2021-22 remained below pre-pandemic levels, 1.5% lower than the April-July 2019 period.

What is a core sector?
The Eight Core Industries comprise 40.27 per cent of the weight of items included in the Index of Industrial Production (IIP). The eight core industries are: Coal, Crude oil, Natural Gas, Refinery products, fertilizers, steel, cement and electricity.

**IIP:**
- The Index of Industrial Production (IIP) is an index which details out the growth of various sectors in an economy such as mining, electricity and manufacturing.
- The all India IIP is a composite indicator that measures the short-term changes in the volume of production of a basket of industrial products during a given period with respect to that in a chosen base period.
- It is compiled and published monthly by the Central Statistical Organisation (CSO) six weeks after the reference month ends.

**InstaLinks:**
**Prelims link**
1. What is a core sector?
2. What is IIP?
3. Reasons affecting core sector growth

**Mains link:** Discuss the policies that is required to increase the core sector growth in the country

### 4. Exports rose 45% in August

**Context:** India’s merchandise exports in August touched $33.14 billion, 45.17% higher than a year ago and 27.5% over the pre-pandemic level of August 2019

**More on this news:**
- Despite the increase in export, the trade deficit widened to a four-month high driven by a sharp uptick in gold imports
- Merchandise imports grew during this time. It grew 51.47% year-on-year to $47 billion, which is also 18% higher than August 2019. This was the primary reason for the widened trade deficit despite an increase in export
- **Gold saw the large increase in import numbers.** Gold imports surged to a five-month high of $6.7 billion in August 2021 and were responsible for 88% of the rise in the merchandise trade deficit relative to July 2021.
- The government has set a target of merchandise exports worth $400 billion for the year and so far as achieved 163 billion of dollar exports
- Though the global trade is recovering which is helping Indian exporters, attention must be given to resolving increasing freight rates, large container shortages and releasing benefits under various export schemes
- Growth in export in labour-intensive sector such as textiles and apparel sector has been less than expected (14%) during this period.

**Insta-curious:** India’s export growth story- [Click here](#)

**InstaLinks:**
**Prelims link**
1. What are merchandise exports?
2. Measures taken in recent times to increase exports
3. Major items of exports and imports
4. What is trade deficit?

**Mains link:** Why has India not been able to increase its share in global export market?

**Source:** The Hindu
5. Financial Stability and Development Council (FSDC)

**Context:** 24th meeting of Financial Stability and Development Council (FSDC).

- The **24th meeting deliberated on various mandates of the FSDC** such as financial stability, financial sector development, inter-regulatory coordination, financial literacy, financial inclusion, and macro prudential supervision of the economy including the functioning of large financial conglomerates.

*Note: Have an overview on the areas the FSDC can deal with*

The council also discussed issues relating to

- Management of stressed assets,
- strengthening institutional mechanism for financial stability analysis,
- framework for resolution of financial institutions and issues related to IBC,
- data sharing mechanisms of government authorities,
- internationalisation of the Indian rupee and
- pension sector related issues.

**About Financial Stability and Development Council (FSDC):**

- Financial Stability and Development Council (FSDC) was set up by the Government as the apex level forum in December 2010.
- The **Chairman of the Council is the Union Finance Minister** and its members include
  - The heads of financial sector Regulators (RBI, SEBI, PFRDA, IRDA & FMC)
  - Finance Secretary and/or Secretary, Department of Economic Affairs,
  - Secretary, Department of Financial Services, and
  - Chief Economic Adviser.
- The Council can invite experts to its meeting if required.

**InstaLinks**

- Prelims Link:
  - 1. About FSDC
  - 2. Composition of FSDC
  - 3. Functions of FSDC

**Source:** The Hindu

6. What are Account Aggregators?

**Context:**

The **account aggregator system** in banking has kicked off with eight of India’s largest banks, including HDFC Bank, ICICI Bank and Axis Bank.

- When fully functional, the system can make lending and wealth management a lot faster and cheaper.

**What are account aggregators?**

An Account Aggregator is a **non-banking financial company** engaged in the business of providing, **under a contract**, the service of retrieving or collecting financial information pertaining to its customer.

- It is also engaged in consolidating, organising and presenting such information to the customer or any other financial information user as may be specified by the bank.

[www.insightsonindia.com](http://www.insightsonindia.com)
**How does an AA work?**

It has a **three-tier structure**: Account Aggregator, FIP (Financial Information Provider) and FIU (Financial Information User).

1. An FIP is the data fiduciary, which holds customers’ data. It can be a bank, NBFC, mutual fund, insurance repository or pension fund repository.
2. An FIU consumes the data from an FIP to provide various services to the consumer. An FIU is a lending bank that wants access to the borrower’s data to determine if the borrower qualifies for a loan.

Banks play a dual role – as an FIP and as an FIU.

**Benefits:**

- The new system makes it possible for banks, tax authorities, insurers and other finance firms to aggregate data of customers — who have provided their consent — to get a better understanding about their potential customers, make informed decisions and ensure smoother transactions.
- This will also enable customers to easily access and share their financial data. It allows customers to avail various financial services from a host of providers on a single portal based on a consent method.
- It reduces the need for individuals to wait in long bank queues, use Internet banking portals, share their passwords, or seek out physical notarisation to access and share their financial documents.
- This will help banks reduce transaction costs, which will enable us to offer lower ticket size loans and more tailored products and services to our customers.

**The AA framework:**

The AA framework was created through an inter-regulatory decision by RBI and other regulators including Securities and Exchange Board of India, Insurance Regulatory and Development Authority, and Pension Fund Regulatory and Development Authority (PFRDA) through an initiative of the **Financial Stability and Development Council (FSDC).**

- The **licence for AAs is issued by the RBI**, and the financial sector will have many AAs.

**Insta Curious:** Is it necessary that every NBFC should be registered with RBI? [Reference](https://www.insightsonindia.com/article/explained/account-aggregators-new-framework-to-access-share-financial-data-7490966/lite/)

**InstaLinks:**

- Payment aggregators vs Payment Gateways- functions.

**Prelims Link:**

1. Capital requirements of NBFCs.
2. NBFCs vs SFBs.

**Mains Link:** Who are payment aggregators? Why there is a need for regulation of these entities? Discuss.


**7. Jharkhand House clears Bill for 75% quota for locals:**

**Context:**

‘The Jharkhand State Employment of Local Candidates Bill, 2021’ was recently passed by the state Assembly.

- It provides **75% reservation for locals in private sector jobs** with a monthly salary of up to ₹40,000.
- Once notified, Jharkhand will become the third State, after Andhra Pradesh and Haryana, to pass such a law.

**How does the bill define private sector jobs?**

The bill will treat shops, establishments, mines, enterprises, industries, companies, societies, trusts, Limited Liability Partnership firms and any person employing ten or more persons as the private sector and an entity. Moreover, the same may be notified by the government from time to time.

**Highlights of the Bill:**
1. Every employer needs to register employees on a designated portal who are receiving gross monthly salary or wages not more than Rs 40,000 — or as notified by the government from time to time — within three months of this bill (after turning into an Act) coming into force.
2. No person should be engaged or employed unless the registration process is complete on the designated portal.
3. No local candidate will be eligible to avail 75 per cent benefit without registering herself in the designated portal.
4. The employer may claim exemption where an adequate number of local candidates of the desired skill qualification or proficiency are not available.
5. The employer will have to furnish a quarterly return about vacancies and employment on the portal which will be examined by an Authorised Officer (AO), who is a District Employment Officer, who can call any records for the purpose of verification.
6. The aggrieved employer may also file an appeal within 60 days of an order passed by the AO or DO in front of an Appellate Authority — the Director, Employment and Training, Government of Jharkhand.

Concerns and issues associated with this policy:
1. Violates constitutional provisions- Article 16.
2. Impacts ‘Unity in Diversity’: This policy can lead to a situation of locals vs non-locals in an area, thus posing a threat to the integration of the country.
3. It might discourage capital investment in the region.
4. Impacts freedom of a business.
5. Against the spirit of competition.

InstaLinks:

Mains Link: Discuss issues associated with Jharkhand’s move to reserve 75% private jobs.

Link: https://epaper.thehindu.com/Home/MShareArticle?OrgId=G438VA99G.1&imageview=0.

8. What is Input Tax Credit (ITC)?

Context:
The Supreme Court has confirmed a Madras High Court judgment which upheld a fiscal formula included in the Central Goods and Service Tax Rules to execute refund of unutilised Input Tax Credit (ITC) accumulated on account of input services.

Background:
The Madras HC had held last year that Section 54(3) of the Central Goods and Service Tax (CGST) Act – which allows for a refund of Input Tax Credit (ITC) where the accumulation is due to an inverted duty structure – does not infringe on Article 14 of the Constitution. It said that refund of tax paid on inputs and not input services was available under the inverted duty structure.

What is Input Tax Credit (ITC)?
- It is the tax that a business pays on a purchase and that it can use to reduce its tax liability when it makes a sale.
- In simple terms, input credit means at the time of paying tax on output, you can reduce the tax you have already paid on inputs and pay the balance amount.

Exceptions: A business under composition scheme cannot avail of input tax credit. ITC cannot be claimed for personal use or for goods that are exempt.
Concerns over its misuse:
1. There could be possibility of misuse of the provision by unscrupulous businesses by generating fake invoices just to claim tax credit.
2. As much as 80% of the total GST liability is being settled by ITC and only 20% is deposited as cash.
3. Under the present dispensation, there is no provision for real time matching of ITC claims with the taxes already paid by suppliers of inputs.
4. Currently there is a time gap between ITC claim and matching them with the taxes paid by suppliers. Hence there is a possibility of ITC being claimed on the basis of fake invoices.

InstaLinks:

Prelims Link:
1. What is GST?
2. What is composition scheme?

Mains Link: Discuss the significance of Input tax credit.

9. ‘Bad bank’ setup and guarantee programme announced by Government to clear the NPA mess:

Context:
The government has set up two new entities to acquire stressed assets from banks and then sell them in the market.

Mechanism envisioned:
The “National Asset Reconstruction Company Limited” (NARCL) has already been incorporated under the Companies Act.
- It will acquire stressed assets worth about Rs 2 lakh crore from various commercial banks in different phases.

Another entity — India Debt Resolution Company Ltd (IDRCL), which has also been set up — will then try to sell the stressed assets in the market.
- The NARCL-IDRCL structure is the new bad bank. To make it work, the government has okayed the use of Rs 30,600 crore to be used as a guarantee.

About the Programme:
It will be a five-year guarantee for the National Asset Reconstruction Company Limited (NARCL)-issued security receipts to banks.
- Under the mechanism, the NARCL will acquire assets by making an offer to the lead bank.
- Private sector asset reconstruction firms (ARCs) may also be allowed to outbid the NARCL.
- Separately, public and private lenders would combine forces to set up an India Debt Resolution Company (IDRC) that would manage these assets and try to raise their value for final resolution.

How it works?
- A 15% cash payment would be made to the banks based on some valuation and the rest will be given as security receipts.
- Once the NARCL and the IDRC have finally resolved the asset, the balance 85% held as security receipts would be given to the banks.
- If the bad bank is unable to sell the bad loan, or has to sell it at a loss, then the government guarantee will be invoked and the difference between what the commercial bank was supposed to get and what the bad bank was able to raise will be paid from the Rs 30,600 crore that has been provided by the government.

Significance:
While there are 28 ARCs in the private sector, she said there was a need for government-backed receipts for big ticket resolutions. The latest move will ensure that NPAs for which this whole set-up is being created, and the value that is locked in the assets is realised and comes back to the banks; they use it as a growth capital and the banking system becomes more robust.

Insta Curious: Do you know about the twin balance sheet problem? Read here.

InstaLinks:

Prelims Link:
1. What is an Asset Reconstruction Company?
2. What is a bad bank?
3. Who can set up a bad bank in India?

Mains Link: Discuss the merits and demerits of setting up of bad banks.

InstaLinks:

Prelims Link:
1. What is an Asset Reconstruction Company?
2. What is a bad bank?
3. Who can set up a bad bank in India?

Link: https://epaper.thehindu.com/Home/MShareArticle?OrgId=GVK903F2T.1&imageview=0

10. What is the IPO Grey Market?

Context:
There were few articles recently mentioning about Grey Market. Traders are interested in grey market stocks because it can be a way of taking advantage of movements in the company’s share price before it has actually listed.

- Also, any activity is usually taken as an indicator for the direction the stock price will take once it has listed. The pre-market price can be used to gauge the demand for the shares.

What is an IPO grey market?
Generally, when companies wish to raise funds to fuel their growth, they sell a part of their stock on the stock market. This process is called an initial public offering, or IPO.

- But, an IPO grey market is an unofficial market where IPO shares or applications are bought and sold before they become available for trading on the stock market.
- It is also termed a parallel market or an over-the-counter market.

Is it legal? How is it governed?
Since it’s unofficial, inevitably, there are no regulations that govern it. The Securities and Exchange Board of India (SEBI), stock exchanges, and brokers have no part to play in it. These transactions are undertaken in cash on a one-on-one basis.

What is the Kostak rate?
It relates to an IPO application. So, the rate at which an investor buys an IPO application before the listing is termed the Kostak rate.

Why do investors trade in the Grey Market?
1. It’s an excellent opportunity for investors to purchase a company’s shares even before they are listed, especially if they feel that the company’s stock will increase in value.
2. If an investor has missed the deadline for the IPO application or wishes to buy more shares then they can approach the IPO grey market.

What is it for the companies?
- For companies, the grey market is a great way to know how the demand for their shares is and how the company’s shares might perform once it is listed.
- Apart from that, an IPO grey market could be used to gauge how the company’s stock will perform once it is listed.

Concerns:
The IPO grey market is an unofficial market that performs outside SEBI’s purview. Thus, there are no guarantees. All transactions are undertaken on the basis of trust and carry counterparty risk. Therefore, there’s little legal recourse available to parties if the stock tanks.
Insta Curious: Some more terminologies: Do you know the differences between Black Market and spot market? Read Here and Read Here.

InstaLinks:
Prelims Link:
1. What is an IPO?
2. What are listed companies?
3. What are primary and secondary markets?
4. About Sebi.

Mains Link: Discuss the Concerns associated with grey markets in India.

Topics: Government Budgeting.

1. What is government borrowing?

Context:
The government will borrow Rs 5.03 lakh crore in the second half of the current fiscal to fund the revenue gap for reviving the pandemic-hit economy.
- During the first half, the government has raised Rs 7.02 lakh crore by issuing bonds.

Background:
- The government raises money from the market to fund its fiscal deficit through dated securities and treasury bills.
- The Budget has pegged fiscal deficit at 6.8 per cent for the current fiscal, down from 9.5 per cent of the GDP projected for FY21.

What is government borrowing?
Borrowing is a loan taken by the government and falls under capital receipts in the Budget document. Usually, the Government borrows through the issue of government securities called G-secs and Treasury Bills.

How does increased government borrowing affect government finances?
Bulk of the government’s fiscal deficit comes from its interest obligation on past debt.
- If the government resorts to larger borrowings, more than what it has projected, then its interest costs also go up risking higher fiscal deficit. That hurts government’s finances.
- Larger borrowing programme means that the public debt will go up and especially at a time when the GDP growth is subdued, it will lead to a higher debt-to-GDP ratio.

What are off-budget borrowings?
Off-budget borrowings are loans that are taken not by the Centre directly, but by another public institution which borrows on the directions of the central government.
- Such borrowings are used to fulfil the government’s expenditure needs.
- But since the liability of the loan is not formally on the Centre, the loan is not included in the national fiscal deficit.

This helps keep the country’s fiscal deficit within acceptable limits.

Insta Curious: Public debt is the total amount borrowed by the government of a country. Do you know what are the sources of public debt? Reference: read this.

InstaLinks:
Prelims Link:
1. What are G-Seecs?
2. What are T-Bills?
3. What is ways and means advance?
4. What is FRBM Act?

Mains Link: How does increased government borrowing affect govt finances? Discuss.
1. Edible Oil Prices

Context: Edible oil prices are likely to reduce by December as international commodity futures show a declining trend and the production of domestic oilseed crops.

Recent Rise in the prices of Edible Oil:
- Last year, the retail prices of six edible oils — groundnut, mustard, vanaspati, soya, sunflower, and palm oil had risen up to 48%. This was due to
  - Surge in global prices, and lower domestic production of soybean which is India’s largest oilseed crop.
  - Excessive buying of edible oil by China.
  - Many major oil producers are aggressively pursuing biofuel policies and diverting their edible oil crops for that purpose.
  - Governmental taxes and duties also make up a major chunk of the retail price of edible oils in India.

India’s Dependence on Edible Oil:
- India is the world’s biggest vegetable oil importer.
- India imports about 60% of its edible oil needs, leaving the country’s retail prices vulnerable to international pressures.
- It imports palm oil from Indonesia and Malaysia, soyoil from Brazil and Argentina, and sunflower oil, mainly from Russia and Ukraine.

Facts about Edible Oils:
- Primary sources of Edible oil (Soybean, Rapeseed & Mustard, Groundnut, Sunflower, Safflower & Niger) and secondary sources of Edible Oil (Oil palm, Coconut, Rice Bran, Cotton seeds & Tree Borne Oilseeds).
- In India major challenges in oilseed production is
  - Growing in largely rain-fed conditions (around 70% area),
  - high seed cost (Groundnut and Soybean),
  - small holding with limited resources,
  - low seed replacement rate and low productivity.

Recently the Government announced the National Edible Oil Mission-Oil Palm (NMO-OP) to boost domestic oilseed production and make the country self-sufficient in cooking oils.

InstaLinks:
Prelims Link:
1. About Edible oil
2. Primary and Secondary sources of Edible oil
3. Major edible oil importing countries
4. About National Edible Oil Mission-Oil Palm (NMO-OP) and its provisions

Mains Link: Why does India have to import edible oils? What is the burden of importing edible oils on the government’s exchequer? What can we do to boost the domestic production of edible oils? Elaborate.

Source: The Hindu
Topics: Issues related to direct and indirect farm subsidies and minimum support prices; Public Distribution System- objectives, functioning, limitations, revamping; issues of buffer stocks and food security; Technology missions; economics of animal-rearing.

1. Minimum support price (MSP):

Context:
The Cabinet Committee on Economic Affairs (CCEA) has approved the increase in the **MSP for all mandated Rabi crops** for the Rabi Marketing Season 2022-23.

- This will ensure maximum remunerative price for farmers and also encourage them to sow a wide variety of crops.

**What is MSP?**
MSP is the rate at which the government buys grains from farmers. Currently, it fixes MSPs for 23 crops grown in both Kharif and Rabi seasons.

**How is it calculated?**
The MSP is the rate at which the government purchases crops from farmers, and is **based on a calculation of at least one-and-a-half times the cost of production incurred by the farmers.**

- **The Union Budget for 2018-19** had announced that MSP would be kept at levels of 1.5 the cost of production.
- **The MSP is fixed twice a year on the recommendations of** the **Commission for Agricultural Costs and Prices (CACP),** which is a statutory body and submits separate reports recommending prices for kharif and rabi seasons.

**Which production costs are taken in fixing the MSPs?**
The **CACP considers both ‘A2+FL’ and ‘C2’ costs while recommending MSP.**

1. **A2** costs cover all paid-out expenses, both in cash and kind, incurred by farmers on seeds, fertilisers, chemicals, hired labour, fuel and irrigation, among others.
2. **A2+FL** covers actual paid-out costs plus an imputed value of unpaid family labour.
3. The **C2** costs account for the rentals and interest forgone on owned land and fixed capital assets respectively, on top of A2+FL.

**The limitations of MSP:**

1. The major problem with the MSP is lack of government machinery for procurement for all crops except wheat and rice, which the Food Corporation of India actively procures under the PDS.
2. As state governments procure the last mile grain, the farmers of states where the grain is procured completely by the government benefit more while those in states that procure less are often affected.
3. The MSP-based procurement system is also dependent on middlemen, commission agents and APMC officials, which smaller farmers find difficult to get access to.

**InstaCurious:** What is agroforestry? Why does India need to promote this? **Reference:**

**InstaLinks:**
**Prelims Link:**
1. Composition of CCEA.
2. What is CACP?
3. How many crops are covered under the MSP scheme?
4. Who announces MSP?
5. Difference between Kharif and Rabi crops.


2. **How Agri Infra Fund is strengthening primary Agri Co-Op Societies?**

Context:
One year after its launch, the Central government’s Agriculture Infrastructure Fund (AIF) has given a major boost to the strengthening of Primary Agricultural Cooperative Societies (PACS) – the lifelines of village-level credit systems.

- The Ministry of Agriculture data provided to Rajya Sabha last month reveal that a total of 6,524 projects, at cost of ₹4,503, have been sanctioned under AIF.
- Out of this, 76 per cent (4,963) of the projects have gone to PACS. This means that 65 per cent of the funds under the scheme have gone to PACS projects.

**Latest modifications:**

Recently, The Union Cabinet has approved the various modifications in the Central Sector Scheme of Financing Facility under ‘Agriculture Infrastructure Fund’.

1. **Eligibility has now been extended** to State Agencies/APMCs, National & State Federations of Cooperatives, Federations of Farmers Producers Organizations (FPOs) and Federations of Self Help Groups (SHGs).

2. For APMCs, interest subvention for a loan upto Rs. 2 crore will be provided for each project of different infrastructure types e.g. cold storage, sorting, grading and assaying units, silos, etc within the same market yard.

3. **The power has been delegated to the Minister of Agriculture & Farmers Welfare** to make necessary changes with regard to addition or deletion of beneficiaries.

4. The period of financial facility has been extended from 4 to 6 years upto 2025-26 and overall period of the scheme has been extended from 10 to 13 upto 2032-33.

**About the Agriculture Infrastructure Fund:**

- It is a medium - long term debt financing facility for investment in viable projects for post-harvest management infrastructure and community farming assets through interest subvention and credit guarantee.

- Under the scheme, Rs. 1 Lakh Crore will be provided by banks and financial institutions as loans with interest subvention of 3% per annum and credit guarantee coverage under CGTMSE for loans up to Rs. 2 Crores.

**Eligible beneficiaries include:**

Originally, it included Farmers, Marketing Cooperative Societies, Joint Liability Groups (JLG), Multipurpose Cooperative Societies, Agri-entrepreneurs, Start-ups, and Central/State agency or Local Body sponsored Public-Private Partnership Projects.

**Interest subvention:**

All loans under this financing facility will have interest subvention of 3% per annum up to a limit of Rs. 2 crore. This subvention will be available for a maximum period of seven years.

**Credit guarantee:**

- Credit guarantee coverage will be available for eligible borrowers from this financing facility under Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE) scheme for a loan up to Rs. 2 crore.

- The fee for this coverage will be paid by the Government.

- In case of FPOs the credit guarantee may be availed from the facility created under FPO promotion scheme of Department of Agriculture, Cooperation & Farmers Welfare (DACFW).

**Management of the fund:**

- It will be managed and monitored through an online Management Information System (MIS) platform.

- The National, State and District level Monitoring Committees will be set up to ensure real-time monitoring and effective feedback.
Insta Curious:
Have you heard about Asymmetric shock? What is it? Reference: read this.

InstaLinks:
Prelims Link:
1. About the Fund.
2. What are FPOs?

3. Rashtriya Gokul Mission:

Context:
A review meeting on the performance of the Rashtriya Gokul Mission was held recently.

What is the Rashtriya Gokul Mission?
‘Rashtriya Gokul Mission’ was launched in 2014 to conserve and develop indigenous bovine breeds, under the National Programme for Bovine Breeding and Dairy Development (NPBBD).

Key objectives of the mission
- Development and conservation of indigenous breeds.
- Undertake breed improvement programme for indigenous cattle breeds so as to improve the genetic makeup and increase the stock.
- Enhance milk production and productivity.
- Upgrade nondescript cattle using elite indigenous breeds like Gir, Sahiwal, Rathi, Deoni, Tharparkar, Red Sindhi.
- Distribute disease free high genetic merit bulls for natural service.

Implementation
1. It is being implemented through the “State Implementing Agency’ Livestock Development Boards, i.e., SIA’s (LDB’s).
2. State Gauseva Ayogs are mandated to sponsor proposals to the SIA’s (LDB’s) and monitor implementation of the sponsored proposal.
3. The “Participating Agencies” like CFSPTI, CCBFs, ICAR, Universities, Colleges, NGO’s, Cooperative Societies and Gaushalas with best germplasm.

What are Gokul Grams?
The Rashtriya Gokul Mission envisages the establishment of integrated cattle development centers, ‘Gokul Grams’ to develop indigenous breeds including up to 40% nondescript breeds.

Gokul Grams will be established in:
- The native breeding tracts and
- Near metropolitan cities for housing the urban cattle.

Objectives:
- Promote indigenous cattle rearing and conservation in a scientific manner.
- Propagate high genetic merit bulls of indigenous breeds.
- Optimize modern Farm Management practices and promote Common Resource Management.
- Utilize animal waste in an economical way i.e. Cow Dung, Cow Urine.

Key features of Gokul Grams
- They will be self-sustaining and will generate economic resources from sale of A2 milk, organic manure, vermi-composting, urine distillates, and production of electricity from bio gas for in house consumption and sale of animal products.
- They will also function as state of the art in situ training centre for Farmers, Breeders and MAITRI’s.
- Gokul Grams act as Centres for development of Indigenous Breeds and a dependable source for supply of high genetic breeding stock to the farmers in the breeding tract.
- The Gokul Gram will maintain milk and unproductive animals in the ratio of 60:40 and will have the capacity to maintain about 1000 animals.
Nutritional requirements of the animals will be provided in the Gokul Gram through in-house fodder production.

Insta Curious: Many States have schemes to protect stray Cattle. Have a brief overview of them [here](#).

InstaLinks:

Prelims Link:
1. What are Gokul Grams?
2. Can they be established in Metropolitan cities?
3. Milch and unproductive animals ratio to be maintained by Gokul Grams.
4. About the National Programme for Bovine Breeding and Dairy Development (NPBBD).
5. When was the Rashtriya Gokul Mission launched?

Mains Link:
Write a note on Rashtriya Gokul Mission.

Topics: Effects of liberalization on the economy, changes in industrial policy and their effects on industrial growth.

1. Apple faces antitrust case in India over apps issue

Context: An anti-trust case filed against Apple Inc for allegedly abusing its market position in the Indian economy.

More on this news:
- Apple is instituting policies that forces developers to use its proprietary in-app purchase system.
- This allegation is similar to what Apple faced in the EU where regulators last year started an investigation into Apple’s imposition of an in-app fee of 30% for distribution of paid digital content and other restrictions.
- Such policies hurt the domestic companies by raising their cost of doing business.
- **Competition Commission of India (CCI)** will review the case and could order its investigations arm to conduct a wider probe, or dismiss it altogether if it finds no merit in it.
- **Note**: Filings and details of cases reviewed by the Competition Commission of India (CCI) are not made public.
- Recently, South Korea’s parliament this week approved a bill that bans major app store operators like Alphabet Inc’s Google and Apple from forcing software developers to use their payment systems.
- **Justification given by the companies for their current policy**: The fees levied by them covers the security and marketing benefits their app stores provide for companies.
- **CCI** is conducting an investigation into a similar payment system concerning Google.

Other significant charges brought against Apple:
1. Restriction on developers to use domestic payment systems which offer services at lower rates of 1-5%.
2. Restriction on developers on informing customers of alternative payment systems.
- In recent times, such restrictions have been loosened. However, this behavior will not have an impact when **CCI** takes up the case for review.

About CCI
It is a statutory body of the Government of India, responsible for enforcing the Competition Act, 2002 throughout India and to prevent activities that have an adverse effect on competition.

Objectives of the Commission:
- To prevent practices having adverse effect on competition.
- To promote and sustain competition in markets.
- To protect the interests of consumers.
- To ensure freedom of trade.
Functions of the commission:
- It is the duty of the Commission to eliminate practices having adverse effect on competition, promote and sustain competition, protect the interests of consumers and ensure freedom of trade in the markets of India.
- The Commission is also required to give opinion on competition issues on a reference received from a statutory authority established under any law and to undertake competition advocacy, create public awareness and impart training on competition issues.

The Competition Act:
The Competition Act, 2002, as amended by the Competition (Amendment) Act, 2007, prohibits anti-competitive agreements, abuse of dominant position by enterprises and regulates combinations (acquisition, acquiring of control and M&A), which causes or likely to cause an appreciable adverse effect on competition within India.

Insta-Curious: Know about EU’s case against Google- Click here

InstaLinks:
Prelims link: What is an anti-trust case?  
CCI- roles, responsibilities and functions  
Important anti-trust related cases  
Competition Commission Act

Mains link: Ensuring a fair competition in the Indian digital market is in the best interest of every stakeholder involved. Comment

Source: The Hindu

2. Insolvency and Bankruptcy Code (IBC):

Context:
The Supreme Court has said “judicial delay” was the main reason for the failure of the insolvency regime in India prior to the 2016 Insolvency and Bankruptcy Code (IBC), as it urged company law tribunals to “strictly adhere” to the timelines under the new law and clear pending resolution plans.

What’s the issue?
The IBC mandates a 330-day outer limit for conclusion of the corporate insolvency resolution process (CIRP).
- However, a parliamentary panel report published last month stated that more than 71% cases have been pending before the tribunals for over 180 days.

Reasons for delays:
1. The national company law appellate tribunal taking considerable time in admitting CIRPs.
2. Multiplicity of litigation.
3. Appeals to the NCLAT and the Supreme Court.

Impacts of such delays:
- Long delays in approving the resolution plan by the adjudicating authority (NCLT) affect the subsequent implementation of the plan.
- These delays, if systemic and frequent, will have an undeniable impact on the commercial assessment that the parties undertake during the course of the negotiation.
- Also, they cause commercial uncertainty, degradation in the value of the corporate debtor and makes the insolvency process inefficient and expensive.

About the IBC:
- The IBC was enacted in 2016, replacing a host of laws, with the aim to streamline and speed up the resolution process of failed businesses.
- The Code also consolidates provisions of the current legislative framework to form a common forum for debtors and creditors of all classes to resolve insolvency.

The Code creates various institutions to facilitate resolution of insolvency. These are as follows:
1. Insolvency Professionals.

www.insightsonindia.com  96  InsightsIAS
2. Insolvency Professional Agencies.
3. Information Utilities.
4. Adjudicating authorities: The National Companies Law Tribunal (NCLT); and the Debt Recovery Tribunal (DRT).
5. Insolvency and Bankruptcy Board.

Insta Curious: The Insolvency and Bankruptcy Code (Amendment) Bill, 2021 proposed ‘pre-packs’ as an insolvency resolution mechanism for Micro, Small and Medium Enterprises (MSMEs). What are ‘pre-packs’?

Reference:

InstaLinks:
Prelims Link:
1. What is insolvency and bankruptcy?
2. Various institutions established under the IBC code.
3. NCLT- composition and functions.
4. What are debt recovery tribunals?
5. Sections 7, 9 and 10 of IBC.

Mains Link: Discuss how suspension of initiation of fresh insolvency proceedings will help shield companies impacted by the outbreak of Covid-19.

Link: https://epaper.thehindu.com/Home/MShareArticle?OrgId=GJN8VNSEK.1&imageview=0.

Topics: Infrastructure: Energy, Ports, Roads, Airports, Railways etc.

1. National Monetisation Pipeline (NMP)

Context: NITI Ayog recommendations to achieve monetisation goal.

NITI Ayog recommendations: to improve retail participation

- To make the National Monetisation Pipeline (NMP) a success, the government should give income tax breaks to attract retail investors into instruments like Infrastructure Investment Trusts (InvITs).
  - Though this will entail a cost in the form of loss of revenue for exchequer, the long-term benefits may outweigh the cost as linking investments in specified bonds with the capital gains exemption had proved to be success in the past.
- Bringing InvITs under the ambit of the Insolvency and Bankruptcy Code (IBC) to provide greater comfort to investors.
  - Since the trusts are not considered as ‘legal person’, the IBC regulations are not applicable for InvIT loans. Hence, the lenders do not have existing process for recourse to project assets.
  - While the lenders are protected under the Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002 (SARFAESI Act) and the Recovery of Debts and Bankruptcy Act, 1993, the provision of recourse under IBC regulations will bring in added level of comfort for the investors.
  - It would help lenders access a faster and more effective debt restructuring and resolution option.

Read about National Monetisation pipeline (NMP) Here:

InstaLinks:
Prelims Link:
1. About NMP.
2. Key features of NMP.
3. Applicability.
Mains Link: Discuss the significance of the National Monetisation Pipeline (NMP) project.

Source: The Hindu

2. Assam govt. unveils electric vehicle policy:

Context:
The Assam government has unveiled an electric vehicle (EV) policy for phasing out vehicles running on fossil fuels by 2030.

Highlights of the Policy:
1. The policy aims to introduce at least 200,000 electric vehicles (EVs) within the next five years through a set of incentives for buyers.
2. It entails converting all government vehicles and fleet of public buses to electric and deploying 2 lakh EVs within the next five years.
3. In order to encourage people to buy EVs, the state government will give a subsidy of ₹20,000 on two-wheelers, ₹50,000 for three-wheelers and ₹1.5 lakh for four-wheelers.
4. There will be 100% exemption of registration fees, road tax and parking fees for EVs.
5. It also envisages charging stations for EVs across the state. Entrepreneurs setting up the stations will get a 90% discount on their electricity bills for the first five years.

Government of India Initiatives to give a boost EV Sector in India:
1. The government aims to see 6 million electric and hybrid vehicles on the roads by 2020 under the National Electric Mobility Mission Plan 2020.
2. Faster Adoption and Manufacturing of Electric Vehicles in India (FAME India Scheme) for improving electric mobility in India.
3. Implementation of smart cities would also boost the growth of electric vehicles.

Challenges ahead:
1. The Indian electric vehicle (EV) market currently has one of the lowest penetration rates in the world.
2. Capital costs are high and the payoff is uncertain.
3. The Indian EV industry has been hit hard due to rupee’s dramatic depreciation in recent months.
4. Local production of inputs for EVs is at just about 35% of total input production.
5. The production will be severely affected in terms of production costs.
6. The Faster Adoption and Manufacturing of (Hybrid) and Electric Vehicles (Fame) framework has been extended repeatedly.
7. An uncertain policy environment and the lack of supporting infrastructure are major roadblocks.
8. India does not have any known reserves of lithium and cobalt, which makes it dependent on imports of lithium-ion batteries from Japan and China.

Need of the hour:
1. For EVs to contribute effectively, we need commensurate efforts in developing an entire ecosystem.
2. Need to shift the focus from subsidizing vehicles to subsidizing batteries because batteries make up 50% of EV costs.
3. Increasing focus on incentivizing electric two-wheelers because two-wheelers account for 76% of the vehicles in the country and consume most of the fuel.
4. A wide network of charging stations is imminent for attracting investment.
5. Work places in tech parks, Public bus depots, and Multiplexes are the potential places where charging points could be installed. In Bangalore, some malls have charging points in parking lots.
6. Corporates could invest in charging stations as Corporate Social Responsibility compliances.
7. Acquiring lithium fields in Bolivia, Australia, and Chile could become as important as buying oil fields as India needs raw material to make batteries for electric vehicles.

Link: https://epaper.thehindu.com/Home/MShareArticle?OrgId=GS48VA9VJ.1&imageview=0.
3. Privatisation of Railways:

**Context:**
The employees union of the North Western Railway (NWR) protested recently against the privatisation of railways announced by Centre recently.

**Rail Privatisation:**

**Objectives of privatisation:**
1. To introduce modern technology rolling stock with reduced maintenance.
2. Reduced transit time.
3. Boost job creation.
4. Provide enhanced safety.
5. Provide world-class travel experience to passengers.
6. Reduce demand-supply deficit in the passenger transportation sector.

**Pros:**
1. **Improved Infrastructure** – It will lead to better infrastructure which in turn would lead to improved amenities for travellers.
2. **Balancing Quality of Service with High Fares** – The move would foster competition and hence lead to overall betterment in the quality of services.
3. **Lesser Accidents** – Because private ownership is synonymous with better maintenance, supporters of privatisation feel that it will reduce the number of accidents, thus resulting in safe travel and higher monetary savings in the long run.

**Cons:**

**Coverage Limited to Lucrative Sectors** – An advantage of Indian Railways being government-owned is that it provides nation-wide connectivity irrespective of profit. This would not be possible with privatisation since routes which are less popular will be eliminated, thus having a negative impact on connectivity.

**Fares** – Given that a private enterprise runs on profit, it is but natural to assume that the easiest way of accruing profits in Indian Railways would be to hike fares, thus rendering the service out of reach for lower income groups. This will defeat the entire purpose of the system which is meant to serve the entire population of the country irrespective of the level of income.

**Accountability** – Private companies are unpredictable in their dealings and do not share their governance secrets with the world at large. In such a scenario it would be difficult to pin the accountability on a particular entity, should there be a discrepancy.

**Recent Decision of Ministry of Railways in this regard:**
1. On July 1, 2020, the Ministry of Railways announced that 151 trains in 109 pairs of routes will be operated by private sectors. It comprises just 5% of the 2,800 Express and Mail services operated by Indian Railways.
2. Private trains will start operating tentatively in 2023 and in 12 clusters.
3. Private companies will be given the freedom to procure locomotives and trains from their source of choice.
4. Railways has invited Request for Qualifications proposals, for scrutiny of vendor capabilities, from those who can bring modern trains for operations on existing rail infrastructure.
Insta Curious: Do you know about India’s first private train? Is it still in operation today? Reference: read this.

InstaLinks:

Prelims Link:
1. When were Railway and General budgets merged?
2. India’s first private train.

Mains Link: Discuss the significance of privatisation of railways and challenges involved therein.

4. Shoonya Campaign:

Context:
Recently, NITI Aayog and Rocky Mountain Institute (RMI) and RMI India have launched the Shoonya Campaign. RMI is an independent nonprofit organization founded in 1982.

About the Campaign:
- It is an initiative to promote zero-pollution delivery vehicles by working with consumers and industry.
- The campaign will promote the adoption of electric vehicles (EVs) in the urban deliveries segment and create consumer awareness about the health, environmental and economic benefits of electric vehicles.
- As part of the campaign, a corporate branding and certification programme is being launched to recognise and promote the industry’s efforts towards transitioning to EVs for final-mile deliveries.

Government of India Initiatives to give a boost EV Sector in India:
1. The government aims to see 6 million electric and hybrid vehicles on the roads by 2020 under the National Electric Mobility Mission Plan 2020.
2. Faster Adoption and Manufacturing of Electric Vehicles in India (FAME India Scheme) for improving electric mobility in India.
3. Implementation of smart cities would also boost the growth of electric vehicles.

Challenges ahead:
1. The Indian electric vehicle (EV) market currently has one of the lowest penetration rates in the world.
2. Capital costs are high and the payoff is uncertain.
3. The Indian EV industry has been hit hard due to rupee’s dramatic depreciation in recent months.
4. Local production of inputs for EVs is at just about 35% of total input production.
5. The production will be severely affected in terms of production costs.
6. The Faster Adoption and Manufacturing of (Hybrid) and Electric Vehicles (Fame) framework has been extended repeatedly.
7. An uncertain policy environment and the lack of supporting infrastructure are major roadblocks.
8. India does not have any known reserves of lithium and cobalt, which makes it dependent on imports of lithium-ion batteries from Japan and China.

Need of the hour:
1. For EVs to contribute effectively, we need commensurate efforts in developing an entire ecosystem.
2. Need to shift the focus from subsidizing vehicles to subsidizing batteries because batteries make up 50% of EV costs.
3. Increasing focus on incentivizing electric two-wheelers because two-wheelers account for 76% of the vehicles in the country and consume most of the fuel.
4. A wide network of charging stations is imminent for attracting investment.
5. Work places in tech parks, Public bus depots, and Multiplexes are the potential places where charging points could be installed. In Bangalore, some malls have charging points in parking lots.
6. Corporates could invest in charging stations as Corporate Social Responsibility compliances.
7. Acquiring lithium fields in Bolivia, Australia, and Chile could become as important as buying oil fields as India needs raw material to make batteries for electric vehicles.
1. National Engineer’s day:

Context:
Every year on September 15, India along with Sri Lanka and Tanzania celebrate National Engineer’s day to recognise and honour the achievements of the great engineer Mokshagundam Visvesvaraya. The day is observed to commemorate the great work of engineers and to encourage them for improvement and innovation.

This year marks the 160th birth anniversary of M Visvesvaraya who was born on September 15, 1861, in the Muddenahalli village of Karnataka.

About Sir M Visvesvaraya:
- An expert in irrigation techniques and flood disaster management, Sir MV was not just a great civil engineer but also served as the 19th Diwan of Mysore from 1912 to 1919.
- While serving as the Diwan of Mysore, in 1915 he was awarded ‘Knight’ as a commander of the British Indian Empire by King George V.

Key contributions:
1. Patented and installed an irrigation system with water floodgates at the Khadakvasla reservoir near Pune to raise the food supply level and storage to the highest levels known as ‘block system’ in 1903.
2. The same system was also installed at Gwalior’s Tigrá Dam and Mysuru’s Krishnaraja Sagara (KRS) dam, the latter of which created one of the largest reservoirs in Asia at the time.
3. He played an important role in the foundation of Government Engineering College at Bangalore in 1917. The college was later renamed after him as University Visvesvaraya College of Engineering (UVCE).
4. He is the one who designed a plan for road construction between Tirumala & Tirupati.
5. He played a key role in developing a system to protect Visakhapatnam port from sea erosion.
6. He also commissioned several new Railway lines in Mysore state.
7. He had designed and carried out the waterworks for the Municipality of Sukkur in 1895.

Legacy:
- For his contribution to the building of India, the government awarded him with India’s highest honor ‘Bharat Ratna’ in 1955.
- In 2018, Google launched a Doodle on his birthday to celebrate his genius works whose endeavors led to the Tata Steel engineers invent an armored vehicle that was used in WWII and could withstand bullets.
- He was awarded an Honorary Membership of London Institution of Civil Engineers for an unbroken 50 years.

Books Written by him:
'Reconstructing India' and 'Planned Economy of India'.

Insta Curious: Did you know that the National Engineering Day is different from the World Engineering Day celebrated annually by UNESCO on 4th March? Reference: read this.

2. Isothermal Forging Technology:

Context:
DRDO has developed Critical near Isothermal Forging Technology for aeroengines.

What is isothermal forging?
Isothermal forging is a **closed-die process** in which the **dies and the workpieces are heated to the same temperature**, so that forming can take place without loss of temperature in the workpiece.

- It’s a **preferred process for forming engineered parts**, including jet-engine and other aerospace components in high-density lightweight alloys.
- In this process, the **workpiece is formed to shape at a slow rate** and at a temperature almost equal to that of the heated die.
- The **long forging time**, alongside forces exerted by the die, help to form an almost ‘ready to use’ component needing minimal supplementary machining.

**Significance:**
- This is a crucial technology for establishing self-reliance in aeroengine technology.
- With this development, India has joined the league of limited global engine developers to have the manufacturing capabilities of such critical aero engine components.

**Insta Curious:** What is Quantum key distribution (QKD)? It was recently demonstrated by DRDO. Read about it [here](#).

### 3. Global Innovation Index 2021:

**Context:**
India has climbed two spots and **has been ranked 46th** by the **World Intellectual Property Organization (WIPO)** in the Global Innovation Index 2021 rankings.

- India has been on a rising trajectory, over the past several years in the Global Innovation Index (GII), from a rank of 81 in 2015 to 46 in 2021.

**Significance:**
- The consistent improvement in the GII ranking is owing to the immense knowledge capital, the vibrant start-up ecosystem, and the amazing work done by the public and the private research organizations.
- The **Scientific Departments** like the Department of Atomic Energy; the Department of Science and Technology; the Department of Biotechnology and the Department of Space have played a pivotal role in enriching the National Innovation Ecosystem.

The top 10 countries in GII ranking for 2021:

<table>
<thead>
<tr>
<th>Ranking</th>
<th>Country/Territory</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Switzerland</td>
</tr>
<tr>
<td>2</td>
<td>Sweden</td>
</tr>
<tr>
<td>3</td>
<td>United States</td>
</tr>
<tr>
<td>4</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>5</td>
<td>South Korea</td>
</tr>
<tr>
<td>6</td>
<td>Netherlands</td>
</tr>
<tr>
<td>7</td>
<td>Finland</td>
</tr>
<tr>
<td>8</td>
<td>Singapore</td>
</tr>
<tr>
<td>9</td>
<td>Denmark</td>
</tr>
<tr>
<td>10</td>
<td>Germany</td>
</tr>
</tbody>
</table>

**Global Innovation Index:**
The Global Innovation Index (GII) is an annual ranking of countries by their capacity for, and success in, innovation.

- It is published by Cornell University, INSEAD, and the World Intellectual Property Organization, in partnership with other organisations and institutions.
- It is based on both subjective and objective data derived from several sources, including the International Telecommunication Union, the World Bank and the World Economic Forum.
- The index was started in 2007 by INSEAD and World Business, a British magazine.
- The GII is commonly used by corporate and government officials to compare countries by their level of innovation.

**Insta Curious:** Do you know about India Innovation Index released by NITI Aayog? Reference: read [this](#).
InstaLinks: Prelims Link:
1. Global Innovation Index is released by?
2. When was the first edition released?
3. Theme for 2021.
4. Performance of India this year.
5. Global performance.
6. Top 10 countries in the index.

Mains Link: Discuss the features and significance of the Global Innovation Index.

Topics: Awareness in space.

1. NASA’s Perseverance rover

Context: NASA’s Perseverance rover has successfully collected its first rock sample for return to Earth. NASA has called it a perfect core sample.
- NASA plans to launch more spacecraft to retrieve the samples collected by Perseverance.
- Perseverance arrived in February 2021 at Mars’ Jezero Crater, the site on an ancient lake— in search of rocks that might hold evidence of ancient life.

Why is this mission significant?
- It carried a unique instrument, MOXIE or Mars Oxygen ISRU Experiment: which for the first time manufactured molecular oxygen on Mars using carbon dioxide from the carbon-dioxide-rich atmosphere (ISRU means In Situ Resource Utilization: or the use of local resources to meet human needs or requirements of the spacecraft).
- It carried Ingenuity, the first ever helicopter to fly on Mars.
- It is the planned first step to bring back rock samples from Mars for analysis in sophisticated laboratories on Earth: with the goal of looking for biosignatures: or signatures of present or past life.

These are some of the key mission objectives:
- Look for signs of ancient microbial life.
- Collect Martian rock and dust samples for later return to Earth.
- Deliver an experimental helicopter.
- Study the climate and geology of Mars.
- Demonstrate technology for future Mars missions.

What is the reason for the near-term interest in Mars?
- Mars is located in the very near backyard (about 200 million km away).
- It is a planet that humans can aspire to visit or to stay for a longer duration.
- Mars had flowing water and an atmosphere in the distant past: and perhaps conditions to support life.
- It also has implications for commercial travel.

Insta Curious: Know about Mars in brief – the history, atmosphere, gravity and explorations Click here

InstaLinks: Prelims Link:
- Missions to Mars.
- Perseverance- objectives.
- Instruments onboard.
- About the UAE’s Hope and China’s Tianwen-1 spacecraft.
- Pathfinder mission.

Mains Link: Discuss the significance of the mission.

Source: The Hindu

2. Inspiration4: SpaceX’s first all-civilian space mission:

Context:
Entrepreneur Elon Musk’s SpaceX recently announced that ‘Inspiration4’, its first all-civilian, non-governmental spaceflight, is on track for launch on September 15.
● The Crew Dragon spacecraft is set to be launched from NASA’s Kennedy Space Centre in Florida in the US.
● It will take a group of four private citizens into space for three days.

Who will travel?
● All four seats on the spacecraft have been purchased by US billionaire Jared Isaacman, founder of the fintech company Shift4 Payments.
● This is a part of an effort to raise millions for the Tennessee-based St. Jude Children’s Research Hospital, a paediatric treatment and research facility that focuses on children’s catastrophic diseases, particularly leukaemia and other cancers.

What is Inspiration4?
The mission involves circling the Earth for three days, and then splashing down into the Atlantic Ocean.
● Inspiration4 will orbit the Earth at 575km, higher than the International Space Station (408km) and the Hubble space telescope (547km).
● This will be the farthest distance travelled by a crewed mission since 2009, when astronauts last went to repair the Hubble.
● The Dragon module that the group will be using has also been modified for the mission.

Why is the journey significant?
● According to the reports, the journey will present an opportunity for collecting large amounts of health data that will aid in planning future crewed space missions.
● This will also help in assessing behavioural and cognitive changes over the journey.
Along with the recent space journeys by billionaires Jeff Bezos and Richard Branson, Inspiration4 is seen as part of an effort to open up space travel to non-professionals.

Insta Curious: Do you know about SpaceX’s starship? Why is it significant? Read this.

InstaLinks:
Prelims Link:
1. About Artemis space mission.
2. Objectives.
3. About Starship.
4. Important interplanetary space missions.
5. About Inspiration4.

3. Findings of Chandrayaan-2:
Context:
The Orbiter and other instruments of Chandrayaan-2 mission have, in two years, gathered a wealth of new information that has added to our knowledge about the Moon and its environment.

What happened to Chandrayaan-2?
● Chandrayaan-2, India’s second mission to the Moon, had failed to make a soft-landing on the lunar surface.
● The lander and rover malfunctioned in the final moments and crash-landed, getting destroyed in the process.

But, why is this mission still relevant?
Despite the failure, the mission's orbiter and other parts have been functioning normally, gathering information. Recently, the Indian Space Research Organisation (ISRO) released the information gathered by the scientific payloads till now, some of which were still to be analysed and assessed.

www.insightsonindia.com
What is the information gathered?

Presence of water molecules on moon: The mission has given the most precise information about the presence of H2O molecules on the Moon till date.

Presence of Minor elements: Chromium, manganese and Sodium have been detected for the first time through remote sensing. The finding can lay the path for understanding magmatic evolution on the Moon and deeper insights into the nebular conditions as well as planetary differentiation.

Information about solar flares: A large number of microflares outside the active region have been observed for the first time, and according to ISRO, this “has great implications on the understanding of the mechanism behind heating of the solar corona”, which has been an open problem for many decades.

Exploration of the permanently shadowed regions as well as craters and boulders underneath the regolith, the loose deposit comprising the top surface extending up to 3-4m in depth. This is expected to help scientists to zero in on future landing and drilling sites, including for human missions.

Chandrayaan-2 Mission:
The Chandrayaan-2 mission, which was lost after it hard landed on the dark side of the Moon in 2019, remains active in the form of its orbiter hovering over the Moon. Scientists used the Solar X-ray Monitor (XSM) onboard Chandrayaan-2 in September 2019 to study the Sun.

- The primary objective of Chandrayaan 2 was to demonstrate the ability to soft-land on the lunar surface and operate a robotic rover on the surface.
- The mission consisted of an Orbiter of the Moon, Vikram (after Vikram Sarabhai) - the lander and Pragyan (wisdom) - the rover, all equipped with scientific instruments to study the moon.

Insta Curious: Did you know that even before Chandrayaan-2, many missions have revealed information regarding the presence of water on the moon? These include: Chandrayaan-1, NASA missions Clementine and Lunar Prospector. Know more about them.

InstaLinks:

Prelims Link:
2. Objectives.
3. Instruments onboard.

Mains Link: Discuss the significance of Chandrayaan-2 mission.


4. UDAN scheme:

Context:
The Civil Aviation Ministry has announced its agenda over the next 100 days. It includes:
1. Launching 50 new routes under the UDAN scheme.
2. Rationalising the value added tax (VAT) charged on aviation turbine fuel (ATF).

About UDAN scheme (Ude Desh Ka Aam Nagrik) Scheme:
- The scheme is aimed at enhancing connectivity to remote and regional areas of the country and making air travel affordable.
● It is a key component of Centre’s National Civil Aviation Policy led by Prime Minister Narendra Modi and launched in June 2016.
● Under the scheme, nearly half of the seats in Udan flights are offered at subsidised fares, and the participating carriers are provided a certain amount of viability gap funding (VGF) - an amount shared between the Centre and the concerned states.
● The scheme will be jointly funded by the central government and state governments.
● The scheme will run for 10 years and can be extended thereafter.

UDAN 4.0:
● The 4th round of UDAN was launched in December 2019 with a special focus on North-Eastern Regions, Hilly States, and Islands.
● The airports that had already been developed by Airports Authority of India (AAI) are given higher priority for the award of VGF (Viability Gap Funding) under the Scheme.
● Under UDAN 4, the operation of helicopters and seaplanes is also been incorporated.

Insta Curious: Did you know that the ATF is not within the ambit of the Goods and Services Tax (GST)? More about items not covered under GST: read this.

InstaLinks:
Prelims Link:
1. When was UDAN scheme launched?
2. Implementation and funding of the scheme.
3. Overview of the National Civil Aviation Policy.

Mains Link:
1. Under the scheme, who provides Viability Gap Funding (VGF) to subsidise the airfare?
2. Role of state governments under the scheme.
3. Discuss the performance of UDAN scheme.

Link: https://epaper.thehindu.com/Home/MShareArticle?OrgId=G1P8VDRPP.1&imageview=0

5. Gaganyaan:

Context:
Australia will support India’s ‘Gaganyaan’ mission by tracking it through Cocos Keeling island.

Significance:
There are blind spots due to which there is a possibility of not receiving signals, sources said. The data relay satellite tracking from Cocos Keeling island is expected to help address the issue.

Need for:
Satellites in orbit cannot pass along their information to the ground stations on Earth if it does not have a clear view of the ground station. A data relay satellite serves as a way to pass along the satellite's information.

When was it announced?
● Formal announcement of the Gaganyaan programme was made by Prime Minister Narendra Modi during his Independence Day address on August 15, 2018.
● The initial target was to launch the human spaceflight before the 75th anniversary of India’s independence on August 15, 2022.

Objectives:

www.insightsonindia.com 106 InsightsIAS
The objective of the Gaganyaan programme is to demonstrate the capability to send humans to low earth orbit on board an Indian launch vehicle and bring them back to earth safely.

**Preparation and launch:**
1. Four Indian astronaut-candidates have already undergone generic space flight training in Russia as part of the Gaganyaan programme.
2. ISRO’s heavy-lift launcher **GSLV Mk III** has been identified for the mission.

**Relevancy of a Manned Space Mission for India:**

- **Boost to industries:** The Indian industry will find large opportunities through participation in the highly demanding Space missions. Gaganyaan Mission is expected to source nearly 60% of its equipment from the Indian private sector.
- **Employment:** According to the ISRO chief, the Gaganyaan mission would create 15,000 new employment opportunities, 13,000 of them in private industry and the space organisation would need an additional manpower of 900.
- **Spurs research and development:** It will thrust significant research in areas such as materials processing, astro-biology, resources mining, planetary chemistry, planetary orbital calculus and many other areas.
- **Motivation:** Human space flight will provide that inspiration to the youth and also the national public mainstream. It would inspire the young generation into notable achievements and enable them to play their legitimate role in challenging future activities.
- **Prestige:** India could potentially become the fourth country to launch a human space mission. The Gaganyaan will not only bring about prestige to the nation but also establish India’s role as a key player in the space industry.

**Insta Curious:** Do you know about the Mir Space Station? [Read Here](Read Briefly)

**InstaLinks:**
- **Prelims Link:**
  1. About Gaganyaan.
  2. Objectives.
  3. About GSLV.
- **Mains Link:**
  Why is Gaganyaan mission significant for India? Discuss.

6. **Parker Solar Probe**

**Context:**
Scientists using data from NASA’s Parker Solar Probe have assembled the most complete picture yet of the inner structure and behavior of the large cloud of space dust, known as the zodiacal cloud, that swirls throughout the solar system.

They found three dust populations in the cloud:
1. Most of the grains are being slowly pulled in toward the Sun (alpha-meteoroids).
2. The second population is generated as grains in the swirling cloud collide, creating fragments so small that they are pushed out of the solar system in all directions by pressure from sunlight (beta-meteoroids).
3. A third group, probably created when a “tube” of cometary debris collides with grains from the first two populations, is scattered out in a distinctive wedge shape.

**What are zodiacal clouds?**
- The sources of zodiacal clouds/interplanetary dust particles (IDPs) include at least: asteroid collisions, cometary activity and collisions in the inner Solar System, Kuiper belt collisions, and interstellar medium grains.
- It scatters sunlight in a way that can be seen with the naked eye, but only on very dark, clear nights, as moonlight or light from cities both easily outshine it.
- Thickest near the sun and thinnest near the edges of the solar system, the zodiacal cloud looks smooth to the naked eye, but infrared wavelengths reveal bright streaks and ribbons that can be traced back to their sources: comets and asteroids.
About the mission:
- NASA’s historic Parker Solar Probe mission will revolutionize our understanding of the sun, where changing conditions can propagate out into the solar system, affecting Earth and other worlds.
- Parker Solar Probe will travel through the sun’s atmosphere, closer to the surface than any spacecraft before it, facing brutal heat and radiation conditions — and ultimately providing humanity with the closest-ever observations of a star.

Journey:
In order to unlock the mysteries of the sun’s atmosphere, Parker Solar Probe will use Venus’ gravity during seven flybys over nearly seven years to gradually bring its orbit closer to the sun. The spacecraft will fly through the sun’s atmosphere as close as 3.9 million miles to our star’s surface, well within the orbit of Mercury and more than seven times closer than any spacecraft has come before.

Parker Solar Probe has three detailed science objectives:
1. Trace the flow of energy that heats and accelerates the solar corona and solar wind.
2. Determine the structure and dynamics of the plasma and magnetic fields at the sources of the solar wind.
3. Explore mechanisms that accelerate and transport energetic particles.

InstaLinks:
Prelims Link:
1. About the Solar Parker Probe.
2. What are Solar Flares?
3. Sun’s Corona.

Mains Link: Discuss how Solar Flares influence earth’s environment.

7. NASA’s VIPER Mission:
Context:
NASA has chosen a landing site for the Volatiles Investigating Polar Exploration Rover (VIPER).
- The site is on the western edge of Nobile crater, near the lunar south pole. The crater was named after Italian polar explorer Umberto Nobile.

Background:
NASA, in July 2021, announced that it will launch its Volatiles Investigating Polar Exploration Rover, or VIPER, in 2023.
- NASA is undertaking the mission to understand if it is possible for human life to sustain there, by using locally available resources.

About the mission:
- VIPER is a mobile robot.
- It is the first resource mapping mission on any other celestial body.
- NASA’s Commercial Lunar Payload Services (CLPS) will be providing the launch vehicle and lander for what’s going to be a 100-day mission.

Objectives of the mission:
1. To explore the Moon’s South Pole region.
2. Help create lunar resource maps.
3. Evaluate the concentration of water as well as other potential resources on its surface.

www.insightsonindia.com
Significance of the mission:
VIPER’s findings will inform “future landing sites under the Artemis program by helping to determine locations where water and other resources can be harvested” to sustain humans over extended stays.

Insta Curious: Do you know about NASA’s Artemis programme which seeks to establish a sustainable human presence on the surface of the Moon by 2028? Reference:

8. Chang’e-5 probe:

Context:
Early-stage findings of Chang’e-5 probe, which use geological mapping to link 'exotic' fragments in the collected samples to features near the landing site, were recently presented by China.

Background:
Chinese spacecraft carrying rocks and soil from the moon had begun its journey back to Earth in December 2020, putting China on course to become the first country to successfully retrieve lunar samples since the 1970s.

Where was it landed?
The Chang’e-5 landing site is located on the western edge of the nearside of the Moon in the Northern Oceanus Procellarum. This is one of the youngest geological areas of the Moon with an age of roughly two billion years. The materials scraped from the surface comprise a loose soil that results from the fragmentation and powdering of lunar rocks over billions of years due to impacts of various sizes.

Latest findings:
1. Ninety percent of the materials collected by Chang’e-5 likely derive from the landing site and its immediate surroundings, which are of a type termed ‘mare basalts’.
2. These volcanic rocks are visible to us as the darker gray areas that spilled over much of the nearside of the Moon as ancient eruptions of lava.
3. Yet ten percent of the fragments have distinctly different, 'exotic' chemical compositions, and may preserve records of other parts of the lunar surface as well as hints of the types of space rocks that have impacted the Moon's surface.
4. Potential sources of beads of rapidly cooled glassy material: Researchers have traced these glassy droplets to now extinct volcanic vents known as 'Rima Mairan’ and 'Rima Sharp' located roughly 230 and 160 kilometers southeast and northeast of the Chang’e-5 landing site. These fragments could give insights into past episodes of energetic, fountain-like volcanic activity on the Moon.

What Next?
A successful landing in Inner Mongolia made China only the third country to have retrieved lunar samples after the United States and the Soviet Union.
- The plan was to collect 2 kg (4.4 lbs) of samples, although it has not been disclosed how much was actually gathered.

When was it launched?
The Chang’e-5 was launched on Nov. 24 and a lander vehicle touched down on the moon on Dec. 1. The mission was expected to take around 23 days in total.
The objective of the mission was to bring back lunar rocks, the first attempt by any nation to retrieve samples from the moon in four decades.

About Chang’e-5 probe:
It is an unmanned spacecraft by China. The probe is named after the mythical Chinese moon goddess. The rocket comprises four parts: an orbiter, a returner, an ascender and a lander.

The Chang’e-5 mission is expected to realize four “firsts” in China’s space history:
1. The first time for a probe to take off from the surface of the Moon.
2. The first time to automatically sample the lunar surface.
3. The first time to conduct unmanned rendezvous and docking in lunar orbit.
4. The first time to return to Earth with lunar soil samples in escape velocity.

Insta Curious: Know about various missions to the moon here.

InstaLinks:
Prelims Link:
1. About the Mission.
2. Objectives.
3. Significance of the mission.
4. Past such missions by other countries.

9. What is dark energy?

Context:
Recently, an international team of researchers made the first direct detection of dark energy.
- They noticed certain unexpected results in the XENON1T experiment and write that dark energy may be responsible for it.

What is Dark Energy?
More is unknown than is known. We know how much dark energy there is because we know how it affects the universe’s expansion. Other than that, it is a complete mystery. But it is an important mystery. It makes up about 68% of the universe.

Dark Energy is a hypothetical form of energy that exerts a negative, repulsive pressure, behaving like the opposite of gravity.
- It is causing the rate of expansion of our universe to accelerate over time, rather than to slow down. That’s contrary to what one might expect from a universe that began in a Big Bang.

How is dark energy different from dark matter?
Everything we see — the planets, moons, massive galaxies — makes up less than 5% of the universe. About 27% is dark matter and 68% is dark energy.
While dark matter attracts and holds galaxies together, dark energy repels and causes the expansion of our universe.
- The existence of dark matter was suggested as early as the 1920s, while dark energy wasn’t discovered until 1998.

About the XENON1T experiment:
- It is the world’s most sensitive dark matter experiment and was operated deep underground at the INFN Laboratori Nazionali del Gran Sasso in Italy.
- It uses the dual-phase (liquid/gas) xenon technique and is located underground at the Laboratory Nazionali del Gran Sasso of INFN, Italy.

The theory of general relativity:
The leading theory, however, considers dark energy a property of space. Albert Einstein was the first to understand that space was not simply empty. He also understood that more space could continue to come into existence. In his theory of general relativity, Einstein included a cosmological constant to account for the stationary universe scientists thought existed.
- After Hubble announced the expanding universe, Einstein called his constant his "biggest blunder."
• But Einstein’s blunder may be the best fit for dark energy. Predicting that empty space can have its own energy, the constant indicates that as more space emerges, more energy would be added to the universe, increasing its expansion.

Insta Curious: Do you know about LUX-Zeplin and PandaX-xT experiments? Reference: read this.

Link: https://indianexpress.com/article/explained/what-is-dark-energy-have-scientists-detected-it-finally-7534930/lite/.

10. Landsat 9:

Context:
Landsat 9 was recently launched by NASA.

About Landsat 9:
• It is an Earth monitoring satellite.
• It is a joint mission of NASA and the US Geological Survey (USGS).
• Together with Landsat 8, it will collect images of Earth’s surface. It takes 8 days to capture the whole Earth.
• It is the most technologically advanced satellite of its generation. It can see more colour shades with greater depths than the previous satellites, helping scientists capture more details about our ever-changing planet.
• The instruments aboard Landsat 9 are the Operational Land Imager 2 (OLI-2) and the Thermal Infrared Sensor 2 (TIRS-2). They will measure different wavelengths of light reflected off the Earth’s surface.

About the Landsat series:
The first Landsat satellite was launched in 1972 and since then, Landsat satellites have collected images of our planet and helped understand how land usage has changed over the decades.

Significance and applications of Landsat missions:
In 2008, it was decided that all Landsat images will be free and publicly available and the policy has helped scores of researchers, farmers, policy analysts, glaciologists, and seismologists. Landsat images have been used to study the health of forests, coral reefs, monitor water quality and melting glaciers.

How will the satellite help monitor climate change?
1. If a forest is affected by drought, it will be seen in Landsat images and can help the researchers decode the areas at risk.
2. Similarly during a wildfire, the Landsat images will capture the plumes of smoke and help study the extent of a burning.
3. The satellite images can also help recovery experts plan sites for replanting.
4. Landsat images can also help identify water bodies affected by potentially harmful algal blooms.

Insta Curious: Have you heard about the PRISMA Earth observation satellite? Which country has launched it? What are its objectives? Reference: read this.

InstaLinks:

Prelims Link:
1. What is radar imaging?
2. What are earth-observation satellites?
3. Differences between GSLV and PSLV.
5. Differences between low earth orbit and geostationary orbits.

Mains Link:
Why is the Polar Satellite Launch Vehicle (PSLV) one of the world’s most reliable space launch vehicles? How is it helping India commercially and technologically?

Link: https://indianexpress.com/article/explained/landsat-9-nasa-satellite-climate-change-explained-7539631/lite/.

www.insightsonindia.com 111 InsightsIAS
1. India’s coronavirus genome sequencing system

Context: Novel Coronavirus Sequencing and analysis has declined sharply in India.
- The number of coronavirus samples sequenced and analysed in India has dropped.
- India formed the Indian SARS-CoV-2 Consortium on Genomics (INSACOG), a consortium of genome sequencing labs, in December 2020.
- While announcing INSACOG, the central government aimed to analyse 5 per cent of all positive samples. This method is known as ‘randomised surveillance’.

Purpose of sequencing
- The main purpose of sequencing is surveillance. It helps to get the true picture of prevailing variants, emerging variants (like delta) and those causing reinfection.
- Currently there are four ‘Variants of concern’ (VoCs) — Alpha (emerged in the UK), Beta (emerged in Brazil), Gama (emerged in South Africa) and Delta (emerged in India).
- WHO has stressed on the fact that data of sequencing should be submitted to open-access platforms like GISAID, so that a sequence done in one part of the world can be looked at by the global scientific community.

What is genome sequencing?
- A genome is an organism’s complete set of DNA, including all of its genes. Genomics is an interdisciplinary field of science focusing on the structure, function, evolution, mapping, and editing of genomes.
- Genomics also involves the sequencing and analysis of genomes through uses of high throughput DNA sequencing.
- Advances in genomics have triggered a revolution in discovery-based research and systems biology to facilitate understanding of even the most complex biological systems such as the brain.

Need for genome sequencing:
- Mapping the diversity of India’s genetic pool will lay the bedrock of personalised medicine and put it on the global map.
- Considering the diversity of population in our country, and the disease burden of complex disorders, including diabetes, mental health, etc., once we have a genetic basis, it may be possible to take action before the onset of a disease.

About Indian SARS-CoV-2 Consortium on Genomics (INSACOG):
- The Indian SARS-CoV-2 Genomics Consortium (INSACOG) is jointly initiated by the Union Ministry of Health and Family Welfare, and Department of Biotechnology (DBT) with Council for Scientific & Industrial Research (CSIR) and Indian Council of Medical Research (ICMR).
- It is a consortium of 28 National Laboratories to monitor the genomic variations in the SARS-CoV-2.
- It carries out whole genome sequencing of SARS-CoV-2 virus across the nation, aiding in understanding the spread and evolution of the virus.
- INSACOG also aims to focus on sequencing of clinical samples to understand the disease dynamics and severity.

About GISAID (Global initiative on sharing avian influenza data):
- GISAID, established in 2008, provides open-access to genomic data of influenza viruses and the coronavirus responsible for the COVID-19 pandemic.
- The genome sequences of SARS-CoV-2 available on GISAID enabled global responses to the pandemic, including the development of the first vaccines and diagnostic tests.

About the Genomics for Public Health in India (IndiGen) programme:
- CSIR initiated the Program in April 2019.
● It aims to **undertake whole genome sequencing** of thousands of individuals representing diverse ethnic groups from India.

● The objective is to enable genetic epidemiology and develop public health technologies applications using population genome data.

---

InstaLinks:

**Prelims Link:**
1. About Genome Sequencing
2. Applications of Genome Sequencing
3. About Indian SARS-CoV-2 Consortium on Genomics (INSACOG)

**Mains Link:** Significance, need and challenges in Genome Sequencing.

**Source:** *Down to Earth*

---

### 2. Mu variant of coronavirus

**Context:** World Health Organization (WHO) has classified another SARS-CoV-2 variant — B.1.621 — as a **variant of interest (VOI)** and has called it **Mu variant.**

- **The four other variants of interest are Eta, Iota, Kappa and Lambda.**
- **Mu variant was first found in Colombia in January 2021, and has been found in about 39 countries so far.**
- **There have been few reported cases of the Mu variant and some larger outbreaks have been reported from countries in South America and in Europe.**

**What is Variant of interest (VOI)?**

- A VOI is classified based on factors such as **genetic changes** that **affect virus characteristics** such as transmissibility, disease severity, immune escape etc.
- A VOI represents a **lower level of concern than a variant of concern (VOC)** such as Alpha, Beta, Gamma and **Delta.**
- Variant of concern are associated with factors such as an increase in transmissibility or detrimental change in epidemiology, etc.

**How do variants of a virus emerge and why?**

- Variants of a virus have one or more mutations that differentiate it from the other variants that are in circulation.
Essentially, the goal of the virus is to reach a stage where it can cohabitate with humans because it needs a host to survive.

Errors in the viral RNA are called mutations, and viruses with these mutations are called variants. Variants could differ by a single or many mutations.

What is a mutation?
- A mutation means a change in the genetic sequence of the virus.
- In the case of SARS-CoV-2, which is a Ribonucleic acid (RNA) virus, a mutation means a change in the sequence in which its molecules are arranged.
- A mutation in an RNA virus often happens when the virus makes a mistake while it is making copies of itself.

InstaLinks
Prelims Link:
1. Variants of Coronavirus
2. What is Variant of interest (VOI)?
3. What is Variant of Concern (VOC)?
4. What is Mutation?

Mains Link: Discuss the concerns associated with mutations of Covid-19 virus.

Source: Indian Express

3. Cryptocurrency and related issues:
Context:
RBI Governor Shaktikanta Das recently said the central bank continues to have “serious and major” concerns about cryptocurrencies like Bitcoin and has conveyed them to the government.

Background:
Private cryptocurrencies like Bitcoin, which are unregulated, mined through a complex process and have highly volatile prices, are under the regulatory gaze in India despite their proliferation as an asset class.

Present status of Cryptocurrencies in India:
- An inter-ministerial panel on cryptocurrency has recommended that all private cryptocurrencies, except any virtual currencies issued by state, will be prohibited in India.
- The Reserve Bank of India (RBI) has also raised concerns on the cryptocurrencies traded in the market and conveyed them to the Centre.
- Back in March 2020, the Supreme Court had allowed banks and financial institutions to reinstate services related to cryptocurrencies by setting aside the RBI’s 2018 circular that had prohibited them (Based on the ground of "proportionality").

What are Cryptocurrencies?
Cryptocurrencies are digital currencies in which encryption techniques are used to regulate the generation of units of currency and verify the transfer of funds, operating independently of a central bank.
Examples: Bitcoin, Ethereum etc.
Why is the RBI against the use of cryptocurrencies?
1. **Sovereign guarantee:** Cryptocurrencies pose risks to consumers. They do not have any sovereign guarantee and hence are not legal tender.
2. **Market volatility:** Their speculative nature also makes them highly volatile. For instance, the value of Bitcoin fell from USD 20,000 in December 2017 to USD 3,800 in November 2018.
3. **Risk in security:** A user loses access to their cryptocurrency if they lose their private key (unlike traditional digital banking accounts, this password cannot be reset).
4. **Malware threats:** In some cases, these private keys are stored by technical service providers (cryptocurrency exchanges or wallets), which are prone to malware or hacking.
5. Money laundering.

SC Garg Committee recommendations (2019):
1. Ban anybody who mines, hold, transact or deal with cryptocurrencies in any form.
2. It recommends a jail term of one to 10 years for exchange or trading in digital currency.
3. It proposed a monetary penalty of up to three times the loss caused to the exchequer or gains made by the cryptocurrency user whichever is higher.
4. However, the panel said that the government should keep an open mind on the potential issuance of cryptocurrencies by the Reserve Bank of India.

**Insta Curious:** Have you heard about the IOTA Tangle? Reference:

**InstaLinks:**

**Prelims Link:**
1. Various cryptocurrencies.
2. Cryptocurrencies launched by various countries.
3. What is Blockchain technology?

**Mains Link:** What are Cryptocurrencies? Why is there a need for regulation? Discuss.

Link: [https://epaper.thehindu.com/Home/MShareArticle?OrgId=G6D8VE300.1&imageview=0](https://epaper.thehindu.com/Home/MShareArticle?OrgId=G6D8VE300.1&imageview=0)

**4. CRISPR to control growth of mosquitoes:**

**Context:**
Researchers from California have developed CRISPR-based system to safely restrain mosquito vectors via sterilization. It is called the new precision-guided sterile insect technique, or pgSIT.

**How it works?**
pgSIT is a new scalable genetic control system that uses a CRISPR-based approach to engineer deployable mosquitoes that can suppress populations.
- It alters genes linked to male fertility — creating sterile offspring — and female flight in Aedes aegypti, the mosquito species responsible for spreading wide-ranging diseases including dengue fever, chikungunya, and Zika.
- pgSIT uses CRISPR to sterilize male mosquitoes and render female mosquitoes, which spread disease, as flightless.
Why is this significant?
pgSIT eggs can be shipped to a location threatened by mosquito-borne disease or developed at an on-site facility that could produce the eggs for nearby deployment. Once the pgSIT eggs are released in the wild, sterile pgSIT males will emerge and eventually mate with females, driving down the wild population as needed.

What is CRISPR?
CRISPR technology is basically a gene-editing technology that can be used for the purpose of altering genetic expression or changing the genome of an organism. The technology can be used for targeting specific stretches of an entire genetic code or editing the DNA at particular locations.

Significance:
CRISPR technology is a simple yet powerful tool for editing genomes. It allows researchers to easily alter DNA sequences and modify gene function. Its many potential applications include correcting genetic defects, treating and preventing the spread of diseases and improving crops. However, its promise also raises ethical concerns.

How it works?
- The technology behaves like a cut-and-paste mechanism on DNA strands that contain genetic information.
- The specific location of the genetic codes that need to be changed, or “edited”, is identified on the DNA strand, and then, using the Cas9 protein, which acts like a pair of scissors, that location is cut off from the strand. A DNA strand, when broken, has a natural tendency to repair itself.
- Scientists intervene during this auto-repair process, supplying the desired sequence of genetic codes that binds itself with the broken DNA strand.

Concerns and issues involved:
1. It becomes contentious when used in humans. Leading scientists in the field have for long been calling for a “global pause” on clinical applications of the technology in human beings, until internationally accepted protocols are developed.
2. Studies highlighted that CRISPR-Cas9-edited cells might trigger cancer.
3. It may increase the risk of mutations elsewhere in the genome in those cells.
4. Many things are not clear like how we should determine which disease or traits are appropriate for gene editing.
5. Ethical concerns: In addition, there are concerns with manipulating human embryos for own interest.

InstaLinks:

Prelims Link:
1. What are genes?
2. How are genes edited?
3. What is Crispr technology?

Mains Link: Discuss the concerns associated with CRISPR technology.

5. Edible plants into vaccines:
Context:
Scientists attempt to turn edible plants like lettuce into mRNA vaccine factories under the edible vaccine project.

The edible vaccine project:
The project, backed by a US $500,000 grant from the US National Science Foundation, has three goals:
Showing that DNA containing the mRNA vaccines can be successfully delivered into the part of plant cells where it will replicate.

- Demonstrating the plants can produce enough mRNA to rival a traditional shot.
- Determining the right dosage.

If this new project is successful, plant-based mRNA vaccines which can be eaten could overcome this challenge with the ability to be stored at room temperature.

**What makes it possible in plants?**

- Key to making this work is chloroplasts, small organs in plant cells that convert sunlight into energy the plant can use.
- They’re tiny, solar-powered factories that produce sugar and other molecules which allow the plant to grow.
- They’re also an untapped source for making desirable molecules.

**What is this technology all about?**

Messenger RNA or mRNA technology works by teaching our cells to recognize and protect us against infectious diseases. One of the challenges with this new technology is that it must be kept cold to maintain stability during transport and storage.

**What are mRNA vaccines?**

mRNA vaccines trick the body into producing some of the viral proteins itself.

- They work by using mRNA, or messenger RNA, which is the molecule that essentially puts DNA instructions into action.
- Inside a cell, mRNA is used as a template to build a protein.

**How it works?**

1. To produce an mRNA vaccine, scientists produce a synthetic version of the mRNA that a virus uses to build its infectious proteins.
2. This mRNA is delivered into the human body, whose cells read it as instructions to build that viral protein, and therefore create some of the virus’s molecules themselves.
3. These proteins are solitary, so they do not assemble to form a virus.
4. The immune system then detects these viral proteins and starts to produce a defensive response to them.

**Significance of mRNA vaccines:**

There are two parts to our immune system: innate (the defences we’re born with) and acquired (which we develop as we come into contact with pathogens).

- Classical vaccine molecules usually only work with the acquired immune system and the innate immune system is activated by another ingredient, called an adjuvant.
- Interestingly, mRNA in vaccines could also trigger the innate immune system, providing an extra layer of defence without the need to add adjuvants.

**InstaLinks:**

**Prelims Link:**

1. What is a vaccine?
2. How do vaccines work?
3. Working of the immune system.

**Mains Link:** Discuss the benefits of mRNA vaccines.

**6. 5G technology:**

**Context:**

Vodafone Idea (Vi) claimed to have achieved a peak 5G data speed of 3.7Gbps on the mmWave spectrum band in a recent test conducted in Pune, Maharashtra. Peak download speeds of up to 1.5Gbps in the 3.5Ghz band 5G trial network in Gandhinagar and Pune.

**What is 5G?**

[www.insightsonindia.com](http://www.insightsonindia.com)
5G is the next generation of mobile broadband that will eventually replace, or at least augment 4G LTE connection.

Features and benefits of the 5G technology:
1. Operate in the millimeter wave spectrum (30-300 GHz) which have the advantage of sending large amounts of data at very high speeds.
2. Operate in 3 bands, namely low, mid and high frequency spectrum.
3. Reduced latency will support new applications that leverage the power of 5G, the Internet of Things (IoT), and artificial intelligence.
4. Increased capacity on 5G networks can minimize the impact of load spikes, like those that take place during sporting events and news events.

Significance of the technology:
India’s National Digital Communications Policy 2018 highlights the importance of 5G when it states that the convergence of a cluster of revolutionary technologies including 5G, the cloud, Internet of Things (IoT) and data analytics, along with a growing start-up community, promise to accelerate and deepen its digital engagement, opening up a new horizon of opportunities.

What are the potential health risks from 5G?
To date, and after much research performed, no adverse health effect has been causally linked with exposure to wireless technologies.

- **Tissue heating** is the main mechanism of interaction between radiofrequency fields and the human body. Radiofrequency exposure levels from current technologies result in negligible temperature rise in the human body.
- **As the frequency increases, there is less penetration into the body tissues** and absorption of the energy becomes more confined to the surface of the body (skin and eye).

Provided that the overall exposure remains below international guidelines, no consequences for public health are anticipated.

What are the international exposure guidelines?
Two international bodies produce exposure guidelines on electromagnetic fields. Many countries currently adhere to the guidelines recommended by:
1. The International Commission on Non-Ionizing Radiation Protection.
2. The Institute of Electrical and Electronics Engineers, through the International Committee on Electromagnetic Safety.

These guidelines are not technology-specific. They cover radiofrequencies up to 300 GHz, including the frequencies under discussion for 5G.

International efforts - International Electromagnetic Fields (EMF) Project:
WHO established the International Electromagnetic Fields (EMF) Project in 1996. The project investigates the health impact of exposure to electric and magnetic fields in the frequency range 0-300 GHz and advises national authorities on EMF radiation protection.

Insta Curious: Do you know what Orthogonal frequency-division multiplexing is? [Read Briefly Here].

InstaLinks:

Prelims Link:
1. What is 5G?
2. Differences between 3G, 4G and 5G.
3. Applications.

Mains Link:
Discuss the significance of 5G technology.
7. Central bank digital currency (CBDC):

Context:
The Reserve Bank of India has been working on a phased implementation strategy for a CBDC and the pilot may be launched by the end of this year.

The financial advisory services firm has listed four major use cases of CBDC in the Indian context. This includes:

1. ‘Fit-for-purpose’ money used for social benefits and other targeted payments in a country. For such cases, the central bank can pay intended beneficiaries pre-programmed CBDC, which could be accepted only for a specific purpose.
2. CBDCs could be used for faster cross-border remittance payments. International collaboration among the major economies of the world, including India, could help create the necessary infrastructure and arrangements for CBDC transfer and conversion.
3. Payment instruments could be made available for payment transactions to be made via CBDC. Furthermore, universal access attributes of a CBDC could also include an offline payment functionality.
4. Instant lending to micro, small, and medium enterprises (MSMEs) in India can be possible with the help of CBDC.

Need for CBDC:
1. An official digital currency would reduce the cost of currency management while enabling real-time payments without any inter-bank settlement.
2. India’s fairly high currency-to-GDP ratio holds out another benefit of CBDC — to the extent large cash usage can be replaced by CBDC, the cost of printing, transporting and storing paper currency can be substantially reduced.
3. The need for inter-bank settlement would disappear as it would be a central bank liability handed over from one person to another.

What is the CBDC or National Digital currency?
A Central Bank Digital Currency (CBDC), or national digital currency, is simply the digital form of a country’s fiat currency. Instead of printing paper currency or minting coins, the central bank issues electronic tokens. This token value is backed by the full faith and credit of the government.

SC Garg Committee recommendations (2019):
1. Ban anybody who mines, hold, transact or deal with cryptocurrencies in any form.
2. It recommends a jail term of one to 10 years for exchange or trading in digital currency.
3. It proposed a monetary penalty of up to three times the loss caused to the exchequer or gains made by the cryptocurrency user whichever is higher.
4. However, the panel said that the government should keep an open mind on the potential issuance of cryptocurrencies by the Reserve Bank of India.

Challenges in rolling out National Digital Currency:
1. Potential cybersecurity threat.
2. Lack of digital literacy of the population.
3. Introduction of digital currency also creates various associated challenges in regulation, tracking investment and purchase, taxing individuals, etc.
4. Threat to Privacy: The digital currency must collect certain basic information of an individual so that the person can prove that he’s the holder of that digital currency.

Insta Curious: Do you know what the IOTA Tangle is? Read Here

InstaLinks:
Prelims Link:
1. What is a blockchain?
2. What are Cryptocurrencies?
3. Which countries have issued Cryptocurrencies?
4. What is a Bitcoin?

Mains Link:
Discuss the pros and cons of CBDC.

8. Antimalarial drug resistance:

Context:
In recent years there is increasing evidence for the failure of *artemisinin-based combination therapy* for falciparum malaria either alone or with partner drugs.

- A recent study has described the presence of two mutations responsible for artemisinin resistance in Northern Uganda.
- The current report of artemisinin resistance in East Africa is a matter of great concern as this is the only drug that has saved several lives across the globe.

Why is there an increase in Antimalarial drug resistance?
In most malaria-endemic countries including India, Artemisinin-based antimalarial drugs are the first-line choice for malaria treatment especially against Plasmodium falciparum parasite which is responsible for almost all malaria-related deaths in the world. Overuse has led to mutations in P. falciparum cases treated with artemisinin.

What needs to be done?
The time has come to carry out *Molecular Malaria Surveillance* to find out the drug-resistant variants so that corrective measures can be undertaken in time to avert any consequences. Some experts even advocate using *triple artemisinin-based combination therapies* where the partner drug is less effective.

InstaLinks:

Prelims Link:
1. What is Antibiotic resistance?
2. What are antibodies?
3. Milk production and consumption in India.
4. What are critically important antibiotics (CIAs)?

Mains link:
Antibiotic resistance is one of the biggest health challenges of 21st century. Examine why.


**Topics: Conservation related issues, environmental pollution and degradation, environmental impact assessment.**

1. Sand and dust storms

Context: Sand and dust storms impact over 500 million in India, according to *Asian and Pacific Centre for the Development of Disaster Information Management (APDIM)* report *Sand and Dust Storms Risk Assessment* in Asia and the Pacific.

APDIM is a regional institution of the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP).

Key Findings:
- More than 500 million people in India and more than 80 per cent of the populations of Turkmenistan, Pakistan, Uzbekistan, Tajikistan and Iran are exposed to medium and high levels of poor air quality due to sand and dust storms.
- *Sand and dust storms contribute significantly to poor air quality* in Karachi, Lahore and Delhi in ‘southwest Asia’. Nearly 60 million people in these places experienced more than 170 dusty days a year in 2019.
- The risk of impacts from sand and dust storms is projected to increase in the 2030s due to more extreme drought conditions in parts of Western Australia, south-eastern Turkey, Iran and Afghanistan.
What are Sand and dust storms?

- Sand and dust storms are common meteorological hazards in arid and semi-arid regions. They are usually caused by thunderstorms – or strong pressure gradients associated with cyclones – which increase wind speed over a wide area.
- These strong winds lift large amounts of sand and dust from bare, dry soils into the atmosphere, transporting them hundreds to thousands of kilometres away.
- Some 40% of aerosols in the troposphere (the lowest layer of Earth’s atmosphere) are dust particles from wind erosion. The main sources of these mineral dusts are the arid regions of Northern Africa, the Arabian Peninsula, Central Asia and China.
- Once released from the surface, dust particles are raised to higher levels of the troposphere by turbulent mixing and convective updrafts. They can then be transported by winds for lengths of time, before being pulled back down to the surface again.

Environmental Impact:

- Sand and dust storms are a transboundary meteorological hazard. They affect agriculture, energy, environment, aviation, human health.
- In some places, much of this dust is characterised by high salt content, making it toxic for plants.
- Very high dust deposition also occurs in the Himalaya-Hindu Kush mountain range and the Tibetan Plateau, that are the sources for fresh water for more than 1.3 billion people in Asia.
- The deposition of dust on glaciers induces a warming effect, increasing the melting of ice, with direct and indirect impacts on society through numerous issues, including food security, energy production, agriculture, water stress and flood regimes.

Sand and dust storms directly affect 11 of the 17 United Nations-mandated sustainable development goals (SDG):

- Ending poverty in all forms
- Ending hunger
- Good health and well-being
- Safe water and sanitation
- Affordable and clean energy
- Decent work and economic growth
- Industry innovation and infrastructure
- Sustainable cities and communities
- Climate action
- Life below water
- Life on land

The impacts of dust storms are not all negative. They can increase the nutrient content in the areas of deposition and benefit vegetation. Dust particles that carry iron can enrich parts of oceans, improving the phytoplankton balance and impacting marine food webs.

Way Forward:

- Deeper understanding of the socio-economic impact of sand and dust storms.
- Establish a coordinated monitoring and early warning system.
- Coordinate actions in most at-risk and exposed geographical areas to mitigate the risks.
- Managing the risks associated with sand and dust storms would also become necessary in places not previously recognised as source areas for such phenomena.

Mains Link: Discuss how dust storms are formed? Examine the impact of climate change in formation of dust storms?

Source: Down to Earth
2. Assam wetland at risk till dumping stops: activists

**Context:** Degradation of Assam’s Deepor Beel due to anthropogenic forces

**More on this:**
- Human activities which have caused this destruction- dumping of garbage, construction of roads and railways, construction of warehouses, tourism activities
- This degradation has caused death of elephants in railway accidents, fewer elephants visiting the wetland due to deteriorating quality of water due garbage dumping, reduction in the number of fishes available for fishermen etc

**About Deepor Beel:**
1. Deepor Beel is a Ramsar site and a part of it is also wildlife sanctuary (Rani Reserve forest) in Guwahati, Assam.
2. Deepor Beel is a permanent freshwater lake, in an earlier channel of the Brahmaputra River, to the south of the main river.
3. The site is an important destination for many migratory species of birds

**What is Ramsar convention?** It is an international treaty for the conservation and wise use of wetlands, named after the Iranian city of Ramsar, on the Caspian Sea, where the treaty was signed on 2 February 1971.

**Insta-curious:** Know about all the wetland sites in India: [Click here](http://www.insightsonindia.com)

**InstaLinks:**

**Prelims link**
1. What is a wetland?
2. Ramsar sites in India
3. Sites in India which is included in Montreux record
4. About Deepor Beel
5. Brahmaputra river
6. Wetlands related rules and institutions in the country

**Mains link:** Explain the reasons behind the degradation of wetlands and measures required to overcome these challenges

**Source:** [The Hindu](http://www.insightsonindia.com)

3. Irrawaddy Dolphin

**Context:** Irrawaddy dolphin found dead in Chilika Lake. This is the 8th dolphin death in Odisha in 8 months.

**About Irrawaddy Dolphins**
- Found in coastal areas in South and Southeast Asia, and in three rivers: the Irrawaddy (Myanmar), the Mahakam (Indonesian Borneo) and the Mekong (China).
- The concentrated lagoon populations are found in Chilika Lake in Odisha, and Songkhla Lake in southern Thailand.

[www.insightsonindia.com](http://www.insightsonindia.com)
About Chilika Lake:
- Chilika is Asia's largest and world's second largest lagoon.
- It is the largestwintering ground for migratory birds on the Indian sub-continent and is home to a number of threatened species of plants and animals.
- In 1981, Chilika Lake was designated the first Indian wetland of international importance under the Ramsar Convention.
- Major attraction at Chilika is Irrawaddy dolphins which are often spotted off Satpada Island.
- The large Nalabana Island (Forest of Reeds) covering about 16 sq km in the lagoon area was declared a bird sanctuary in 1987.
- Kalijai Temple – Located on an island in the Chilika Lake.

InstaLinks:
Prelims Link:
1. About the habitats and IUCN status of Irrawaddy dolphins.
2. Their global distribution.
3. About Chilika lake.

4. Raptor Species

Context: 160 species of birds of prey endangered worldwide
- Around 30 per cent of the 557 raptor species around the world are threatened by extinction to some degree, according to a new study.
- The Philippine eagle, the hooded vulture and the Annobonscops-owl were among the 166 species facing some degree of threat, the study found.
- The new analysis by International Union for the Conservation of Nature (IUCN) and BirdLife International, a global initiative to protect birds and wildlife by non-profits, was published in the journal Proceedings of the National Academy of Sciences.

Threats to the Birds of Prey
- The threats to the birds of prey are a result of habitat loss, pollution, toxic substances, human–wildlife conflicts, collisions with aerial structures and electrocution by power lines and climate change.
- Migratory birds of prey are at risk to these threats due to long annual journeys from their breeding grounds to wintering areas and back.
- The population of Philippine eagles, the largest variety of eagles in the world, decreased rapidly in the last decades due to extensive deforestation.
- Some vulture populations have declined by over 95 per cent in Asian countries such as India because of the widespread use of diclofenac, an anti-inflammatory drug.

Raptors MOU
- The CMS Memorandum of Understanding on the Conservation of Migratory Birds of Prey in Africa and Eurasia (Raptors MOU) aims to promote internationally coordinated actions to achieve the favourable conservation status of migratory birds of prey throughout their range in the African-Eurasian region, and to reverse their decline when and where appropriate.
- The Raptors MOU is one of several instruments operating under the Convention on the Conservation of Migratory Species of Wild Animals (CMS).
- The MoU seeks willingness of the signatory range states for working for conservation of the raptor species and their habitats.
- India signed Raptor MOU in 2016.
- Raptor MoU is also in conformity with the provisions of the existing Wild Life (Protection) Act, 1972

Insta Links:
Prelims and Mains Link:
1. About Raptor Species
2. Threats to Raptor Species
3. International efforts for the conservation of Raptor Species
4. About Raptor MOU

Source: Down to Earth
5. Winged visitors arrive in Pulicat

Context: Increase in numbers of migratory birds visiting the Pulicat Lake in India

More on this news:
- This positive development is largely due to increase in the storage levels in the reservoir in adjoining areas.
- Pulicat lake is the second largest brackish water lake in the country; next only to Chilika lake.
- Greater flamingos and pelicans are some of the famous migratory birds that visit this place.
- The region in which Pulicat lake is situated receives rainfall from both South-West as well as North-East monsoon winds.
- Nelapattu Bird Sanctuary is a famous bird sanctuary located near this lake.
- The lake is also home for black-headed ibis, Asian openbill, black-crowned night heron, and little cormorant. Other migratory birds that visit the sanctuary include northern pintail, common teal, little grebe, northern shoveler, Eurasian coot, Indian spot-billed duck, grey heron, Oriental darter, black-winged stilt, garganey and gadwall.
- The presence of Barringtonia and Acacia nilotica species near the Pulicat lake region provides an ideal breeding site for spot-billed pelicans.

About Pulicat Lake and Nelapattu bird sanctuary
- Nelapattu bird sanctuary is considered one of the biggest habitats for some hundreds of pelicans and other birds. Located about 20 km north of the Pulicat Lake on the Andhra Pradesh-Tamil Nadu border, the sanctuary is spread in about 459 hectares.
- Pulicat Lake is the second largest brackish water lake or lagoon in India, after Chilika Lake. It straddles the border of Andhra Pradesh and Tamil Nadu states with over 96% of it in Andhra Pradesh. The lake encompasses the Pulicat Lake Bird Sanctuary. The barrier island of Sriharikota separates the lake from the Bay of Bengal and is home to the Satish Dhawan Space Centre. Two rivers which feed the lagoon are the Arani River at the southern tip and the Kalangi River from the northwest, in addition to some smaller streams. The Buckingham Canal, a navigation channel, is part of the lagoon on its western side.
- Flamingo Festival is held every year to promote tourism in Pulicat and Nelapattu.

Insta curious: How do migratory birds find their way? Click here

InstaLinks:
- Prelims link
  1. About Pulicat lake
  2. Famous migratory birds that visit the region
  3. Any steps or measures taken to conserve this lake

Source: The Hindu

6. IUCN Red List of Threatened Species:

Context:
The International Union for Conservation of Nature (IUCN) has released its latest Red List of Threatened Species.

Key facts:
1. Some 902 species are officially extinct.
2. 30 per cent of the species (38,543) that it assessed (138,374) face the threat of extinction.
3. Some 80 species are extinct in the wild, 8,404 are critically endangered, 14,647 are endangered, 15,492 are vulnerable and 8,127 are near threatened.
4. Some 71,148 species are of least concern, while 19,404 are data deficient.

Important Species mentioned in the report:
1. The Atlantic bluefin tuna (Thunnus thynnus) moved from endangered to least concern while the Southern bluefin tuna (Thunnus maccopyi) moved from critically endangered to endangered.

2. The world’s largest living lizard, the Komodo dragon (Varanus komodoensis), has been moved from vulnerable to endangered. The species is endemic to Indonesia and occurs only in the World Heritage-listed Komodo National Park and neighbouring Flores.

What is IUCN red list of threatened species?
It is the world’s most comprehensive inventory of the global conservation status of plant and animal species.

How are species categorised?
It uses a set of quantitative criteria to evaluate the extinction risk of thousands of species.

The IUCN Red List Categories:
- The IUCN Red List Categories define the extinction risk of species assessed. Nine categories extend from NE (Not Evaluated) to EX (Extinct).
- Critically Endangered (CR), Endangered (EN) and Vulnerable (VU) species are considered to be threatened with extinction.

<table>
<thead>
<tr>
<th>CRITERIA ⇒</th>
<th>A Population trend % decline</th>
<th>B Geographic distribution Area in km²</th>
<th>C &amp; D Population size Number of mature individuals</th>
<th>E Extinction % probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXTINCT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EX: Extinct</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EW: Extinct in the Wild</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>THREATENED</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CR: Critically Endangered</td>
<td>≥80% to ≥90% to ≥100%</td>
<td>&lt;10⁶ to &lt;10⁷</td>
<td>&lt;50,000 to &lt;250,000</td>
<td>≥50 in 10 yr or 5 generations</td>
</tr>
<tr>
<td>EN: Endangered</td>
<td>≥80% to ≥90% to ≥100%</td>
<td>&lt;10⁶ to &lt;10⁷</td>
<td>&lt;50,000 to &lt;250,000</td>
<td>≥250 in 20 yr or 5 generations</td>
</tr>
<tr>
<td>VU: Vulnerable</td>
<td>≥30% to ≥69% to ≥70%</td>
<td>&lt;2,000,000 to &lt;20,000,000</td>
<td>&lt;1,000,000 to &lt;10,000,000</td>
<td>≥10 in 100 yr</td>
</tr>
<tr>
<td>NOT THREATENED</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NT: Near Threatened</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LC: Least Concern</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UNKNOWN STATUS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DD: Data Deficient</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NE: Not Evaluated</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>REGIONAL (in addition to global categories)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RE: Regionally Extinct</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NA: Not Applicable</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Superindices indicate codes for criteria A to D and sub-criteria 1 to 4 — yr = years, ge = generations.

Utility of the red list:
- It brings into focus the ongoing decline of Earth’s biodiversity and the influence humans have on life on the planet. It provides a globally accepted standard with which to measure the conservation status of species over time.
- Scientists can analyze the percentage of species in a given category and how these percentages change over time; they can also analyze the threats and conservation measures that underpin the observed trends.


7. Impact of fossil fuel extraction on global warming:
Context: [www.insightsonindia.com](http://www.insightsonindia.com)
According to a new study (published in the journal Nature), global fossil fuel extraction needs to go down to keep global warming to below 1.5 degrees Celsius, which is the target set by the 2015 Paris Climate Agreement.

Key findings:
1. The global oil and gas production should decline by three per cent per year until 2050 to reach the target set by the 2015 Paris Climate Agreement.
2. As of now, both planned and operational fossil fuel extraction projects are not conducive to meeting the targets set.
3. A substantial number of regions in the world have already reached their peak fossil fuel production and that any increase in fossil fuel production will have to be offset by a decline elsewhere, if the goal wants to be achieved.
4. The required unextracted reserves need to be 58 percent for oil, 59 percent for fossil methane gas and 89 percent for coal by 2050. Which is to say that these percentages of fossil fuels need to remain unextractable if global warming targets are kept in mind.

Why is there a need to limit the use of fossil fuels?
Global cost of air pollution from fossil fuels is high:
It was around $2.9 trillion per year, or $8 billion per day, which was 3.3 per cent of the world’s GDP at the time.

- India is estimated to bear a cost of $150 billion from air pollution caused by fossil fuels.

Challenges ahead:
1. As of now, human activities have already caused global temperatures to rise by about 1 degree Celsius above pre-industrial levels (1950-1900).
2. Currently, countries’ emissions targets are not in line with limiting global warming to under 1.5 degrees.

What is the goal set out by the Paris Climate Agreement?
The Paris Climate Agreement that was signed by 195 countries in 2015 has set out a goal to limit climate change in the coming decades.

- The agreement aims to slow the process of global warming by making efforts to “hold the increase in the global average temperature to well below 2 degrees above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5 degrees above pre-industrial levels”.

Need of the hour for India:
1. Reduce emphasis on domestic exploration.
2. Increase productivity of producing fields.
3. Increase strategic reserves.
4. Restructure and reorganize public sector petroleum companies.
5. Avoid siloed thinking.

InstaLinks:
Prelims Link:
1. What is Paris Agreement?
2. Which countries have not signed?
3. Targets.
4. Funding mechanism announced under the Paris Agreement.
5. What are NDCs?

Mains Link: Discuss the significance of the Paris Climate deal.


8. **Groundswell report on climate change:**

**Context:**
The Report was recently released by the World Bank. It examined how the impacts of slow-onset climate change, such as water scarcity, decreasing crop productivity and rising sea levels, could lead to millions of what it describes as “climate migrants” by 2050.

**Highlights and key findings of the report:**
The report considers three different scenarios with varying degrees of climate action and development. These include:

1. **Most pessimistic scenario with a high level of emissions and unequal development:** The report forecasts up to 216 million people moving within their own countries across the six regions analysed. Those regions are Latin America; North Africa; Sub-Saharan Africa; Eastern Europe and Central Asia; South Asia; and East Asia and the Pacific.

2. **In the most climate-friendly scenario,** with a low level of emissions and inclusive, sustainable development, the world could still see 44 million people being forced to leave their homes.

3. **In the worst-case scenario,** Sub-Saharan Africa — the most vulnerable region due to desertification, fragile coastlines and the population’s dependence on agriculture — would see the most migrants, with up to 86 million people moving within national borders.

**Other impacts:**
- Hotspots of internal climate migration could emerge as early as 2030 and continue to spread and intensify by 2050.

The report provides a series of policy recommendations that can help slow the factors driving climate migration and prepare for expected migration flows, including:

1. Reducing global emissions and making every effort to meet the temperature goals of the Paris Agreement.
2. Embedding internal climate migration in far-sighted green, resilient, and inclusive development planning.
3. Preparing for each phase of migration, so that internal climate migration as an adaptation strategy can result in positive development outcomes.
4. Investing in better understanding of the drivers of internal climate migration to inform well-targeted policies.

**Insta Curious:** For nearly three decades the UN has been bringing together almost every country on earth for global climate summits – called COPs – which stands for ‘Conference of the Parties’. Where will COP26 be held? What is the agenda? Reference: read this.

Link: https://epaper.thehindu.com/Home/MShareArticle?OrgId=GJN8VO8F9.1&imageview=0, www.insightsonindia.com
9. What is Hydrogen Fuel?

Context:
Ministry of Railways has decided to close down the Indian Railways Organization for Alternate Fuels' with effect from September 7, 2021. The closure comes nearly a month after the IROAF had floated a tender for "hydrogen fuel cell-based technology" for retrofitting the existing Diesel Electric Multiple Unit (DEMU).

- All work-related to hydrogen fuel cells, including their tenders, will now be transferred to the Northern Railways.

Background:
Indian Railways are set to run trains on hydrogen fuel based technology under ‘Mission Net Zero Carbon Emission Railway’ by 2030.

What is Hydrogen fuel?
- Hydrogen is the lightest and first element on the periodic table. Since the weight of hydrogen is less than air, it rises in the atmosphere and is therefore rarely found in its pure form, H2.
- At standard temperature and pressure, hydrogen is a nontoxic, nonmetallic, odorless, tasteless, colorless, and highly combustible diatomic gas.

Occurrence of Hydrogen:
- Molecular hydrogen is not available on Earth in convenient natural reservoirs.
- Most hydrogen on Earth is bonded to oxygen in water and to carbon in live or dead and/or fossilized biomass. It can be created by splitting water into hydrogen and oxygen.

Significance of Hydrogen Based economy:
- Due to its ability to power fuel cells in zero-emission electric vehicles, its potential for domestic production, and the fuel cell’s potential for high efficiency hydrogen is considered an alternative.
- Water is the only by-product that results from the usage of hydrogen fuel that makes the fuel 100 per cent clean.
- Hydrogen can also serve as fuel for internal combustion engines.
- The energy in 2.2 pounds (1 kilogram) of hydrogen gas contains about the same as the energy in 1 gallon (6.2 pounds, 2.8 kilograms) of gasoline.

Government Missions towards hydrogen fuel:
- The Finance Minister in the Union budget for 2020-21 formally announced the National Hydrogen Mission which aims for generation of hydrogen from green power resources.
- The Ministry of New and Renewable Energy (MNRE) has also disclosed that the draft regulations for NHM will be finalised by the end of this month and will thereafter proceed for approval of the Union Cabinet.

Challenges for India:
- Economic sustainability of extracting green or blue hydrogen.
- The technology used in production and use of hydrogen like carbon capture and storage (CCS) and hydrogen fuel cell technology are at nascent stage and are expensive which in turn increases the cost of production of hydrogen.
- The maintenance costs for fuel cells post-completion of a plant can be costly, like in South Korea.
- The commercial usage of hydrogen as a fuel and in industries requires mammoth investment in R&D of such technology and infrastructure for production, storage, transportation and demand creation for hydrogen.

Insta Curious: Hydrogen has been stored as compressed gas or cryogenic liquid, and transported as such in cylinders, tubes, and cryogenic tanks for use in industry or as propellant in space programs. Read more about this [here](www.insightsonindia.com).
10. What is Green Hydrogen?

Context:
Power and New and Renewable Energy Minister RK Singh has urged US companies to participate in the bids for green hydrogen and electrolysers in the upcoming months.

Challenges:
The path for green hydrogen in the country is not clear and at the moment, production of green hydrogen is slightly more expensive than grey hydrogen.

What is green hydrogen?
Hydrogen when produced by electrolysis using renewable energy is known as Green Hydrogen which has no carbon footprint.

Significance of Green Hydrogen:
- Green hydrogen energy is vital for India to meet its Nationally Determined Contribution (INDC) Targets and ensure regional and national energy security, access and availability.
- Green Hydrogen can act as an energy storage option, which would be essential to meet intermittencies (of renewable energy) in the future.
- In terms of mobility, for long distance mobilisations for either urban freight movement within cities and states or for passengers, Green Hydrogen can be used in railways, large ships, buses or trucks, etc.

Applications of green hydrogen:
- Green Chemicals like ammonia and methanol can directly be utilized in existing applications like fertilizers, mobility, power, chemicals, shipping etc.
- Green Hydrogen blending up to 10% may be adopted in CGD networks to gain widespread acceptance.

Benefits:
- It is a clean-burning molecule, which can decarbonize a range of sectors including iron and steel, chemicals, and transportation.
- Renewable energy that cannot be stored or used by the grid can be channelled to produce hydrogen.

Insta Curious: Hydrogen is an invisible gas. But, then how are they named green, pink and so on? Read the

1. About Green Hydrogen.
2. How is it produced?
3. Applications.

11. The ‘Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Rights Act)’:

Context:
Individual and community right certificates were recently handed over to the beneficiaries of Gujjar-Bakerwal and Gaddi-Sippi communities in Jammu and Kashmir under the Forest Rights Act.
- The Act is being implemented from December 1, 2020. Before 2019, many Central laws were not implemented in Srinagar.
About the Forest Rights Act:
The Act passed in 2006 grants legal recognition to the rights of traditional forest dwelling communities.

Rights under the Act:
**Title rights** - i.e. ownership - to land that is being farmed by tribals or forest dwellers as on 13 December 2005, subject to a maximum of 4 hectares; ownership is only for land that is actually being cultivated by the concerned family as on that date, meaning that no new lands are granted.

**Use rights** - to minor forest produce (also including ownership), to grazing areas, to pastoralist routes, etc.

**Relief and development rights** - to rehabilitation in case of illegal eviction or forced displacement; and to basic amenities, subject to restrictions for forest protection.

**Forest management rights** - to protect forests and wildlife.

Eligibility criteria:
According to Section 2(c) of Forest Rights Act (FRA), to qualify as Forest Dwelling Scheduled Tribe (FDST) and be eligible for recognition of rights under FRA, three conditions must be satisfied by the applicant/s, who could be “members or community”:
1. Must be a Scheduled Tribe in the area where the right is claimed; and
2. Primarily resided in forest or forests land prior to 13-12-2005; and
3. Depend on the forest or forests land for bonafide livelihood needs.

And to qualify as Other Traditional Forest Dweller (OTFD) and be eligible for recognition of rights under FRA, two conditions need to be fulfilled:
1. Primarily resided in forest or forests land for three generations (75 years) prior to 13-12-2005.
2. Depend on the forest or forests land for bonafide livelihood needs.

Process of recognition of rights:
1. The gram sabha, or village assembly, will initially pass a resolution recommending whose rights to which resources should be recognised.
2. This resolution is then screened and approved at the level of the sub-division (or taluka) and subsequently at the district level.

The screening committees consist of three government officials (Forest, Revenue and Tribal Welfare departments) and three elected members of the local body at that level. These committees also hear appeals.

Insta Curious: Do you know about Critical Wildlife Habitats which are defined under the Forest Rights Act, 2006? Read this.

InstaLinks:
**Prelims Link:**
1. Who can include or exclude areas under 5th
2. What are scheduled areas?
3. Forest Rights Act- key provisions.
4. Rights under this Act.
5. Eligibility Criteria.
6. Role of Gram Sabha in recognizing these rights
7. What are Critical Wildlife Habitats?

12. **Green Bonds:**

Context:
*Power Finance Corporation Ltd (PFC)*, the leading NBFC in power sector, has successfully issued its first ever Euro Green Bonds.

- It is the first ever Euro denominated Green bond issuance from India.
- Moreover, it is the first ever Euro issuance by an Indian NBFC and the first Euro bond issuance from India since 2017.

**What Is a Green Bond?**

A green bond is a type of fixed-income instrument that is specifically earmarked to raise money for climate and environmental projects.

These bonds are typically asset-linked and backed by the issuing entity’s balance sheet, so they usually carry the same credit rating as their issuers’ other debt obligations.

- Green bonds may come with tax incentives to enhance their attractiveness to investors.
- The World Bank is a major issuer of green bonds. It has issued 164 such bonds since 2008, worth a combined $14.4 billion. In 2020, the total issuance of green bonds was worth almost $270 billion, according to the Climate Bond Initiative.

**How Does a Green Bond Work?**

Green bonds work just like any other corporate or government bond.

- Borrowers issue these securities in order to secure financing for projects that will have a positive environmental impact, such as ecosystem restoration or reducing pollution.
- Investors who purchase these bonds can expect to make as the bond matures.
- In addition, there are often tax benefits for investing in green bonds.

**Green Bonds Vs Blue Bonds:**

Blue bonds are sustainability bonds to finance projects that protect the ocean and related ecosystems.

- This can include projects to support sustainable fisheries, protection of coral reefs and other fragile ecosystems, or reducing pollution and acidification.
- All blue bonds are green bonds, but not all green bonds are blue bonds.

**Green Bonds Vs Climate Bonds:**

“Green bonds” and “climate bonds” are sometimes used interchangeably, but some authorities use the latter term specifically for projects focusing on reducing carbon emissions or alleviating the effects of climate change.

**InstaLinks:**

Prelims Link:
1. About Green Bonds.
2. How do they operate?
3. Features.

Mains Link: Discuss the significance of Green Bonds.

13. **27th Global Ozone Day:**

Context:
World Ozone Day is celebrated on 16th September each year to commemorate the signing of the Montreal Protocol.

- This international environmental treaty for phasing out of production and consumption of Ozone Depleting Substances came into force on this day in 1987.
- The Day is celebrated every year to spread awareness among people about the depletion of Ozone Layer and the measures taken/ to be taken to preserve it.

The theme World Ozone Day 2021: “Montreal Protocol - Keeping us, our food and vaccines cool”.

Montreal Protocol:
The Montreal Protocol on Substances that Deplete the Ozone Layer (the Montreal Protocol) is an international agreement made in 1987.

- It was designed to stop the production and import of ozone depleting substances and reduce their concentration in the atmosphere to help protect the earth's ozone layer.

What is the ‘Kigali Amendment’?
Kigali Amendment was adopted by the Parties to the Montreal Protocol on October, 2016 at 28th Meeting of the Parties to the Montreal Protocol held at Kigali, Rwanda.

- **Under the Kigali Amendment:** Parties to the Montreal Protocol will phase down production and consumption of Hydrofluorocarbons, commonly known as HFCs.
- All amendments and adjustments of the Montreal Protocol, prior to the Kigali Amendment have Universal support.

India’s achievements in implementation of Montreal Protocol:
- India, as Party to the Montreal Protocol since June 1992, has been successfully implementing the Montreal Protocol.
- **India has phased out** Chlorofluorocarbons, Carbon tetrachloride, Halons, Methyl Bromide and Methyl Chloroform for controlled uses in line with the Montreal Protocol.
- **Currently Hydrochlorofluorocarbons are being phased out** as per the accelerated schedule of the Montreal Protocol.
- **Hydrochlorofluorocarbons Phase out Management Plan (HPMP) Stage-I** has been successfully implemented from 2012 to 2016 and HPMP Stage-II is currently under implementation from 2017 and will be completed by 2023.
- **Government of India has recently decided to Ratify the Kigali Amendment to the Montreal Protocol.**

Benefits of ratification of the Kigali Amendment:
- HFC phasedown is expected to prevent the greenhouse gas emissions, helping prevent climate change and would benefit the people.
- The industry producing and consuming Hydrofluorocarbons will be phasing out Hydrofluorocarbons as per the agreed schedule under and transition to non-HFC and low global warming potential technologies.

**Insta Curious:** Did you know that the 20-year ‘India Cooling Action Plan’, or ICAP, released in 2019, describes cooling as a “developmental need”? Know more about ICAP [here](#).

**InstaLinks:**
- Targets.
- HFCs vs HCFCs.

**Prelims Link:**
1. About the Kigali Amendment.
Mains Link:
Discuss the significance of Kigali Amendment to Montreal Protocol.

14. ‘Sea snot’ outbreak in Turkey:

Context:
The sea snot that dominated the landlocked Marmara Sea earlier this year is nowhere to be seen on the surface nowadays, but its fallout appears to be bigger than experts initially hoped.

Impact of sea snot:
1. Overall, 60% of species have already disappeared.
2. The layers have sunk and are beginning to decompose.
3. The decomposition consumes oxygen in the water, which in turn promotes the formation of new marine mucilage.
4. In October, the conditions will be particularly favorable for a new spread. Therefore, the sludge may be visible on the surface again in November.
5. The slime could also spread to the Black Sea and the Aegean and may cause a regional ecological crisis.

Background:
Turkey’s Sea of Marmara, that connects the Black Sea to the Aegean Sea, has witnessed the largest outbreak of ‘sea snot’. The sludge has also been spotted in the adjoining Black and Aegean seas.

What is sea snot?
- It is a slimy layer of grey or green sludge, which can cause considerable damage to the marine ecosystem.
- It is formed when algae are overloaded with nutrients.
- A ‘sea snot’ outbreak was first recorded in the country in 2007. Back then, it was also spotted in the Aegean Sea near Greece.

Overloading of nutrients happens because of warm weather caused by global warming, water pollution, uncontrolled dumping of household and industrial waste into the seas etc.

What are the impacts? Concerns?
1. It has spread through the sea south of Istanbul and also blanketed harbours and shorelines.
2. It is posing a severe threat to the marine ecosystem of the country- it has caused mass deaths among the fish population, and also killed other aquatic organisms such as corals and sponges.
3. If unchecked, this can collapse to the bottom and cover the sea floor, causing major damage to the marine ecosystem.
4. Over a period of time, it could end up poisoning all aquatic life, including fishes, crabs, oysters, mussels and sea stars.
5. Besides aquatic life, the ‘sea snot’ outbreak has also affected the livelihoods of fishermen.
6. It can also cause an outbreak of water-borne diseases such as cholera in cities like Istanbul.

Steps taken by Turkey to contain its spread:
1. Turkey has decided to declare the entire Sea of Marmara as a protected area.
2. Steps are being taken to reduce pollution and improve treatment of waste water from coastal cities and ships.
3. A disaster management plan is being prepared.

Insta Curious: Did you know that Not all algal blooms are harmful, some can actually be beneficial. Read here,
5. Where is sea of Marmara?

Mains Link: Discuss the issues associated with the formation of sea snots.

15. International Blue Flag Certification:

Context:
Two more Indian Beaches (Kovalam in Tamil Nadu and Eden in Puducherry) get coveted International Blue Flag Certification. India now has 10 Blue Flag beaches.
- This is another recognition of India’s commitment to protect and conserve the pristine coastal and marine ecosystems through holistic management of the resources.

8 nominated beaches in India were awarded the Blue Flag certificate last year. These are:
1. Shivrajpur-Gujarat.
2. Ghogha-Diu.
8. Radhanagar- Andaman and Nicobar.

What is the Blue flag certification?
- Blue Flag certification is a globally recognised eco-label accorded by "Foundation for Environment Education in Denmark" based on 33 stringent criteria.
- The Blue Flag Programme for beaches and marinas is run by the international, non-governmental, non-profit organisation the 'Foundation for Environmental Education (FEE).
- It was started in France in 1985 and has been implemented in Europe since 1987, and in areas outside Europe since 2001, when South Africa joined.
- Neat and clean beaches are an indicator that the coastal environment is in good health and the Blue Flag certification is a global recognition of India's conservation and sustainable development efforts.
- A waving “Blue Flag” is an indication of 100% compliance to these 33 stringent criteria and sound health of the beach.

What is the ‘Blue Flag Beach’?
- The ‘Blue Flag’ beach is an ‘eco-tourism model’.
- It marks out beaches as providing tourists and beachgoers clean and hygienic bathing water, facilities/amenities, a safe and healthy environment, and sustainable development of the area.

Insta Curious: Sustainable Development Goals talk about Conserve and sustainably use the oceans, seas and marine resources. Which goal specifically talks about this? Reference: read this.

InstaLinks:
Prelims Link:
1. About Blue Flag certification.
2. Programme implemented by?
3. Announced by?
4. India’s and Asia’s first beach to get this certificate.

Mains Link: Write a note on the Blue flag programme.

16. Beach Environment & Aesthetics Management Services (BEAMS):

Context:
The Ministry of Environment, Forest and Climate Change in its pursuit of “Sustainable Development” of the coastal regions of India embarked upon a highly acclaimed & flagship program Beach Environment & Aesthetics Management Services (BEAMS).
What is it?
- BEAMS is one of the initiatives under ‘Integrated coastal zone management’ (ICZM) approach that the MoEF&CC has undertaken for the sustainable development of coastal regions of India.
- The prime objective of ICZM approach is to protect and conserve the pristine coastal and marine ecosystems through holistic management of the resources.

The objective of BEAMS program is:
1. To abate pollution in coastal waters,
2. Promote sustainable development of beach facilities,
3. Protect & conserve coastal ecosystems & natural resources, and
4. Seriously challenge local authorities & stakeholders to strive and maintain high standards of cleanliness,
5. Hygiene & safety for beachgoers in accordance with coastal environment & regulations.

What is ICZM Project?
Integrated coastal zone management (ICZM) aims to improve livelihood of coastal communities and conserve the coastal ecosystem.
- It is a World Bank assisted project.
- The National Centre for Sustainable Coastal Management (NCSCM), Chennai, will provide scientific and technical inputs.
- The concept of ICZM was born in 1992 during the Earth Summit of Rio de Janeiro.

17. Substitute for single-use plastics:

Context:
IISc researchers find a way to substitute for single-use plastics.
- By combining non-edible oils and cellulose extracted from agricultural stubble, the researchers made biodegradable, multi-use polymer sheets.

Significance:
This can make a substitute for single-use plastic that can, in principle, help mitigate the problem of accumulating plastic waste in the environment.

Background:
In 2019, the Union government in a bid to free India of single-use plastics by 2022, had laid out a multi-ministerial plan to discourage the use of single-use plastics across the country.

The strategy:
A government committee has identified the single use plastic (SUP) items to be banned based on an index of their utility and environmental impact. It has proposed a three-stage ban:
1. The first category of SUP items proposed to be phased out are plastic sticks used in balloons, flags, candy, ice-cream and ear buds, and thermocol that is used in decorations.
2. The second category, proposed to be banned from July 1, 2022, includes items such as plates, cups, glasses and cutlery such as forks, spoons, knives, straws, trays; wrapping and packing films used in sweet boxes; invitation cards; cigarette packets; stirrers and plastic banners that are less than 100 microns in thickness.
3. A third category of prohibition is for non-woven bags below 240 microns in thickness. This is proposed to start from September next year.

Challenges ahead:
1. It is not going to be an easy task given that close to 26,000 tons of plastic waste is generated across India every day, of which more than 10,000 tons stays uncollected.
2. A significant amount of plastic ends up in rivers, oceans and landfills.

What needs to be done?
www.insightsonindia.com
1. The government has to do a thorough economic and environmental cost-benefit analysis.
2. The plan has to take into account social and economic impacts for the ban to be successful.
3. We need better recycling policies because resources are poor and there needs to be a much broader strategy.

Insta Curious: Do you know about Plastic eating Bacteria? Can it solve the rising problem of Plastic pollution?
Read Here:

InstaLinks:
Prelims Link:
1. What are single use plastics?
2. Uses.
3. India's targets.
4. Other countries which are planning to phase out the use of single use plastics.

18. World Rhino Day — September 22:

Context:
Assam marked World Rhino Day — September 22 — with a special ceremony by burning a stockpile of nearly 2,500 horns of the one-horned rhinoceros.
- It has been publicised as a milestone towards rhino conservation and is aimed at busting myths about rhino horns.
- It’s a loud and clear message to the poachers and smugglers that such items have no value.

Is the government allowed to do so?
India is a signatory to CITES (Convention on International Trade in Endangered Species of Wild Flora and Fauna). Thus, it is illegal to sell the horns in the country anyway.
- Also, the case for the destruction of horns is a process that is in compliance with Section 39(3)(c) of the Wildlife (Protection) Act of 1972.

About One-horned rhinos:
- Only the Great One-Horned Rhino is found in India.
- Also known as Indian rhino, it is the largest of the rhino species.
- It is identified by a single black horn and a grey-brown hide with skin folds.
- They primarily graze, with a diet consisting almost entirely of grasses as well as leaves, branches of shrubs and trees, fruit, and aquatic plants.

Protection Status:
1. IUCN Red List: Vulnerable.
2. Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES): Appendix I (Threatened with extinction and CITES prohibits international trade in specimens of these species except when the purpose of the import is not commercial, for instance for scientific research).

Other Conservation Efforts by India:
- The five rhino range nations (India, Bhutan, Nepal, Indonesia and Malaysia) have signed a declaration ‘The New Delhi Declaration on Asian Rhinos 2019’ for the conservation and protection of the species.
- The Ministry of Environment Forest and Climate Change (MoEFCC) has begun a project to create DNA profiles of all rhinos in the country.
- National Rhino Conservation Strategy: It was launched in 2019 to conserve the greater one-horned rhinoceros.
About the Indian Rhino Vision 2020 (IRV 2020):
Launched in 2005.
- IRV 2020 is an initiative led by the Forest Department, Government of Assam, in partnership with WWF India, International Rhino Foundation, and several other organizations.
- The goal of IRV2020 was to increase the rhino population in Assam to 3,000 by establishing populations in new areas.
- Rhinos are now found in four Protected Areas in Assam: Pobitora Wildlife Reserve, Rajiv Gandhi Orang National Park, Kaziranga National Park, and Manas National Park.

Insta Curious:
Two adult one-horned rhinos were recently translocated from Pobitora Wildlife Sanctuary to Manas National Park, under the aegis of the Indian Rhino Vision 2020 (IRV 2020).

InstaLinks:
Prelims Link:
1. Different Rhino species.
2. One horned Rhino in India.
3. Habitats.
5. Conservation efforts.

Mains Link: Write a note on IRV 2020.

19. IMO urged to act on Black Carbon emissions:

Context:
With Arctic summer ice reaching its 12th lowest ever extent, the Clean Arctic Alliance has called for urgent cuts to black carbon emissions from shipping, ahead of the 77th Marine Environment Protection Committee (MEPC) meeting (MEPC 77) at the International Maritime Organization (IMO) in November.

About the Marine Environment Protection Committee (MEPC):
In order to ensure that a proactive stance is taken by in order to protect and safeguard the interests of the marine environment and ecosystem, the IMO has established the Marine Environment Protection Committee (MEPC).
- The committee seeks to provide a solution for the problem of air pollution caused by the constant and heavy traffic of ships in the oceanic areas.
- The committee in its sessions also seeks to provide required revisions to the existing MARPOL stipulations and guidelines.
- The creation and enforcement of PSSAs (Particularly Sensitive Sea Areas) and other special oceanic zones is also an area that is looked into by the environment protection organisation.

What is black Carbon? What are the concerns?
Black carbon results from the incomplete combustion of fossil fuels and biomass. BC is produced both naturally and by human activities as a result of the incomplete combustion of fossil fuels, biofuels, and biomass.
- Primary sources include emissions from diesel engines, cook stoves, wood burning and forest fires.
- It is a short-lived pollutant that is the second-largest contributor to warming the planet behind carbon dioxide (CO2).

Insta Curious: Despite similar names, carbon black should not be confused with black carbon. What is Carbon Black? [Read very briefly from an exam point of view. Preferably the time to save time]

InstaLinks:
Prelims Link:
1. Black Carbon.
2. Sources.
3. Effects.
4. What is brown carbon?

Mains Link: Discuss the issues associated with the deposition of black carbon on snow.
20. Sundarbans threatened by human activities:

Context:
As per the latest findings, continuous loss of biodiversity is observed across the shorelines of settlement zones in Indian Sundarbans.

Issues and challenges:
1. Small patches of mangroves are being lost gradually and quietly due to their indiscriminate destruction for either coastal development or short-term gains.
2. These patches are observed to be enriched habitats of several rare and threatened flora and fauna.
3. The continued loss of shoreline mangrove ecosystems has created fragmented and fragile mangrove habitats for rare taxa and framed barriers to their movement and dispersal.
4. This irreversible loss of biodiversity is often neglected, which could never be compensated with any ‘cut the established and plant the new’ theory.

What can be done?
The Sunderbans are affected due to the polluted discharges from shrimp ponds. So, instead of popularising shrimp farming, if more indigenous fishing activities were encouraged, coastal threatened biodiversity could be protected and at the same time livelihood options may be provided to the coastal dwellers.

About Indian Sundarbans:
- Covers 4,200 sq. km and includes the Sunderban Tiger Reserve of 2,585 sq. km — home to about 96 royal Bengal tigers (as per the last census in 2020).
- It is a world heritage site and a Ramsar site (a wetland site designated to be of international importance).
- It is also home to a large number of “rare and globally threatened species, such as the critically endangered northern river terrapin (Batagur baska), the endangered Irrawaddy dolphin (Orcaella brevirostris), and the vulnerable fishing cat (Prionailurus viverrinus).”
- Two of the world’s four horseshoe crab species, and eight of India’s 12 species of kingfisher are also found here. Recent studies claim that the Indian Sundarban is home to 2,626 faunal species and 90% of the country’s mangrove varieties.

InstaLinks:

Prelims Link:
1. Where are Sundarbans?
2. What are mangroves?
3. Flora and fauna in the regions.

Mains Link:
4. Recent cyclones in BoB region.

21. The burden of climate change on children born today:

Context:
A study was recently published by Researchers on the impact of climate change on children born today.
- The study is based on data from the Inter-sectoral Impact Model Intercomparison Project (ISIMIP).

How was the study carried out?
The ISIMIP data were used alongside country-scale, life-expectancy data, population data and temperature trajectories from the Intergovernmental Panel on Climate Change (IPCC).

Key findings:
- Children born today will be hit much harder by extreme climate events than today’s adults.
- During his or her lifetime, a child born in 2021 is likely to experience on average twice as many wildfires, two to three times more droughts, almost three times more river floods and crop failures and about seven times more heat waves compared to a person who is, say, 60 years old today.

What needs to be done?
Under a scenario of current “insufficient” climate policies, dangerous extreme heatwave events, which affect about 15% of the global land area today, could treble to 46% by the end of this century.

However, if:

- Countries are able to follow through with their climate policies as decided under the Paris Climate Agreement, this effect could be limited to 22%, which is just seven percentage points more than the global land area that is affected today.
- We increase climate protection from current emission reduction pledges and get in line with a 1.5-degree target, we will reduce young people’s potential exposure to extreme events on average by 24% globally.

What is the Inter-sectoral Impact Model Intercomparison Project (ISIMIP)?

This is a community-driven climate-impacts modelling initiative that assesses the differential impacts of climate change.

- Initiated by the Potsdam Institute for Climate Impact Research (PIK) and the International Institute for Applied Systems Analysis (IIASA) and has since grown to involve over 100 modelling groups from around the world.

Who is involved?

NGO’s, Private sector, Policy-makers.

How is it carried out?

ISIMIP is organised into simulation rounds, which are guided by a focus topic. For each round, a simulation protocol defines a set of common simulation scenarios based on the focus topic. Participating modelling groups are provided with a common set of climate input data, and other data (in some cases unique to one sector) necessary to ensure cross-sectorally consistent impacts simulations.

Insta Curious: Important Climate Summits:


Topics: Disaster and management.

1. State government report on Chennai’s flood:

Context:

www.insightsonindia.com
Tamil Nadu state government has released a report on the action taken by the government with regard to measures to prevent recurrence of flooding.

- The report was in response to the National Green Tribunal (NGT) registering a suo motu. The court had done so after newspapers widely reported areas in the city being flooded in addition to an overflow of sewage November 30, 2020.

What has the report said?

Causes for flooding:

1. Encroachments, faulty drainage systems and tampering of natural course of water had made the megapolis prone to flooding every year.
2. Rapid urbanisation of Greater Chennai and its peri-urban areas had led to massive changes in land use patterns, as residential areas had sprung up in farmlands.
3. The changes in land use patterns were done without making the required changes for a proper drainage system to manage the flow of surplus water from traditional tanks as well as flood waters from catchment areas.
4. Irrigation tanks were choked with waste, slush and debris, obstructing the flow of flood water. This also reduced the water-absorbing and groundwater recharging capacity of the marsh.

Measures suggested:

- Chennai needs an integrated flood management system with proper facilities to drain excess rainwater and desilt channels to prevent floods.
- The report recommended an integrated road and street side storm water drainage network, straight cut diversion channels, macro storm water drains, check dams, barrages and anicuts as part of such a system.

Urban floods in India- an overview:

Urban flooding is the inundation of land or property in a built environment, particularly in more densely populated areas, caused by rainfall overwhelming the capacity of drainage systems, such as storm sewers.

- In many Indian cities, urban floods have become a frequent phenomenon in recent years.

Unscientific urbanization leading to Urban floods:

Natural factors:

1. Increasing downpour.
2. Cyclonic storms and thunderstorms.
3. Occurrence of high tides impeding the drainage in coastal cities.

Anthropogenic factors:

1. Concretization.
2. Wiping out of the wetlands.
3. Poor Water and Sewerage Management.
4. Encroachment and Illegal constructions.
5. Deforestation.

Administrative factors:

1. Lack of flood control measures.
2. Multiple authorities in a city but owning responsibility by none.

Measures needed:

Structural Measures:

1. Conservation of wetlands in urban areas like lakes, ponds, streams.
2. Construction of differential slope along sidewalks, roads to drain excess water into reservoirs.
3. Strengthening of Storm water drainage system.
4. Pre-monsoon desilting of all major drains to be completed by March 31 each year.
5. Every building in an urban area must have rainwater harvesting as an integral component of the building utility.

www.insightsonindia.com
6. Concept of Rain Gardens to be incorporated in planning for public parks and on-site storm water management for larger colonies and sites those are to be developed.
7. Suitable interventions in the drainage system like traps, trash racks can be provided to reduce the amount of solid waste going into the storm sewers.

Non-structural Measures:
1. National Hydro-meteorological Network as per NDMA is needed for all urban cities in India.
2. Flood hazard assessments should be done on the basis of projected future scenarios of intensities and duration of rainfall and land use changes.
3. Better forecasting of rainfall events; timely dissemination of information to the mass- ‘Nowcasting’ alerts or real-time weather updates.
4. Restrict encroachments in natural drainage areas; clearance of river beds, proper implementation of Coastal Regulation Zone rules.
5. Provisions for flood-proofing of buildings
6. Storm water pollution control, i.e. source is controlled by imposing quality standards for wastewater and solid waste disposals in urban environments.


2. Punjab’s desertification in 25 years:

Context:
The Punjab Vidhan Sabha committee, constituted to study water table depletion, has recently said that the state will turn into a desert in the next 25 years if the present trend of drawing water from underground aquifers continues.

- This is a prediction that has been made before – over two decades ago, a study on water table depletion in Punjab (The State of the World Report, 1998) had projected almost the same time frame of 25 years, saying aquifers in Punjab could be depleted by 2025.

How alarming is the water situation in Punjab really?
1. Out of 138 blocks in Punjab, 109 have already gone into the ‘dark’ or over-exploited zone, which means groundwater extraction is more than 100 per cent here.
2. Two fall under the ‘dark/critical’ zone (groundwater extraction is 90 to 100 per cent), while five are under semi-critical (groundwater extraction 70 to 90 per cent) zone.
3. This means that around 80 per cent blocks of the state have already dried up and four per cent are on the verge of it.
4. Water availability at 3 to 10 meters, which needs a centrifugal pump to extract water, is the most desirable, but currently, water is available at 20 to 30 meters, or more than 30 meters down, in around 84 per cent of Punjab.

Reasons for this scarcity:
1. More water is being drawn than it is being replenished. The rate of water extraction in Punjab is 1.66 times against the rate of replenishment.
2. Because of the adoption of a faulty cropping pattern. Paddy crop hampers water recharging because of the puddling method used to prepare fields for transplanting.

What needs to be done?
Farmers must be incentivised to choose cropping patterns that require less water, and go for drip irrigation or other water management mechanisms to save our only available deeper aquifers.

Insta Curious: Desertification and Land Degradation Atlas of India was recently released by the Government of India. What does it contain? Have a brief overview of this here.

Link: https://indianexpress.com/article/explained/punjab-water-crisis-report-7540278/lite/
Topics: Role of external state and non-state actors in creating challenges to internal security.

1. Pakistan exploiting scope of uranium enrichment in Gilgit Baltistan:

Context:
In violation of international laws, Pakistan has been exploiting the scope of uranium enrichment in Pakistan-occupied Gilgit-Baltistan, confirmed locals and political activists from the occupied region.

India’s concerns:
Earlier, there were reports that Pakistan has given a free hand to Chinese mining companies to plunder natural resources in Gilgit Baltistan. There are reports that over 2,000 leases for mining of gold, uranium and molybdenum have been illegally awarded to Chinese firms by the Pakistan government in occupied Gilgit Baltistan and Khyber Pakhtunkhwa.

What exactly is uranium and what are its uses?

Occurrence: occurs naturally in low concentrations in soil, rock and water and is commercially extracted from uranium-bearing minerals.

Applications:
1. Uranium that has a silvery grey metallic appearance is mainly used in nuclear power plants due to its unique nuclear properties.
2. Depleted uranium is also used as a shield against radiation in medical processes using radiation therapy and also while transporting radioactive materials.
3. Though itself radioactive, uranium’s high density makes it effective in halting radiation.
4. Its high density also makes it useful as counterweights in aircraft and industrial machinery.

Uranium Mining In India:
- In India, Uranium deposits occur in the Dharwar rocks.
- It occurs along the Singbhum Copper belt (Jharkhand); Udaipur, Alwar and Junjhunun districts of Rajasthan, Durg district of Chhattisgarh, Bhandara district of Maharashtra and Kullu district of Himachal Pradesh.
- Significant quantities of reserves were recently discovered in parts of Andhra Pradesh and Telangana between Seshachalam forest and Sresailam (Southern edge of Andhra to Southern edge of Telangana).

What is the goal of uranium enrichment?
- Uranium contains a rare radioactive isotope, called U-235, that can be used to power nuclear reactors at low enrichment levels and to fuel nuclear bombs at much higher levels.
- The goal of uranium enrichment is to raise the percentage levels of U-235, which is often done through the use of centrifuges — machines that spin a form of unrefined uranium at high speeds.

Insta Curious: Recently, the Pakistan government declared Panj Tirath Hindu religious site as national heritage? Why is it significant? Reference: read this.

InstaLinks:
Prelims Link:
1. Radioactive vs non radioactive elements.
2. What is the half life of an element? How is it measured?
3. Abundance of various elements in earth’s crust.
4. How does uranium contaminate groundwater?
5. Uranium limits- BIS vs WHO.
Mains Link: A recent report has highlighted uranium contamination in India’s groundwater. Discuss the causes, its effects and ways to address the issue?

2. NCRB data on ‘Offences against State’:

Context:
As per the latest data released by NCRB:
1. Manipur, Assam and Uttar Pradesh recorded the highest number of cases under ‘Offences against State’ in 2020.
2. However, there was a decline in the overall number of cases registered — 5,613 cases (26.7 per cent) in 2020 as against 7,656 cases in 2019.
3. Of the 5,613 cases, 4,524 cases (80.6 per cent) were registered under the Prevention of Damage to Public Property Act, followed by 796 cases (14.2 per cent) under UAPA.
4. Meanwhile, Manipur, Assam, Karnataka and Uttar Pradesh recorded the highest number of sedition cases in 2020.
5. Among the Union Territories, Delhi recorded 5 sedition cases.

What are offences against the state?
‘Offences against State’ includes cases booked under sedition, Unlawful Activities Prevention Act (UAPA), Official Secrets Act, damage to public property, and imputation, assertions prejudicial to national integration.

Let’s learn more about sedition. What is sedition?
Section 124A of the IPC states, "Whoever, by words, either spoken or written, or by signs, or by visible representation, or otherwise, brings or attempts to bring into hatred or contempt, or excites or attempts to excite disaffection towards, the government established by law in shall be punished with imprisonment for life, to which fine may be added, or with imprisonment which may extend to three years, to which fine may be added, or with fine."

Need for a proper definition?
The sedition law has been in controversy for far too long. Often the governments are criticized for using the law — Section 124-A of the Indian Penal Code (IPC) — against vocal critics of their policies.
- Therefore, this Section is seen as a restriction of individuals’ freedom of expression and falls short of the provisions of reasonable restrictions on freedom of speech under Article 19 of the Constitution.

The law has been in debate ever since it was brought into force by the colonial British rulers in 1870s. Several top freedom movement leaders including Mahatma Gandhi and Jawaharlal Nehru were booked under the sedition law.
- Mahatma Gandhi described it as the “prince among the political sections of the Indian Penal Code designed to suppress the liberty of the citizen.”
- Nehru had described it as “highly objectionable and obnoxious” which “should have no place in any body of laws that we might pass”. Nehru said, “The sooner we get rid of it the better.”

Relevant Supreme Court judgements:
1. The Kedar Nath Singh vs State of Bihar case (1962):
While dealing with offences under Section 124A of the IPC, a five-judge Supreme Court constitutional bench had, in the Kedar Nath Singh vs State of Bihar case (1962), laid down some guiding principles.

- The court ruled that comments—however strongly worded—expressing disapprobation of the actions of the government without causing public disorder by acts of violence would not be penal.

In this case, the Supreme Court had clarified that merely shouting slogans, in this case Khalistan Zindabad, does not amount to sedition. Evidently, the sedition law is being both misunderstood and misused to muzzle dissent.

Observations made in 2020:
1. It is time we define the limits of sedition.
2. Provisions of 124A (sedition) and 153 (promoting enmity between classes) of the IPC require interpretation, particularly on the issue of the rights of press and free speech.

Insta Curious: Do you know how Mr. K.M. Mushshi’s Amendment had removed ‘Sedition’ from the Constitution And how a SC judgement brought back Sedition Law in India? Read Here.

InstaLinks:

Prelims Link:
1. Where is sedition defined?
2. Section 124A of the IPC is related to?
3. Section 153 of the IPC is related to?
4. Relevant Supreme Court judgments.
5. Article 19 of the Indian Constitution.

Mains Link: Discuss the issues associated with the imposition of Sedition law in India.


3. Assam, Mizoram border dispute:

Context:
The Chief Ministers of Assam and Mizoram have sought to ease tensions along the border.

Recent incidents/developments:
The police forces of both States exchanged fires on July 26. This left six Assam policemen and a civilian dead and 60 others injured.

- Assam claimed the firing was one-sided and unprovoked, while Mizoram said they retaliated to the aggression by the Assam police.

Origins of the dispute:
The two States share a 164.6-km volatile border and the conflict is decades-old.

At the center of the dispute are two notifications- 1875 and 1993:
- Mizoram claims that the land is theirs is based on an 1875 notification, which came from the Bengal Eastern Frontier Regulation Act of 1873.
- Assam claims that the land is theirs based on a 1933 notification that demarcated the Lushai Hills, which Mizoram was formerly known as, from the province of Manipur.

Impacts of such incidents:
After recent incidents, locals in Assam blocked the National Highway-306 besides uprooting a stretch of the lone railway track connecting Mizoram. Transportation of people and goods to and from Mizoram had thus been affected.
What needs to be done?
● The Supreme Court should be approached for an amicable solution.
● CRPF forces should patrol and monitor the region under the direct supervision of the Union government should be increased.
● Avoid posting sensitive messages and make judicious use of social media platform” to prevent any possible escalation of the situation.

Insta Curious: Did you know that besides Assam and Mizoram, there are seven such conflicts that the home ministry says are ongoing? Here is a brief overview.

InstaLinks:

Prelims Link:
1. Border between Assam and Mizoram.
2. Reasons for the Border dispute.
3. North East states that have international borders.
4. NH 306- location.
5. Overview of the Bengal Eastern Frontier Regulation Act of 1873.

Mains Link: Suggest measures to end the Assam-Mizoram border dispute.


Topics: Challenges to internal security through communication networks, role of media and social networking sites in internal security challenges, basics of cyber security; money-laundering and its prevention

1. National Intelligence Grid or NATGRID:

Context:
Prime Minister Narendra Modi is soon expected to launch the National Intelligence Grid or NATGRID that aims to provide a “cutting-edge technology to enhance India’s counter-terror capabilities”.

What is NATGRID?
● Envisaged as a robust mechanism to track suspects, the NATGRID can help in preventing terrorist attacks with real-time data and access to classified information like immigration, banking, individual taxpayers, air and train travels.
● In 2010, the Cabinet Committee on Security (CCS) had given approval to the Rs 3,400-crore NATGRID project.

Who can access the data?
It will be a medium for at least 10 Central agencies such as the Intelligence Bureau (IB) and the Research and Analysis Wing (R&AW) to access data on a secured platform. The data will be procured by NATGRID from 21 providing organisations such as the telecom, tax records, bank, immigration etc.

Criticisms:
1. NATGRID is facing opposition on charges of possible violations of privacy and leakage of confidential personal information.
2. Its efficacy in preventing terror has also been questioned given that no state agency or police force has access to its database thus reducing chances of immediate, effective action.
3. According to few experts, digital databases such as NATGRID can be misused. Over the last two decades, the very digital tools that terrorists use have also become great weapons to fight the ideologies of violence.
4. Intelligence agencies have also opposed amid fears that it would impinge on their territory and possibly result in leaks on the leads they were working on to other agencies.

But, Why do we need NATGRID?
1. The danger from not having a sophisticated tool like the NATGRID is that it forces the police to rely on harsh and coercive means to extract information in a crude and degrading fashion.
2. After every terrorist incident, it goes about rounding up suspects—many of who are innocent. If, instead, a pattern search and recognition system were in place, these violations of human rights would be much fewer.

3. Natgrid would also help the Intelligence Bureau keep a tab on persons with suspicious backgrounds.

4. The police would have access to all his data and any movement by this person would also be tracked with the help of this data base.

InstaLinks:

Prelims Link:
1. What is CCTNS?
2. NATGRID- aims and objectives.
3. What is NCRB?
4. Agencies covered under NATGRID.

Mains Link: Discuss the significance of NATGRID.

Link: https://epaper.thehindu.com/Home/MShareArticle?OrgId=GEH8VKVMK.1&imageview=0.

2. Naga peace process:

Context:
Tamil Nadu Governor R N Ravi has resigned as interlocutor for the Naga peace process to prevent it from derailing.

Background:
- Mr. Ravi is the Governor of Nagaland and has been crossing swords with the extremist Isak-Muivah faction of the National Socialist Council of Nagaland or the NSCN (I-M) for almost two years. The process has been ongoing since mid-1997 when the NSCN (I-M) declared a ceasefire with the armed forces. Other groups began opting for talks in 2001. However, it has been put in a cold storage” since the Framework Agreement was signed on August 3, 2015.

How old is the Naga political issue?

1. Pre- independence:
   - The British annexed Assam in 1826, and in 1881, the Naga Hills too became part of British India. The first sign of Naga resistance was seen in the formation of the Naga Club in 1918, which told the Simon Commission in 1929 “to leave us alone to determine for ourselves as in ancient times”.
   - In 1946 came the Naga National Council (NNC), which declared Nagaland an independent state on August 14, 1947.
   - The NNC resolved to establish a “sovereign Naga state” and conducted a “referendum” in 1951, in which “99 per cent” supported an “independent” Nagaland.

2. Post- independence:
On March 22, 1952, the Naga Federal Government (NFG) and the Naga Federal Army (NFA) were formed. The Government of India sent in the Army to crush the insurgency and, in 1958, enacted the Armed Forces (Special Powers) Act.

Agreement in this regard:
- The NSCN (IM) entered into a ceasefire agreement with the Centre in 1997 and the two have been holding talks since then, while a conglomerate of seven different Naga national political groups (NNPGs) also got into separate talks with the Centre since 2017.
- The Centre signed a “framework agreement” with NSCN (IM) in 2015, and an “agreed position” with the NNPGs in 2017.

www.insightsonindia.com
However, the NSCN (IM)’s demand for a separate Naga flag and constitution has been a delaying factor in signing a final deal on the protracted Naga political issue.

Insta Curious: The key demand of Naga groups has been a Greater Nagalim. What parts of the state are covered in it? Reference: read this.

InstaLinks:
Prelims Link:
1. Parts of States included under Greater Nagalim.
2. About Naga Club and NNC.
3. When was the Naga Referendum held?

Mains Link: Discuss the issues and challenges associated with the Naga Peace Accord.

3. Unlawful Activities (Prevention) Act:

Context:
The Office of High Commissioner of Human Rights, United Nations, has expressed its concerns over the ongoing use of the Unlawful Activities (Prevention) Act throughout India and has called the situation as `worrying.

What's the issue?
Referring to the state of Jammu & Kashmir, the United Nations High Commissioner for Human Rights has remarked that the state has the highest number of cases registered under Unlawful Activities (Prevention) Act [UAPA] across the Country.

- It also flagged concerns regarding the cases of Journalists who are under detention "for exercising their right to the freedom of expression". However, it does acknowledge the Government’s efforts to counter terrorism and promote development in the region (J&K), but also cautioned that such restrictive measures can result in human rights violations and foster further tensions and discontent.

About the Unlawful Activities (Prevention) Act:
Passed in 1967, the law aims at effective prevention of unlawful activities associations in India. The Act assigns absolute power to the central government, by way of which if the Centre deems an activity as unlawful then it may, by way of an Official Gazette, declare it so.

- It has death penalty and life imprisonment as highest punishments.

Key points:
Under UAPA, both Indian and foreign nationals can be charged.

- It will be applicable to the offenders in the same manner, even if crime is committed on a foreign land, outside India.

- Under the UAPA, the investigating agency can file a charge sheet in maximum 180 days after the arrests and the duration can be extended further after intimating the court.

As per amendments of 2019:
- The Act empowers the Director General of National Investigation Agency (NIA) to grant approval of seizure or attachment of property when the case is investigated by the said agency.
- The Act empowers the officers of the NIA, of the rank of Inspector or above, to investigate cases of terrorism in addition to those conducted by the DSP or ACP or above rank officer in the state.
- It also included the provision of designating an individual as a terrorist.

Delhi High Court defines the contours of UAPA:
In June 2021, delivering a judgment defining the contours of the otherwise "vague" Section 15 of the Unlawful Activities (Prevention) Act, 1967, (UAPA), the Delhi High Court laid down some important principles upon the imposition of Section 15, 17 & 18 of the Act.

Sections 15, 17 and 18 of UAPA:
1. S. 15 engrafts the offence of 'terrorist act'.

www.insightsonindia.com
2. S. 17 lays-down the punishment for raising funds for committing a terrorist act.
3. S. 18 engrafts the offence of ‘punishment for conspiracy etc. to commit a terrorist act or any act preparatory to commit a terrorist act’.

Key observations made by the court:
1. "Terrorist Act" Should not be used lightly so as to trivialise them.
2. Terrorist activity is that which travels beyond the capacity of law enforcement agencies to deal with under ordinary penal law (Supreme Court’s decision in the case of Hitendra Vishnu Thakur).

InstaLinks:
Prelims Link:
1. Definition of unlawful activity.
2. Powers of Centre under the act.
3. Is judicial review applicable in such cases?

Mains Link: Do you agree that the Unlawful Activities (Prevention) Amendment Act could prove catastrophic for fundamental rights? Is sacrificing liberty for national security justified? Discuss and provide for your opinion.

Topics: Security challenges and their management in border areas; linkages of organized crime with terrorism.

1. MLAs forum to check outmigration from Arunachal Pradesh:

Context:
The MLAs of Arunachal Pradesh representing constituencies bordering Tibetan China have formed a forum to prevent the outmigration of villagers and modify the Border Area Development Programme (BADP) to suit local needs.

Need for such a step:
People are migrating to urban areas within Arunachal Pradesh or beyond for livelihood. Many villages are almost abandoned today.
- Besides, a decades-old plan of the State government to prepare border area residents as a line of defence hasn't gone well.
- Also, BADP was improperly implemented because of unclear guidelines.

About the Border Area Development Programme (BADP):
- The BADP was initiated in the western region during the Seventh Five-Year Plan from 1985-1990 and extended to the other regions.
- The programme covers 456 blocks of 119 border districts in 16 States and two Union Territories abutting the international boundary.
- The BADP schemes include construction of primary health centres, schools, supply of drinking water, community centres, connectivity, drainage to enable sustainable living in border areas.

Objectives:
The main objective of the BADP is to meet the special developmental needs and wellbeing of the people living in remote and inaccessible areas situated near the international border and to saturate the border areas with the entire essential infrastructure through convergence of Central/ State/ BADP/ Local schemes and participatory approach.

Funding and schemes covered:
The funds under BADP are provided to the States as a 100% non-lapsable Special Central Assistance.

InstaLinks:
Prelims Link:
1. About BADP.
2. Objectives.

Mains Link: Discuss the significance of BADP.
2. **Karbi Agreement:**

**Context:**

A *tripartite agreement* among five insurgent groups of Assam, the Centre and the State government was recently signed to *end years of violence in the Karbi Anglong region.*

The insurgent groups which signed the peace accord include:

1. Karbi Longri NC Hills Liberation Front (KLNLF),
2. People’s Democratic Council of Karbi Longri (PDCK),
3. Kuki Liberation Front (KLF),
4. United People’s Liberation Army (UPLA) and
5. Karbi People’s Liberation Tiger (KPLT).

**Highlights of the Agreement:**

- Under the peace accord, *more than 1,000 armed cadres have abjured violence* and joined the mainstream.
- The agreement provides for their *rehabilitation*.
- The Centre will make available a *special development package of ₹1,000 crore over the next five years*, for the Assam government to undertake specific projects for the development of Karbi areas.
- The Assam government will *set up a Karbi Welfare Council* for focused development of Karbi people living outside the ‘Karbi Anglong Autonomous Council’ (KAAC) area.
- The consolidated fund of the State will be augmented to supplement the resources of KAAC.

Overall, the present settlement proposes to give more legislative, executive, administrative and financial powers to KAAC.

**The memorandum of settlement would ensure:**

- Greater devolution of autonomy to the Karbi Anglong Autonomous Council (KAAC).
- Protection of identity, language and culture of the Karbi people.
- Focused development of the Council area, without affecting the territorial and administrative integrity of Assam.

**Who are Karbis?**

- A *major ethnic community of Assam*—Karbis are dotted by many factions, and marked by ethnic violence, killings, abductions, taxation since the late 1980s.
- Originally, they are one of Northeast India’s tribal groups, *largely inhabiting the Karbi Anglong and Dima Hasao (formerly North Cachar) hills districts.*

**What did the Karbis demand?**

The core demand of the Karbi outfits was the *formation of a separate state.*

- In late 1990s, the Karbi National Volunteers (KNV) and Karbi People’s Force (KPF) had come together to form the United People’s Democratic Solidarity (UPDS).
In November 2011, the organisation decided to lay down its arms and sign a tripartite memorandum of settlement with the Centre and the Assam government, settling for enhanced autonomy and special packages for the Karbi Anglong Autonomous Council (KAAC).

The Karbi Anglong Autonomous Council (KAAC) is an autonomous district council, which is protected under the Sixth Schedule of the Indian Constitution.

Bodo peace accord:
The former militants belonging to five Karbi splinter groups laid down their arms a year after the Assam state government signed the historic Bodo peace accord, bringing an end to the long-run violence in Bodoland.

- The Bodoland region is also an autonomous territorial region that is administered by the elected body - Bodoland Territorial Council.
- The Accord was first signed in 2003 and then extended in 2020.

Significance of Karbi Anglong Agreement:
The Karbi Anglong Agreement is important as an insurgency by Karbi has had a long history in Assam, which has been marked by killings, ethnic violence, abductions and taxation since the late 1980s.

- The agreement hopes to bring an end to this violence and establish peace in the state.
- Around 1000 Karbi militants had surrendered before the Assam government in February 2021.
- Around 150 of those Karbi militants reached North Block where the Karbi Anglong Agreement was being signed and about 15 of them were present in the meeting.

InstaLinks:

Prelims Link:
1. Difference between 5th and 6th schedule of Indian Constitution.
2. Powers of governor under 5th.
3. Who can include or exclude areas under 5th?
4. What are scheduled areas?
5. Forest Rights Act- key provisions.
6. Tribal Advisory Councils- composition and functions.
7. About Karbi.
8. About Bodoland.

Mains Link: Differentiate between 5th and 6th schedules of the Indian constitution.

3. Arakan Rohingya Salvation Army (ARSA) and Rohingya Crisis:

Context:
Indian security agencies have reported that the Arakan Rohingya Salvation Army (ARSA) and its functionaries might have taken refuge in the country.

What is ARSA?
- ARSA, formerly known as Harakah al-Yakin, or ‘Faith Movement’, is currently active among the Rohingya residents in Myanmar and Bangladesh.
- It claims to be fighting for the rights of the Rohingya population in Myanmar, which were denied by the government.

What's the issue?
The United Nations has described Rohingya as “the most persecuted minority in the world” due to the systematic discrimination they face. A tide of displaced people are seeking refuge in neighbouring countries since 2017 as they fled Myanmar with horrifying claims of gang rape, torture and murder at the hands of Myanmar’s security forces.

Who are Rohingyas?
- They are an Ethnic group, mostly Muslims. They were not granted full citizenship by Myanmar.
- They are, basically, stateless, Indo-Aryan ethnic group who reside in Rakhine State, Myanmar.
- There were an estimated 1 million Rohingya living in Myanmar before the 2016–17 crisis. An estimated 625,000 refugees from Rakhine, Myanmar, had crossed the border into Bangladesh since August 2017.

Described by UN Secretary-General Antonio Guterres as “one of, if not the, most discriminated people in the world”.

www.insightsonindia.com

InsightsIAS
Protection available to Rohingyas under the International Conventions:

1. The 1951 Refugee Convention and its 1967 Protocol:
They define the term ‘refugee’ and outlines the rights of refugees, as well as the legal obligations of States to protect them.
- The core principle is non-refoulement, which asserts that a refugee should not be returned to a country where they face serious threats to their life or freedom.
- However, the concern now is that Bangladesh is not a signatory to this convention.

2. International Covenant on Civil and Political Rights (ICCPR):
Even though the refugees are foreigners in the country of asylum, by virtue of Article 2 of the ICCPR, 1966, they could enjoy the same fundamental rights and freedoms as nationals- the right to equality before the law, equal protection of the law and non-discrimination.

Insta Curious: Know about some of the important refugee crisis across the world. Read here.

InstaLinks:
Prelims Link:
1. Who are Rohingyas?
2. Location of Rakhine State.
3. ICJ vs International Criminal Court.
4. About the ICCPR.
5. About the 1951 Refugee Convention.

Mains Link:
Write a note on the Rohingya Crisis.
FACTS FOR PRELIMS

1. Triple delight for India at Tokyo Paralympics
   - Mariyappan Thangavelu clinched silver in the men’s high jump T63 final. In the same event, Sharad Kumar secured bronze.
   - Singhraj Adhana, won a bronze in the P1 men’s air pistol SH1 category. Singhraj finished with a score of 216.8, which proved adequate.
   - The cumulative effort of Mariyappan, Sharad and Singhraj boosted India’s overall medals tally to 10 inclusive of two golds, five silvers and three bronzes.
   Source:

2. Vaccine pioneer wins Ramon Magsaysay award
   - Bangladeshi vaccine scientist and a microfinance pioneer from Pakistan were among the five recipients of this year’s Ramon Magsaysay Award — regarded as the Asian version of the Nobel Prize
   - Apart from Dr. Firdausi Qadri from Bangladesh and Muhammad Amjad Saqib from Pakistan, the other winners are Filipino fisher and community environmentalist Roberto Balon, American Steven Muncy for humanitarian work and refugee assistance and Indonesian torch bearer for investigative journalism, Watchdoc.
   - The Ramon Magsaysay Award is an annual award established to perpetuate former Philippine President Ramon Magsaysay’s example of integrity in governance, courageous service to the people, and pragmatic idealism within a democratic society
   - Vinoba Bhave was the 1st Magsaysay Award winner when the award was instituted in 1958
   Source:

3. Resolution 2593 of the United Nations Security Council (UNSC)
   - The United Nations Security Council, under the current Presidency of India, on August 30, 2021, adopted a resolution on the situation in Afghanistan, demanding that the war-torn country not be used to threaten or attack any nation or shelter terrorists.
   - The resolution was put forward by the US, the UK, France. It was adopted after 13 Council members voted in favour, while permanent members Russia and China abstained from the voting.
   Source: The Hindu

4. Ladakh adopts State animal and bird
   - Ladakh adopted two endangered species, snow leopard and black-necked crane, as State animal and State bird
   - Black-necked cranes are only found in Ladakh’s Changthang region. The bird is classified as Near-Threatened, as per the IUCN classification; whereas Snow leopard has been classified as ‘vulnerable’
   - In India, Snow leopard’s geographical range encompasses a large part of the western Himalayas including the UT of Jammu and Kashmir, UT of Ladakh, Himachal Pradesh, Uttarakhand and Sikkim and Arunachal Pradesh in the eastern Himalayas.
   Source: The Hindu

5. 200 Army personnel for Zapad exercise
   - One of the contingents of the Indian armed forces is participating in Exercise Zapad
   - ZAPAD 2021 is one of the theatre level exercises of Russian armed forces and will focus primarily on operations against terrorists.
   - Multiple countries will be part of this exercise.
   - Pakistan and china are part of this exercise as observer states
   Source: The Hindu
6. High honor for Naval Aviation

- The President's Colours/Standard/Guidon is one of the greatest honors bestowed upon in recognition of exceptional service rendered by military unit to the nation, both during war and peace.
- Indian Navy was the first to be presented with the President's Colours on 27 May 1951.
- Naval aviation will now be provided with this award by President Ram Nath Kovind at a ceremonial parade to be held at INS Hansa, Goa.

Source: The Hindu

7. Indian biologist wins global award for turtle conservation

- Indian biologist Shailendra Singh has been awarded the Behler Turtle Conservation Award for bringing three critically endangered turtle conservation species back from the brink of extinction - Red-crowned Roofed Turtle (Batagur kachuga), Northern River Terrapin (Batagur baska), and Black Softshell Turtle (Nilssonia nigricans).
- This award is bestowed by several global bodies involved in turtle conservation such as Turtle Survival Alliance, IUCN/SSC Tortoise and Freshwater Turtle Specialist Group, Turtle Conservancy, and the Turtle Conservation Fund.
- There are 29 species of freshwater turtles and tortoises in the country.

Note: Difference between Tortoise and turtle: Tortoises have more rounded and domed shells where turtles have thinner, more water-dynamic shells. Tortoises spend most of their time on land and turtles are adapted for life spent in water.

8. About Turtle Survival Alliance (TSA)

The Turtle Survival Alliance (TSA) was formed in 2001 as an International Union for Conservation of Nature (IUCN) partnership for sustainable captive management of freshwater turtles and tortoises, and initially designated a Task Force of the IUCN Tortoise and Freshwater Turtle Specialist Group.

9. Durand Line

- Durand Line is the 2,670-kilometre long international land border between Afghanistan and Pakistan.
- The agreement demarcating the Durand Line was signed on November 12, 1893 between the British civil servant Sir Henry Mortimer Durand and Amir Abdur Rahman, then the Afghan ruler.
- The line cut through Pashtun tribal areas on both sides of the border.
- The line stretches from the Afghanistan’s border with China to Afghanistan’s border with Iran.
- With independence in 1947, Pakistan inherited the Durand Line.

Source: Indian Express

10. Who are Houthis?

Houthis are an armed rebel group belonging to the Zaidi Shia sect fighting against the government of Yemen. Traditionally, the Houthis have been concentrated in the northwestern Saada Province of Yemen.

11. Places in News - Guinea:

- Guinea is a country in West Africa, bordered on the west by the Atlantic Ocean.
- It’s known for the Mount Nimba Strict Nature Reserve, in the southeast.
- The sovereign state of Guinea is a republic with a president who is directly elected by the people.
- Guinea is a predominantly Islamic country, with Muslims representing 85 per cent of the population.

Why in the News?
Guinea has long been beset by political instability. Recent unrest started after the dismissal of a senior commander in the special forces — provoking some of its highly trained members to rebel and occupy the presidential palace.

12. **National Farmers’ Database:**
- The Centre has created a National Farmers’ Database with records of 5.5 crore farmers, which it hopes to increase to 8 crore farmers by December by linking it to State land record databases.
- The database has been created by taking data from existing national schemes such as PM-KISAN, soil health cards and the insurance scheme PM Fasal Bima Yojna.

13. **Manda buffalo:**
- The National Bureau of Animal Genetic Resources (NBAGR) has recognised the Manda buffalo as the 19th unique breed of buffaloes found in India.
- It is found in the Eastern Ghats and plateau of Koraput region of Odisha.
- The Manda are resistant to parasitic infections, less prone to diseases and can thrive on modest resources.

14. **Greece creates a Ministry to deal with climate crisis:**
- Greece government has created a new Ministry to address the impact of climate change.
- This is done in the wake of massive wildfires that burned more than 1,000 square kilometers (385 square miles) of forest on the island of Evia and in southern Greece.
- The Ministry will look into firefighting, disaster relief and policies to adapt to rising temperatures resulting from climate change.

15. **GST tribunal:**
The Supreme Court has warned that the government had no option but to constitute the Goods and Services Tax (GST) Appellate Tribunal.
**What is GST Appellate Tribunal?**
- The GST Appellate Tribunal (GSTAT) is the second appeal forum under GST for any dissatisfactory order passed by the First Appellate Authorities.
- The National Appellate Tribunal is also the first common forum to resolve disputes between the centre and the states.
- It holds the same powers as the court and is deemed Civil Court for trying a case.
- **Section 109 of the GST Act** mandates the constitution of the Tribunal.

The GSTAT has the following structure:
1. National Bench: The National Appellate Tribunal is situated in New Delhi, constitutes a National President (Head) along with 2 Technical Members (1 from Centre and State each).
2. Regional Benches: On the recommendations of the GST Council, the government can constitute (by notification) Regional Benches, as required. As of now, there are 3 Regional Benches (situated in Mumbai, Kolkata and Hyderabad) in India.
3. State Bench and Area Bench.
16. Chandigarh gets its first pollen calendar:

The city of Chandigarh now has its first pollen calendar.

- Pollen calendars are graphical representations of the time dynamics of airborne pollen taxa in a certain geographic area.
- They are location-specific, with concentrations strongly tied to the flora found in the area.
- They provide easy-to-understand visual information on diverse airborne pollen species that are present throughout the year, as well as their seasonality, in a single image.

Significance:

- Pollens are considered major outdoor airborne allergens responsible for allergic rhinitis, asthma, and atopic dermatitis in humans.
- These calendars can identify potential allergy triggers and provide a clear understanding for clinicians as well as allergy sufferers about their causes to help limit their exposure during high pollen loads.

17. Qeqertaq Avannarleq:

- It is a tiny, uninhabited and previously unknown island discovered recently off the coast of Greenland.
- Measuring 60×30 metres and with a peak of three metres above sea level, it has now become the new northernmost piece of land on Earth.
- Before this, Oodaaq was marked as the Earth’s northernmost terrain.

The discovery comes as a battle is looming among Arctic nations, the US, Russia, Canada, Denmark and Norway for the control of the North Pole and of the surrounding seabed, fishing rights and shipping routes exposed by melting ice due to climate change.

18. Pradhan Mantri Gramin Digital Saksharata Abhiyan (PMGDISHA):

- PMGDISHA campaign for 100 percent digital literacy in Digital Villages launched.
- Under the campaign, a three day certification drive for rural citizens, especially women and disadvantaged communities, will be conducted for a few days in September 2021.
- The drive has been launched under the PMGDISHA Scheme, the flagship digital literacy programme of GOI.

19. India’s first Dugong conservation reserve:

- India’s first Dugong conservation reserve will be built in Tamil Nadu.
- The reserve will spread over an area of 500 km in Palk Bay on the southeast coast of Tamil Nadu.
- Dugong is a marine animal that has been enlisted vulnerable to extinction on a global scale by the World Conservation Union (IUCN).
- It is the State animal of Andaman & Nicobar Islands. This endangered marine species survive on seagrass and other aquatic vegetation found in the area.
- It is the only herbivorous mammal that is strictly marine and is the only extant species in the family Dugongidae.

20. Thamirabarani civilization:

- Thamirabarani (Porunai) is a river that originates in the Western Ghats (from the Agastyarkoodam peak of Pothigai hills) in the State and empties into the sea at the Gulf of Mannar after passing through Tirunelveli and Thoothukudi districts.
- Rivers have a unique association with civilisations. Thamirabarani in the southern district of Tirunelveli is no exception.

Why in News?
A US-based lab has carbon-dated the remaining discovered from this ancient civilization in Tamil Nadu to at least 3,200 years.

- This is the oldest civilization perhaps, older than the Vaigai civilization which is believed to be 2,600 years old.

21. **LCA-Mk2:**

- Light Combat Aircraft-Tejas Mark 2, the second generation fighter prototypes are underway in association with the DRDO’s Aeronautical Development Agency (ADA).
- The first flight is expected to be ready by 2023.
- The Mk2 is 1,350 mm longer featuring canards and can carry a payload of 6,500 kg.

22. **Subansiri Hydroelectric Project (LSHP):**

- Subansiri Lower Hydroelectric Project (SLHEP), is an under-construction gravity dam on the Subansiri river along the border of Assam and Arunachal Pradesh.
- Subansiri River (gold river), originates in the Tibet Plateau and enters India through Miri hills in Arunachal Pradesh.
- It is the largest tributary of Brahmaputra River.
- The project is being developed by the state-run National Hydro Power Corporation (NHPC).
- It will be the single largest hydroelectric plant in India when completed. The project is expected to be completed in 2023.

**Controversy surrounding the project:**
Resistance to the ongoing hydroelectric project was shown in the form of a far-reaching anti-dam movement. It is alleged that the dam is located in a seismic zone and it is significantly under-designed to resist earthquakes. The fluctuation of water level in the river is also feared to affect the ecology in the lower Subansiri region in future.

23. **Saline Gargle RT-PCR technology:**

- It is simple, fast, cost-effective, patient-friendly and comfortable.
- It also provides instant test results and is well-suited for rural and tribal areas, given minimal infrastructure requirements.

**How it works?**

- Saline Gargle RT-PCR method uses a simple collection tube filled with saline solution. The patient has to gargle the solution and rinse it in the tube.
- The sample is taken to the laboratory where it is kept at room temperature for about 30 minutes in a special buffer solution prepared by NEERI.
- An RNA template is produced when this solution is heated and then processed for RT-PCR.

**Why in News?**

Nagpur-based National Environmental Engineering Research Institute (NEERI) has transferred the know-how of indigenously developed Saline Gargle RT-PCR technique to the Ministry of Micro, Small and Medium Enterprises (MSME) for commercialising it.

- NEERI is an institute under the Council for Scientific and Industrial Research (CSIR).
24. Samvatsari:
- It is a festival celebrated by the Jain community, especially the Shwetambara sect.
- It is the last day of an eight-day observance of prayers called Paryushana Parva or Paryushana.
- It falls on Shukla Panchami each year in the Jain calendar month of Bhadrapada (somewhere between the middle of August and September in the Gregorian calendar).
- Samvatsari is also known as the Day of Forgiveness.

25. 100% first dose vaccination in Goa:
- Goa has become the second state in India to complete 100% covid vaccination of the first dose for all its eligible residents.
- Himachal Pradesh was the first state to achieve this feat.

This was one of the main tracks of the U.S.-India Agenda 2030 Partnership that President Joe Biden and Prime Minister Narendra Modi announced at the Leaders Summit on Climate in April 2021.
- It was launched recently.
- It will provide both India and the United States an opportunity to renew the collaborations on climate change while also addressing the financial aspects.
- It will deliver climate finance primarily as grants and concessional finance, as envisaged under the Paris Agreement for strengthening the climate action.

27. T+1 settlement system:
Securities and Exchange Board of India (SEBI) has offered T+1 settlement system for stock Market exchanges. If the stock exchange agrees to the proposal, investors will get money for shares they sold or bought in their accounts faster, and in a safer and risk-free environment.

What Is T+1 (T+2, T+3) cycles?
T+1 (T+2, T+3) are abbreviations that refer to the settlement date of security transactions.
- The "T" stands for transaction date, which is the day the transaction takes place.
- The numbers 1, 2, or 3 denote how many days after the transaction date the settlement—or the transfer of money and security ownership—takes place.

Stocks and mutual funds are usually T+1 and bonds and money market funds vary among T+1, T+2, an

28. Hindi Diwas:
- Every year, 14th September is celebrated as Hindi Diwas in India.
- It aims to raise awareness about the language and also commemorate the event when it was adopted as one of the official languages of India.
- Hindi, written in the Devanagari script, was adopted as the official language of the Republic of India on 14th September, 1949.
- It is one of the 22 scheduled languages of the Republic of India.
- Besides Hindi, English is the other official language (Article 343 of the Constitution).
- Hindi is also an eighth schedule language.
- Article 351 pertains to ‘Directive for development of the Hindi language’.

www.insightsonindia.com 157 InsightsIAS
29. **Exercise PEACEFUL MISSION:**

Joint Counter Terrorism Exercise PEACEFUL MISSION is a Multilateral Exercise, which is conducted biennially as part of military diplomacy between Shanghai Cooperation Organisation (SCO) member states.

- The 6th edition of Exercise PEACEFUL MISSION is being hosted by Russia in the Orenburg Region of South West Russia from 13 to 25 September 2021.
- The aim of the exercise is to foster close relations between SCO member states and to enhance abilities of the military leaders to command multi-national military contingents.

30. **Char Dham:**

- Char Dham means Four Dhams i.e. Four religious places. Char Dham in Uttarakhand is a collective term used for religious circuit covering Holy hindu pilgrimage centres of Badarinath, Kedarnath, Gangotri and Yamunotri.
- All four temple shrines are located in Garhwal Himalayas range of Uttarakhand.
- This is considered as most sacred religious places to be visited by Hindus, to get rid of their sins and pave path to ultimate goal of human life - the Moksha.

31. **EXERCISE SURYA KIRAN:**


- This joint military training will go a long way in improving bilateral relations and also will be a major step towards further strengthening the traditional friendship between the two nations.
- **Last edition of Exercise Surya Kiran** was conducted in Nepal in 2019.

32. **World Patient Safety Day 2021:**

World Patient Safety Day is observed on **September 17** to create understanding globally about patient safety, increase public engagement in health care safety, etc.

- **The theme:** "Safe maternal and newborn care".
- **The slogan for the day** is "Act now for safe and respectful childbirth!"

History:
World Patient Safety Day was established by the World Health Assembly through resolution WHA72.6 on "Global action on patient safety" In 2019, and is observed on **September 17 annually**.

33. **Kushinagar Airport declared as Customs Notified Airport:**

- The Central Board of Indirect Taxes and Customs (CBIC) has declared Kushinagar Airport as a Customs notified airport.
- This would also facilitate international passenger movements including that of Buddhist pilgrims.

A customs airport is an airport notified by the appropriate customs authority of the country as an airport which shall be airports for the unloading of imported goods and the loading of export goods or any class of such goods.

**About Kushinagar:**

- It is an important Buddhist pilgrimage site, where Gautam Buddha attained Mahaparinirvan.
- Kushinagar is dotted with several other Buddhist sites in the nearby surroundings like Sravasti (238 km), Kapilvastu (190 km) and Lumbini (195 km).

34. **Strophodus jaisalmerensis:**

- Strophodus jaisalmerensis is the new species of *Hybodont Shark* (currently extinct) belonging to the Jurassic age.
The teeth of the new species was recently discovered by a team from the Geological Survey of India (GSI) in Jaisalmer, Rajasthan. The specimen is estimated to be 160-168 million years old.

With this discovery, the genus Strophodus is discovered for the first time in the Indian subcontinent.

It is only third such discovery from Asia after Japan and Thailand.

Hybodont Sharks dominated both marine and fluvial environments during the Triassic and early Jurassic times. They became extinct by the end of the Cretaceous period.

35. **Baijayant Panda Committee:**

It is a committee constituted by Ministry of Defence constituted a High Level Expert Committee for a comprehensive review of National Cadet Corps (NCC).

Objectives of the Committee:

- Committee is to suggest measures to empower NCC cadets to contribute more effectively towards nation building.
- To propose ways for gainful engagement of NCC Alumni for betterment of the organization.
- To recommend best practices of similar international youth organisations for inclusion in NCC curriculum.

36. **Prof. S.K. Joshi Laboratory Excellence Award:**

- It was launched recently by the Quality Council of India.
- This is country’s first-of-its-kind Laboratory Excellence Award.
- This award will be open to all currently operational Laboratories pertaining to Testing, Calibration & Medical including their Proficiency Testing Providers & Reference Material Producers located in India.
- Prof. S.K. Joshi was a luminary in the field of Science and Academica.

37. **G-33:**

- The G33 (or the Friends of Special Products in agriculture) is a coalition of developing countries, established prior to the 2003 Cancun ministerial conference, that have coordinated during the Doha Round of World Trade Organization negotiations, specifically in regard to agriculture.
- There are currently 47 members in the G33.
- The group has “defensive” concerns regarding agriculture in relation to WTO negotiations, and seeks to limit the degree of market opening required of developing countries.
- The group has advocated the creation of a “special products” exemption, which would allow developing countries to exempt certain products from tariff reductions, and also a “special safeguard mechanism” which would permit tariff increases in response to import surges.
- India is a member of this group.

38. **Humboldt penguins:**

Last week, Mumbai’s Byculla Zoo announced the addition of two new Humboldt penguin chicks this year. The two join seven adult Humboldt penguins at Byculla Zoo.

- Humboldt penguins are a medium-sized species among at least 17 species.
- Humboldt penguins have an average height of just over 2 ft (Among the Species, the Emperor penguin is the largest and stands at over 4 ft tall).
- The Humboldt penguin (Spheniscus humboldti) belongs to a genus that is commonly known as the ‘banded’ group (Penguins are divided into six genera).
- Humboldt penguins are endemic to the Pacific coasts of Chile and Peru.

www.insightsonindia.com
● They are so named because their habitat is located near the Humboldt Current, a large oceanic upwelling characterised by cold waters.
● They are classified as vulnerable by the IUCN Red List.

39. **What is a stablecoin?**

- A stablecoin is a type of cryptocurrency that is typically pegged to an existing government-backed currency.
- The majority of the dozens of stablecoins that currently exist use the dollar as their benchmark asset, but many are also pegged to other fiat currencies issued by governments like the euro and yen.
- As a result, the price of stablecoins fluctuates very little, unlike high-profile cryptocurrencies like bitcoin and etheruem that are prone to sudden ups and downs.
- Stablecoins are useful because they allow people to transact more seamlessly in cryptocurrencies that function as investments, such as Bitcoin. They form a bridge between old-world money and new-world crypto.
- The first stablecoin, created in 2014, was Tether, which many other stablecoins are modeled after.

40. **World’s longest expressway between Delhi and Mumbai:**

- The 1380-km eight-lane expressway — passing through Delhi, Haryana, Rajasthan, Madhya Pradesh and Gujarat — will reduce travel time between the cities to 12 hours.
- It will be open in 2023.
- The eight-lane access-controlled expressway can be expanded to a 12-lane expressway depending on the volume of traffic.
- Over two million trees and shrubs are planned to be planted along the highway.
- The expressway is the first in Asia and only the second in the world to feature animal overpasses to facilitate unrestricted movement of wildlife.

41. **General Sherman:**

- The General Sherman tree is the world’s largest in terms of volume and exists in the Giant Forest sequoia grove of the national park. As per recent estimates, General Sherman is about 2,200 years old.
- The tree stands at a height of 275 feet (taller than the leaning tower of Pisa) and has a diameter of 36 feet at the base.
- It is located in the U.S. state of California.

**Why in News?**
The tree is threatened by California wildfires.

42. **Sea cucumber:**

- Sea cucumber in India is treated as an endangered species listed under schedule I of Wildlife Protection Act of 1972.
- They are marine invertebrates that live on the seafloor found generally in tropical regions. They’re named for their unusual oblong shape that resembles a fat cucumber.
- They are an integral part of the coral ecosystem as one of the main by-products of the sea cucumbers digestion of sand is calcium carbonate and this is essential for the survival of the coral reefs.
- They act like garbage collectors of the ocean world, and they recycle nutrients, thus playing an important role in keeping coral reefs in good condition.
- Sea cucumbers are in high demand in China and Southeast Asia. It is primarily smuggled from Tamil Nadu to Sri Lanka in fishing vessels from Ramanathapuram and Tuticorin districts.

43. **Plant Discoveries 2020:**

- The Botanical Survey of India, in its new publication Plant Discoveries 2020 has added 267 new taxa/species to the country’s flora.
● The 267 new discoveries include 119 angiosperms; 3 pteridophytes; 5 bryophytes, 44 lichens; 57 fungi, 21 algae and 18 microbes.
● There are 14 new macro and 31 new micro fungi species recorded from various parts of India.
● 22% of the discoveries were made from the Western Ghats followed by the Western Himalayas (15%), the Eastern Himalayas (14%) and the Northeast ranges (12%).

44. WHO global air pollution standards:
The World Health Organization (WHO), in its **first-ever update since 2005**, has tightened global air pollution standards in recognition of the emerging science that the impact of air pollution on health is much more serious than earlier envisaged.

As per the latest standards:
1. The upper limit of annual PM2.5 as per the 2005 standards, which is what countries now follow, is 10 microgram per cubic metre. That has now been revised to five microgram per cubic metre.
2. The 24-hour ceiling used to be 25 microgram but has now dropped to 15.
3. The upper limit of PM10, or particulate matter of size exceeding 10 microgram, is 20 microgram and has now been revised to 15, whereas the 24-hour value has been revised from 50 to 45 microgram.

45. Sign Language Day:
- Indian Sign Language Research and Training Centre (ISLRTC), an autonomous body within the Department of Empowerment of Persons with Disabilities (Divyangjan) under the Ministry of Social Justice and Empowerment, will be celebrating ‘Sign Language Day’ on September 23, 2021.
- The theme for International Day of Sign Languages 2021 is “We Sign For Human Rights”.
- The day was **first celebrated in 2018 as a part of the International Week of the Deaf**.
- September 23 was chosen because on this date **the World Federation of the Deaf (WFD)** was established in 1951.
- The use of sign languages has been recognised and promoted by **the Convention on the Rights of Persons with Disabilities (CRPD)**. That is sign languages are equal in status to spoken language and obligates states parties to facilitate the learning of sign language and promote the linguistic identity of the deaf community.

46. Vishnuonyx:
- Researchers from the Universities of Tübingen and Zaragoza have discovered the fossil of a previously unknown species, which they have named **Vishnuonyx neptuni**, meaning ‘Neptune’s Vishnu’.
- Between 12.5 million and 14 million years ago, Vishnuonyx, members of a **genus of otters**, lived in the major rivers of southern Asia.
- Fossils of these now extinct otters were first discovered in sediments found in the foothills of the Himalayas. Now, a newly found fossil indicates it had travelled as far as Germany.
• This is the first discovery of any member of the Vishnuonyx genus in Europe; it is also its most northern and western record till date.

47. **Samudra Shakti:**
- Samudra Shakti is a bilateral exercise between the navies of India and Indonesia that was conceived in 2018.
- The exercise aims to strengthen the bilateral relationship, enhance mutual understanding and interoperability in maritime operations between the two navies.

48. **Hybodont Shark:**
- In a rare discovery, **teeth of new species of hybodont shark** of the Jurassic age have been reported for the first time from Jaisalmer by a team of the Geological Survey of India (GSI).
- Hybodonts, an extinct group of sharks, was a dominant group of fishes in both marine and fluvial environments during the Triassic and early Jurassic time.
- They became extinct at the end of the Cretaceous time 65 million years ago.

49. **Campaign launched for social accountability law:**
A State-wide campaign has been launched in Rajasthan for demanding passage of the social accountability law in the next Assembly session.
- “Social accountability” refers to actions initiated by citizen groups to hold public officials, politicians, and service providers to account for their conduct and performance in terms of delivering services, improving people’s welfare and protecting people’s rights.

50. **Taiwan Strait:**
- The Taiwan Strait is a 110-mile-wide channel that separates mainland China from the island of Taiwan.
- It is also known as the Formosa Strait or the Tai-hai (the Tai Sea).
- The Taiwan Strait makes up part of the South China Sea, and its northern portion is linked to the East China Sea.
- The strait borders the south eastern part of China and runs along the eastern part of China’s Fujian Province.

51. **Akash Prime:**
It is a newer version of Akash missile tested recently by DRDO.
- In comparison with the existing Akash System, Akash Prime is equipped with an indigenous active RF (radio frequency) seeker for improved accuracy.
- Other improvements also ensure more reliable performance under low temperature environments, at higher altitudes.

52. **World Maritime Day:**
World Maritime Day is celebrated annually on **30 September**.
● It aims to provide an opportunity to focus attention on the importance of shipping and other maritime activities and to emphasize a particular aspect of the work of the International Maritime Organization (IMO).
● Theme for 2021 is "Seafarers: at the core of shipping’s future".

53. **Zojila tunnel:**
   - Zojila tunnel will provide all-year connectivity between Srinagar valley and Leh.
   - It is set to be Asia’s longest bi-directional tunnel.
   - It will connect Srinagar, Dras, Kargil and Leh via a tunnel through the famous Zojila Pass.
   - Located at more than 11,500 feet above sea level, the all-weather Zojila tunnel will be **14.15 km long**.
   - It will make the travel on the 434-km Srinagar-Kargil-Leh Section of NH-1 free from avalanches, enhance safety and reduce the travel time from more than 3 hours to just 15 minutes.

**Context:**
Government is pushing to complete the massive Zojila tunnel, its showpiece infra project in Kashmir and Ladakh, before Republic Day, 2024.