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Current Affairs
(CONSOLIDATION)

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Polity and Governance

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Digital Quality of Life Index 2020: SurfShark

Why in News

Recently, the **Digital Quality of Life (DQL) Index 2020** has been released by **SurfShark**, an online privacy solutions provider.

➢ According to it, **India ranks among the lowest** in the world in terms of Internet quality.

Key Points

➢ **Coverage:** It is **global research on the quality of digital wellbeing in 85 countries** (81% of the global population).

➢ **Parameters:** The study indexes the countries by looking at **five fundamental pillars** that define the

digital quality of life namely, **internet affordability, internet quality, electronic infrastructure, electronic security and electronic government**.
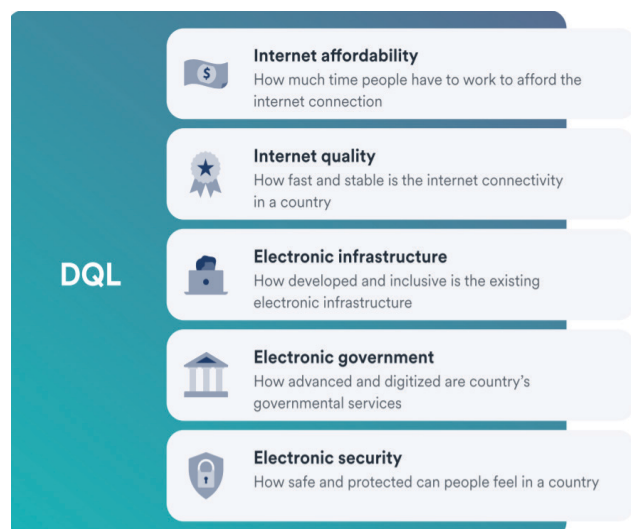
Note:

○ Underpinning these pillars are 12 indicators that are interrelated and work together to provide a measure of the overall digital quality of life.

➢ **GDP and DQL:** Although **GDP per capita has a strong correlation with the DQL**, there are countries that have a better digital quality of life with a lower GDP per capita than expected.

○ **13 countries** (Azerbaijan, Bulgaria, China, Croatia, Greece, etc.) **exceed the expected digital quality of life by outperforming others** in providing higher levels of e-security and more affordable internet connectivity.

○ **Affordability:** The **affordability of the internet plays a major role in ensuring accessibility** but has a notably **lower correlation with the DQL** than the other pillars.

➢ **Internet Infrastructure:** The **stability of the internet infrastructure** has become of crucial importance during the **Covid-19 pandemic** when video conferences replaced live meetings. Consequently, it impacted the quality of people's digital lives.

○ During the first month of the lockdowns, 49 of 85 countries experienced deteriorated speeds of mobile internet and 44 countries experienced deteriorated speeds of broadband connection.

➢ **Global Rankings:**

○ **7 out of 10 countries with the highest DQL are in Europe**, with **Denmark leading** among 85 countries.

● **Scandinavian countries excel** in offering high-quality digital wellbeing to their citizens.

○ **Canada leads in American continents, Japan in Asia, South Africa in Africa and News Zealand in Oceania**.

➢ **Indian Rankings:** India stands at the **overall rank of 57** out of the 85 countries.

○ **Internet Affordability: 9th place** and outperforms countries like the UK, the USA and China.

○ **Internet Quality: 78th place** and is almost at the bottom of the pillar.

○ **E-infrastructure: 79th place** and below countries like Guatemala and Sri Lanka.

○ **Electronic Security: 57th position**.

○ **E-government: 15th place** and just below countries like New Zealand and Italy.

Sutlej-Yamuna Link Canal Project

Why in News

Recently, the Chief Minister of Punjab has warned the Centre of political unrest in the state if asked to proceed with the **Sutlej-Yamuna Link (SYL) canal project**.

➢ Punjab has staked claims to Yamuna's waters and also reiterated the need for a tribunal on water sharing.

Key Points

➢ **Background:**

○ **1960:** The dispute can be traced back to the **Indus Water Treaty** between **India and Pakistan**, allowing the former '**free and unrestricted use' of Ravi, Beas and Sutlej**.

○ **1966: Creation of Haryana from the old (undivided) Punjab** presented the problem of giving Haryana its share of river waters.

● For Haryana to get its share of the waters of the Sutlej and its tributary Beas, a **canal linking the Sutlej with the Yamuna** was planned (SYL Canal).

● **Punjab refused to share waters with Haryana** stating it was against the **riparian principle** which dictates that the water of a river belongs only to the State and country or States and countries through which the river in question flows.

○ **1981:** Both states **mutually agreed for the re-allocation of water**.

○ **1982: Construction of 214-km SYL was initiated** in Kapoori village, Punjab.

● **Kapoori Morcha,** an agitation to protest against the proposed sharing of waters was launched which gave way to **militant uprisings** in the state**.**

SUTLEJ-YAMUNA LINK CANAL

○ **2002:** SC directed Punjab to complete the work in its territory.

○ **2004:** Punjab Assembly passed the **Punjab Termination of Agreements Act,**
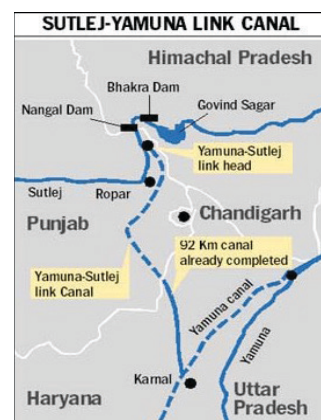
terminating its water-sharing agreements and thus jeopardising the construction of SYL in Punjab.

❍ **2016:** SC started hearings into a **presidential reference** (**Article 143**) **to decide on the legality of the 2004 Act** and declared that Punjab reneged on its promise to share the waters of rivers. Thus, the **act was termed constitutionally invalid**.

Article 143: Advisory Jurisdiction

➢ The Constitution under Article 143 **authorises the President to seek the opinion of the Supreme Court** in the **two categories** of matters:

❍ On any **question of law or fact of public importance** which has arisen or which is likely to arise. The SC **may tender or may refuse to tender its opinion** to the President.

❍ On any **dispute arising out of any pre-constitution** treaty, agreement, covenant, engagement, sanador other similar instruments. Here, the **SC must tender its opinion** to the President.

➢ In both the cases, the opinion expressed by the Supreme Court is **only advisory and not a judicial pronouncement**. Hence, it is **not binding on the President**.

➢ The references made by the President under Article 143 are **decided by a Bench consisting of at least five judges**.

➢ Few important references made by the President to the SC under its advisory jurisdiction are:

❍ Berubari Union, 1960.

❍ Cauvery Water Disputes Tribunal, 1992.

❍ Rama Janma Bhumi case, 1993.

❍ Punjab Termination of Agreements Act, 2004.

❍ 2G spectrum case verdict and the mandatory auctioning of natural resources across all sectors, 2012.

❍ **2020:**

● SC has directed the Chief Ministers of both states to **negotiate and settle the SYL canal issue** at the highest political level to be mediated by the Centre.

● Punjab has **asked for a tribunal for fresh time-bound assessment** of the water availability.

■ Punjab holds that there has been **no adjudication or scientific assessment of river waters** in the state till date.

■ The availability of Ravi-Beas water has also come down from the estimated 17.17 MAF in 1981 to 13.38 MAF in 2013. A fresh tribunal would ascertain all this.

➢ **Reasons for Punjab's Unwillingness:**

❍ Punjab is **facing severe water crisis due to over-exploitation of its underground aquifers** for the **wheat/paddy** monocycle.

● According to the **Central Ground Water Authority's report**, its underground water is over-exploited in about 79% of the state.

❍ Punjab feels that it has **utilised its precious groundwater resources to grow the crop for the entire country** and should not be forced to share its waters as it **faces the threat of desertification**.

❍ Also, the **youth of the state may start feeling that the state has been discriminated against** once the construction of the canal restarts.

● **Pakistan and secessionist organisations like Sikh For Justice** could exploit the situation to foment trouble in the state.

Bhadbhut Project

Why in News

Recently, the Gujarat government has awarded the contract for the **Bhadbhut project** in **Bharuch**.

➢ The **Inland Waterway Authority of India** has given clearance for this project.

➢ The project has **faced protests from local fishermen** because it is **likely to impact fishing patterns**, mainly those of **hilsa** (*Tenualosa ilisha*).

Key Points

➢ **About:**

❍ It is located across the river **Narmada**, 5 km from Bhadbhut village and 25 km from the mouth of the river, where it flows into the **Gulf of Khambhat**.

❍ The project is **part of the larger Kalpasar Project**, which entails construction of a **30-km dam across**

the **Gulf of Khambhat** between Bharuch and Bhavnagar districts.

- Kalpasar Project aims to **store Gujarat's 25% average annual surface water** resources..
- This reservoir will **store about 8,000 million cubic metres** (MCM) of surface water and will be one of the **world's largest freshwater reservoirs in the sea**.

➢ **Purpose:**
  ○ It will **prevent salinity ingress**.
    - Due to the reduced flow of fresh water, saline seawater gushes into the Narmada estuary during high tide, thus increasing salinity along the banks.
  ○ It will **stop most of the excess water flowing out of the** Sardar Sarovar Dam from reaching the sea and will **create a sweet water lake** of 600 MCM on the river, solving the **freshwater problems** in Bharuch.
  ○ This will tap the excess waters of the **Narmada, Mahisagar and Sabarmati rivers** in the reservoir.

➢ **Impact:**
  ○ The barrage is **expected to interfere with the migration and breeding cycle of hilsa**, blocking their natural entry.
    - Hilsa is a **marine fish which migrates upstream and arrives in the brackish water of the Narmada estuary** near Bharuch **for spawning** usually during the monsoon.
    - The **reduced outflow of water from the dam**, **industrial effluents flowing into the river** and **salinity ingress** are believed to be the major causes of the decline of hilsa.
  ○ Part of **Aliya Bet**, an **island in the delta of the Narmada** and known for **shrimp farming**, is likely to get submerged.
    - A portion of the forest in Aliya Bet too will get affected by the project.

RTI on PM-CARES Fund

Why in News

The **Prime Minister's Office (PMO)** has denied a **Right to Information** request related to the **Prime Minister's** Citizen Assistance and Relief in Emergency Situations Fund (PM-CARES Fund).

Key Points

➢ **Denied Information:** The PMO denied information on the **number of applications and appeals** related to PM-CARES and the Prime Minister's National Relief Fund.

➢ **Reason for denial:** The information was denied by the PMO on the grounds that providing it would **"disproportionately divert the resources of the office"** under **Section 7(9)** of the **Right to Information Act, 2005.**
  ○ According to the Section 7 (9) of the RTI Act, "an information shall ordinarily be provided in the form in which it is sought unless **it would disproportionately divert the resources** of the public authority or **would be detrimental to the safety** or **preservation** of the record in question."

➢ **Criticism:**
  ○ **Misuse:** The move has been criticized by the Central Information Commission (CIC) as **misuse of Section 7(9) by the PMO.**
  ○ **Kerala HC Judgement:** According to the judgment by the **Kerala High Court in 2010**, Section 7(9) does not exempt any public authority from disclosing information.
    - It only gives discretion to the public authority to provide the information **in a form other than the form in** which the information is sought for.
  ○ **Section 8 (1)** lists the various valid reasons for exemption against furnishing information under the Act and not Section 7(9).

➢ **Concerns around PM CARES Fund:**
  ○ Concerns have been raised around the **opaqueness** of PM CARES Fund's trust deed against public scrutiny of the expenditure of the fund.
  ○ The need for a new PM CARES Fund, given that a **PM National Relief Fund (PMNRF)** with similar objectives exists.
  ○ The decision to allow **uncapped corporate donations** to the fund to count as **CSR expenditure**, a facility not provided to PMNRF or the CM's Relief Funds, goes against previous guidelines stating that CSR should not be used to fund government schemes.

Note:

- A government panel had previously advised against allowing CSR contributions to the PMNRF on the grounds that the **double benefit of tax** exemption would be a **"regressive incentive"**.
- Donations to PMCARES have been made tax-exempt, and can be counted against a company's Corporate Social Responsibility (CSR) obligations. It is also exempt from the Foreign Contribution (Regulation) Act, 2010, and **accepts foreign contributions**.

Section 2(h) of the RTI Act, 2005

➢ Under **section 2(h) of the RTI Act "Public authority"** means any authority or body or institution of self government established or constituted—

  ○ by or under the Constitution;
  ○ by any other law made by Parliament/State Legislature.
  ○ by notification issued or order made by the appropriate Government, and includes any—
    • body owned, controlled or substantially financed;
    • non-Government organisation substantially financed, directly or indirectly by funds provided by the appropriate Government.
  ○ Recently, The Supreme Court has ruled that the office of the **Chief Justice of India (CJI) is a public authority** under the Right to Information (RTI) Act, 2005.

Section 8 of the RTI Act, 2005

➢ This provides for exemption from disclosure of information such as-

  ○ Which would affect the sovereignty and integrity of India, the security, strategic, scientific or economic interests of the State;
  ○ Which has been expressly forbidden to be published by any court of law or tribunal;
  ○ Which would cause a breach of privilege of Parliament or the State Legislature;
  ○ Information including commercial confidence, trade secrets or intellectual property;
  ○ Information received in confidence from foreign government;
  ○ Information which would endanger the life or physical safety of any person; etc.

No Audit of PM-CARES Funds by CAG: SC

Why in News

Recently, the Supreme Court (SC) has held that **being a public charitable trust**, "there is no occasion for an audit of **Prime Minister's Citizen Assistance and Relief in Emergency Situations (PM-CARES) Fund** by the **Comptroller and Auditor General (CAG) of India**".

➢ It also refused to order the transfer of funds from the PM-CARES Fund to the **National Disaster Response Fund (NDRF)**.

Key Points

➢ **No Audit by CAG:** While NDRF is to be audited by CAG according to the **Disaster Management (DM) Act 2005**, a public charitable trust like PM-CARES Fund need not be.
  ○ The Fund will, however, be **audited by an independent auditor.**

➢ **No Transfer of Funds of PM-CARES to NDRF:** PM CARES Fund is a charitable trust registered under the **Registration Act, 1908**. The trust does not receive any Budgetary support or any Government money.
  ○ NDRF, formed under **Section 46** of the DM Act of 2005, was provided for by Central and State Budgets.

➢ **Individuals Can Contribute to NDRF:** There is no statutory prohibition on individuals to make voluntary contributions to NDRF under **Section 46(1)(b)** of the DM Act.

➢ **No New National Plan:** SC rejected the request for a direction to the government to put in place a new **National Disaster Management Plan** under the DM Act, to deal with Covid-19 situation.
  ○ The bench held that all aspects of epidemics, all measures to contain an epidemic, preparedness, response, mitigation have been elaborately dealt in the **National Disaster Management Plan, 2019**.

➢ **No Intervention in Minimum Standards of Relief:** SC declined to intervene with the "minimum standards of relief" and the necessary guidelines issued by the government under **Section 12** of the DM Act.
  ○ The provision holds that the **National Authority shall recommend guidelines for the minimum standards of relief to be provided to persons**

affected by a disaster, which shall include the minimum requirements to be provided in the relief camps in relation to shelter, food, drinking water, medical cover and sanitation; special provisions to be made for widows and orphans; ex gratia assistance on account of the loss of life as also assistance on account of damage to houses and for the restoration of means of livelihood, among other things.

Background

➢ The government authorities **invoked their respective powers** under the DM Act, 2005 to deal with the **Covid-19 outbreak** in the country.

➢ The PM-CARES Fund was created to **deal with any kind of emergency or distress situation like posed by the Covid-19 pandemic.**

➢ The Prime Minister's Office (PMO) said that the **PM-CARES Fund is not a public authority** under the ambit of the Right to Information Act (RTI), 2005.

➢ It also **denied information on the number of applications and appeals** related to PM-CARES and the Prime Minister's National Relief Fund, raising **concerns** on its **transparency** and **accountability**.

➢ The Fund's website informs that it collected more than Rs. 3,076 crore in the first five days after it was set up which also includes foreign donations.

○ Rs. 3,100 crore has been sanctioned from the Fund to be spent on ventilators, migrant worker welfare and vaccine development.

National Digital Health Mission

Why in News

The Prime Minister of India announced the launch of **National Digital Health Mission (NDHM)** on 74th Independence Day.

➢ This is a part of three digital announcements by the Prime Minister including a new cyber security policy and optical fibre connectivity to six lakh villages in the country.

Key Points

➢ The NDHM is a complete **digital health ecosystem.** The digital platform will be launched with four key features — **health ID, personal health records, Digi Doctor** and **health facility registry.**

➢ At a later stage, it will also include **e-pharmacy** and **telemedicine services**, regulatory guidelines for which are being framed.

➢ The NDHM is implemented by the **National Health Authority (NHA)** under the Ministry of Health and Family Welfare.

○ The **National Health Authority (NHA)**, is also the implementing agency for **Ayushman Bharat.**

➢ The platform will be available in the form of an **app** and **website**.

➢ The **Digi Doctor** option will allow doctors from across the country to enrol and their details, including their contact numbers if they want to provide them, will be available.

○ These doctors will also be **assigned digital signatures for free** which can be used for **writing prescriptions.**

○ It will be **voluntary for the hospitals and doctors to** provide details for the app.

➢ **Health ID**

○ The national health ID will be a **repository of all health-related information** of every Indian.

○ **Various healthcare providers** — such as hospitals, laboratories, insurance companies, online pharmacies, telemedicine firms — will be expected to participate in the health ID system.

○ Every patient who wishes to have their health records available digitally must create a **unique Health ID**, using their basic details and mobile or **Aadhaar** number.

○ Each Health ID will be linked to a **health data consent manager,** which will be used to seek the patient's consent and allow for seamless **flow of health information from the Personal Health Records module.**

○ The Health ID will be **voluntary** and **applicable across state**s, hospitals, diagnostic laboratories and pharmacies.

Background

➢ The **National Health Policy 2017** had envisaged creation of a digital health technology eco-system aiming at developing an integrated health information system that serves the needs of all stakeholders and improves efficiency, transparency and citizens' experience with linkage across public and private healthcare.

Note:

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○ A Digital Health ID was proposed to "greatly reduce the risk of preventable medical errors and significantly increase quality of care".

➢ In the context of this, the central government's think-tank NITI Aayog, in **June 2018,** floated a consultation of a digital backbone for India's health system — **National Health Stack (NHS)**.

○ NHS was intended to be a digital infrastructure built with the aim of making the health insurance system more transparent and robust, while factoring in the uniqueness of India's health sector, and the political realities of federalism.

➢ A committee headed by former Unique Identification Authority of India (UIDAI) chairman released the **National Digital Health Blueprint** in **July 2019.**

○ NDHB recognised the need to establish a specialised organisation, called the **National Digital Health Mission (NDHM**), to facilitate the evolution of the National Digital Health Ecosystem.

➢ On **7th August 2020**, National Digital Health Mission (NDHM) released its latest **strategic document**, outlining the envisioned digital registries of doctors, hospitals, pharmacies, and insurance companies, digital personal health records, and digital clinical decision systems.

National Health Policy 2017

➢ Aiming to provide healthcare in an "**assured manner"** to all, the NHP 2017 strives to address current and emerging challenges arising from the ever-changing socio-economic, technological and epidemiological scenarios.

➢ **Features**

○ The policy advocates a **progressively incremental assurance-based approach.**

○ It denotes an important change towards a comprehensive primary health care package which includes care for majo**r NCDs (non-communicable diseases), mental health, geriatric health care, palliative care and rehabilitative care services.**

○ It envisages providing larger package of assured comprehensive primary health care through the '**Health and Wellness Centres**'

○ The policy proposes **free drugs, free diagnostics and free emergency and essential health care services in all public hospitals** in a bid to provide access and financial protection.

○ It also envisages a **three-dimensional integration of AYUSH systems** encompassing cross referrals, co-location and integrative practices across systems of medicine.

○ It also seeks an **effective grievance redressal mechanism.**

➢ **Health Expenditure:** The policy proposes raising public health expenditure t**o 2.5% of the GDP by 2025.**

Prime Minister's Employment Generation Programme

Why in News

The **approval of projects under the Prime Minister's Employment Generation Programme (PMEGP) increased by 44%** during the first five months (April-August) of the financial year 2020-21.

➢ **Khadi and Village Industries Commission (KVIC)** has approved and forwarded 1.03 lakh project applications to the banks as compared to 71,556 projects during the corresponding period in 2019.

○ KVIC is a statutory organization under the administrative control of the Ministry of MSME.

➢ The higher number of projects approved **signifies the government's resolve to create self-employment** and sustainable livelihood for the people by promoting **local manufacturing.**

Key Points

➢ **Launch:** PMEGP is a **credit-linked subsidy programme, launched in 2008** for the generation of **employment opportunities through establishment of micro-enterprises** in rural and urban areas.

➢ **Administration:** It is a **central sector scheme** being administered by the **Ministry of Micro, Small and Medium Enterprises** (MSME).

➢ **Implementing Agency at the National Level: Khadi and Village Industries Commission.**

➢ **Features:** It **allows entrepreneurs to set up factories or units.**

○ **Eligibility:**

● Any individual, **above 18 years** of age.

● **Only new projects/units** are considered for sanction of loans.

Note:

- Self-help groups (SHGs) that have not availed benefits under any other public scheme, societies, production co-operative societies, and charitable trusts.

➢ **Maximum Cost of Project/Unit Admissible:**
  ❍ **Manufacturing Sector:** Rs. 25 lakh.
  ❍ **Service Sector:** Rs. 10 lakh.

➢ **Government Subsidy:**
  ❍ **Rural Areas**: 25% for general category and 35% for the special category, which includes SC/ST/OBC/Minorities, Northeast Region, Hill and Border Areas.
  ❍ **Urban Areas:** 15% for general category and 25% for special category.

➢ **Role of Banks**: Loans are provided by Public Sector Banks, Regional Rural Banks, Co-operative Banks and Private Scheduled Commercial Banks approved by respective State Task Force Committee.

➢ The Ministry has also launched a **scheme of 'second financial assistance'** to help the PMEGP and **Mudra** units expand or upgrade.

National Strategy for Financial Education

Why in News

The **Reserve Bank of India** (RBI) has released the **National Strategy for Financial Education (NSFE): 2020-2025 document** for creating a **financially aware and empowered India.**

➢ It is the **second** NSFE and the **first one was released in 2013**.

Key Points

➢ This NSFE for the period 2020-2025 has been prepared by the **National Centre for Financial Education (NCFE)** in consultation with all the **Financial Sector Regulators** viz. **RBI**, **Securities and Exchange Board of India** (SEBI), **Insurance Regulatory and Development Authority of India** (IRDAI), **Pension Fund Regulatory and Development Authority** (PFRDA), etc. under the aegis of the **Technical Group on Financial Inclusion and Financial Literacy** (TGFIFL).
  ❍ NCFE is a **Section 8 (Not for Profit) Company** under the **Companies Act, 2013** promoted by RBI, SEBI, IRDAI and PFRDA.

Financial Stability and Development Council (Chair: Hon'ble Union Finance Minister)

Financial Stability and Development Council-Sub Committee (Chair: Governor, RBI)

Technical Group on Financial Inclusion and Financial Literacy (Chair: Deputy Governor, RBI)

DFS and DEA, Ministry of Finance	RBI, SEBI, IRDAI and PFRDA	NCFE	Special Invitees (NPCI, SROs, DFIs, NGOs etc.)
1. Co-ordination with other Ministries 2. Funding support	1. Sector specific education 2. Process specific education 3. Supporting NCFE	1. Basic financial education 2. Creation of content on financial education 3. Development of e-learning module and Financial Education App 4. Research, Surveys and dissemination of information	1. Development of Content 2. Research 3. Collaboration and Support

➢ It emphasizes a **multi-stakeholder-led approach** for empowering various sections of the population to develop adequate **knowledge, skills, attitudes and behaviour** which are needed to manage their money better and to plan for the future i.e. ensuring their **financial well-being.**

➢ It has recommended a **'5 C' approach** for dissemination of financial education in the country:
  ❍ **Content:** Financial Literacy content for various sections of the population.
  ❍ **Capacity:** Develop the capacity and '**Code of Conduct'** for financial education providers.
  ❍ **Community:** Evolve community-led approaches for disseminating financial literacy in a sustainable manner.
  ❍ **Communication:** Use technology, media and innovative ways of communication for dissemination of financial education messages.
  ❍ **Collaboration:** Streamline efforts of **other stakeholders** for financial literacy.

➢ **Strategic Objectives:**
  ❍ Inculcate **financial literacy** concepts among the various sections of the population through financial education to make it an important life skill.
  ❍ Encourage **active savings** behaviour.
  ❍ Encourage **participation** in financial markets to meet financial goals and objectives.
  ❍ Develop **credit discipline** and encourage availing credit from formal financial institutions as per requirement.
  ❍ Improve usage of **digital financial services** in a safe and secure manner.

Note:

- Manage risk at various life stages through relevant and suitable **insurance** cover.
- Plan for old age and retirement through coverage of suitable **pension** products.
- Knowledge about **rights, duties and avenues** for grievance redressal.
- Improve **research and evaluation** methods to assess progress in financial education.

➤ The strategy also suggests the adoption of a robust '**Monitoring and Evaluation Framework**' to assess the progress made.

- TGFIFL would be responsible for periodic **monitoring and implementation** of NSFE under the oversight of the **Financial Stability and Development Council (FSDC).**
- TGFIFL was set up in November 2011 by the FSDC.

➤ Recently, RBI has also released the **National Strategy for Financial Inclusion (NSFI)** for the period 2019-2024.

- It is an ambitious strategy which aims to strengthen the ecosystem for various modes of digital financial services in all Tier-II to Tier VI centres to create the **necessary infrastructure to move towards a less-cash society** by March 2022.

| Process of Financial Education | → | Achievement of Financial Literacy | → | Financial Well-Being |

Reservations Based on Place of Birth

Why in News

Recently, the Chief Minister of Madhya Pradesh has announced that the **government jobs will be reserved** for the "children" of the state and legal provisions will be made for the same.

Key Points

➤ Arguments Against Providing Reservation Based on Place of Birth:

- **Article 16** in the Constitution of India refers to equality of opportunity in government jobs.
  - **Article 16(1)** provides for equality of opportunity for all citizens in matters relating to 'employment or appointment' to any office under the State.

- **Article 16(2)** provides that there cannot be any discrimination on grounds only of religion, race, caste, sex, descent, place of birth, residence or any of them.
- Reservation on the basis of domicile and residence would mean **discrimination** as even a minimal departure creates an irrational class depriving a meritorious candidate of his fundamental rights.
- This kind of parochialism encourages **regionalism** and **threatens the unity of the nation.**

➤ Arguments in Favour of Providing Reservation Based on Place of Birth:

- **Article 16(3), allows for making provisions in government appointments with respect to residence** (not place of birth).
  - The **Parliament (and not the legislature of a state)** can prescribe residence within a state or union territory as a condition for certain employment or appointments in that state or union territory, or local authority or other authority within that state or union territory.
- Some states have been using the loopholes in the laws to reserve government jobs for locals. They have used **other criteria like language tests or proof of having resided/ studied in the state for a certain period of time.**
  - In Maharashtra, only those living in the state for over 15 years with fluency in Marathi are eligible.
  - In Jammu and Kashmir, government jobs are reserved for "domiciles".
  - In West Bengal, reading and writing skills in Bengali is a criterion in recruitment to some posts.
  - Last year, the Government of Karnataka issued a notification mandating private employers to give "priority" to Kannadigas for clerical and factory jobs in the state.
- It is argued that giving preferential treatment to the residents of a state will help in **rightful allocation of the resources of the state** and would encourage people to work within the boundaries of their state.
- This is also seen as a way to **stop migration of people** from backward states to metropolitans, thereby reducing the burden on such cities.

Note:

Distinction between
Domicile Status and Place of Birth

➢ According to the SC ruling in *DP Joshi vs Madhya Bharat case,1955,* domicile or status of residence is a fluid concept that can change from time to time, unlike place of birth, which is fixed.

➢ Domicile of a person means his **permanent home**.

➢ The place of birth is one of several grounds on which domicile status is conferred.

➢ **Judgments by the Courts:**

○ In **2019, the Allahabad High Court** struck down a recruitment notification issued by the Uttar Pradesh Subordinate Service Selection Commission, which prescribed preference for women who were "original residents" of the state.

○ In the *Kailash Chand Sharma vs State Of Rajasthan case, 2002*, the Supreme Court ruled that residence, be it within a state, district or any other area, cannot be a basis for preferential reservation or treatment.

○ While the Constitution specifically prohibits discrimination based on place of birth, the Supreme Court, in *DP Joshi vs Madhya Bharat case, 1955* has held domicile reservation, especially in educational institutions, as constitutional.

National Recruitment Agency

Why in News

The Union Cabinet chaired by the Prime Minister has decided to set up a **National Recruitment Agency (NRA)** to conduct a **common preliminary examination** for various recruitments in the central government.

Key Points

➢ **About:**

○ The NRA will conduct the **Common Eligibility Test (CET)** for recruitment to **non-gazetted posts** in government and public sector banks.

● Approximately 1.25 lakh government jobs are advertised every year for which 2.5 crore aspirants appear in various examinations.

○ This test aims to **replace multiple examinations** conducted by different recruiting agencies for selection to government jobs advertised each year, with a **single online** test.

● The Government also plans to provide outreach and awareness facilities to assist candidates in rural and far flung areas to familiarize them with the online examination system.

● A 24x7 helpline will be set up for answering complaints and queries.

○ The present recruitment agencies— **Staff Selection Commission (SSC) , Railway Recruitment Board (RRB) and the Institute of Banking Personnel Selection (IBPS)**— will remain in place.

○ Based on the preliminary screening done at the CET score level, final selection for recruitment shall be made through **separate specialised Tiers** (II, III, etc.) of examination which shall be **conducted by the respective recruitment agencies**.

➢ **Salient Features of CET:**

○ The Common Eligibility Test will be held **twice a year.**

○ There will be different CETs for **graduate level, 12th Pass level and 10th pass level** to facilitate recruitment to vacancies at various levels.

○ The curriculum for CET would be **common**.

○ The CET will be conducted in **12 major Indian languages.** This is a major change, as hitherto examinations for recruitment to Central Government jobs were held **only in English and Hindi.**

○ Initially, CET will cover recruitments made by three agencies : viz. SSC, RRB and IBPS at **Group B and C (non - technical)** posts. This will be expanded in a phased manner.

○ CET will be held in **1,000 centres** across India in a bid to remove the currently prevalent urban bias. There will be an examination centre in **every district** of the country. There will be a special thrust on creating **examination infrastructure in the 117 aspirational districts.**

○ CET will be a first level test to shortlist candidates and the score will be **valid for three years**.

○ There shall be **no restriction on the number of attempts** to be taken by a candidate to appear in the CET subject to the **upper age limit.**

● Age relaxation for **SC/ST and OBC** candidates as per existing rules will apply.

➢ **About NRA:**

○ National Recruitment Agency will be a Society registered under the **Societies Registration Act, 1860.**

- It will be headed by a **Chairman** of the rank of the Secretary to the Government of India. It will have **representatives** of the Ministry of Railways, Ministry of Finance/Department of Financial Services, the SSC, RRB & IBPS.
- The Government has sanctioned a sum of Rs. 1517.57 crore for the National Recruitment Agency (NRA).
- The expenditure will be undertaken over a **period of three years.**
- It is envisioned that the NRA would be a specialist body bringing the state-of-the-art technology and best practices to the field of Central Government recruitment.

➢ **Advantages for Students:**
- Removes the **hassle** of appearing in multiple examinations. Applicants are required to register on a **single Registration portal.**
- Single examination fee would **reduce the financial burden** that multiple exams imposed.
- Since exams will be held in every district, it would substantially **save travel and lodging cost** for the candidates. Examination in their own district would encourage more and **more women candidates** also to apply for government jobs.
- It will also prevent the issue of **clashing examination dates.**

➢ **Advantages for Institutions:**
- Removes the **hassle of conducting preliminary / screening tests** of candidates.
- Drastically **reduces the time of recruitment cycle.**
- Brings **standardization** in examination pattern.
- **Reduces costs** for different recruiting agencies. **Rs 600 crore savings** expected.

Election Commissioner

Why in News

Recently, the Centre has appointed **Rajiv Kumar as the Election Commissioner.** He has been appointed **in place of Ashok Lavasa,** who has resigned to **join the Asian Development Bank (ADB).**

Key Points

➢ **Constitutional Provisions:**

- The **Election Commission of India** is an **autonomous constitutional authority responsible** for administering Union and State election processes in India. The body **administers elections to the Lok Sabha, Rajya Sabha, State Legislative Assemblies** in India, and the **offices of the President and Vice President** in the country **(Article 324).**
  - It is **not concerned with the elections to panchayats and municipalities** in the states. For this, the Constitution of India provides for a separate **State Election Commission.**
- The Election Commission shall **consist of the chief election commissioner and such number of other election commissioners**, if any, as the **President may from time to time fix.**
  - Presently, it consists of the Chief Election Commissioner and two Election Commissioners.

➢ **Appointment and Tenure of Commissioners:**
- The **President appoints** Chief Election Commissioner and Election Commissioners.
- They have **tenure of six years, or up to the age of 65 years**, whichever is earlier.
- They enjoy the **same status** and receive salary and perks as available to **Judges of the Supreme Court of India.**
- **All Election Commissioners have equal say** in the decision making of the Commission.

➢ **Removal:**
- They **can resign anytime or can also be removed** before the expiry of their term.
  - The **Chief Election Commissioner can be removed** from his office in the **same manner** and on **same grounds** as a **judge of the Supreme Court.**
  - In other words, he can be removed by the President on the basis of a **resolution** passed to that effect by **both the Houses of Parliament with a special majority,** either on the ground of **proved misbehaviour or incapacity.**
  - Thus, he **does not hold his office until the pleasure of the President,** though he is appointed by him.
- Any other **election commissioner** or a regional commissioner cannot be removed from office except on the **recommendation of the chief election commissioner.**

➢ **Limitations:**

Note:

drishti

○ The Constitution has **not prescribed the qualifications** (legal, educational, administrative or judicial) of the members of the Election Commission.

○ The Constitution has **not specified the term of the members** of the Election Commission.

○ The Constitution has **not debarred the retiring election commissioners from any further appointment** by the government.

Sale of Electoral Bonds

Why in News

The Government may allow the sale of **electoral bonds** ahead of Assembly elections in Bihar in October-November 2020.

➢ The **Electoral Bond Scheme, 2018** was notified in the official gazette on **2nd January 2018** and allows **periodic issuances of electoral bonds**.

Key Points

➢ Electoral Bond is a **financial instrument for making donations to political parties**.

➢ The bonds are issued in **multiples of Rs. 1,000, Rs. 10,000, Rs. 1 lakh, Rs. 10 lakh and Rs. 1 crore without any maximum limit**.

➢ **State Bank of India is authorised to issue and encash** these bonds, which are **valid for fifteen days** from the date of issuance.

➢ These bonds are **redeemable in the designated account of a registered political party**.

○ Every party that is **registered under section 29A of the Representation of the Peoples Act, 1951** and has **secured at least 1% of the votes polled in the most recent Lok Sabha or State election** will be allotted a **verified account** by the **Election Commission of India**.

○ Electoral bond **transactions can be made only via this account**.

➢ The bonds are **available for purchase by any person** (who is a citizen of India or incorporated or established in India) **for a period of ten days each in the months of January, April, July and October** as may be specified by the Central Government.

○ A person being an individual can buy bonds, **either singly or jointly with other individuals**.

○ Donor's name is **not** mentioned on the bond.

➢ During general elections, the **central government may specify an additional period of thirty days for sale** of these bonds.

➢ There have been some occasions when the **government has deviated from the specified periodicity** for issuance of these bonds.

○ For example, the **sixth tranche** of electoral bonds was issued from **1st-10th November 2018** and electoral bonds were sold in the months of **March, April and May during 2019 general elections**.

➢ It acts as a **check against traditional under-the-table donations**

➢ **Controversial Status:**

○ **Anonymity:**

● **Neither the donor** (who could be an individual or a corporate) **nor the political party is obligated to reveal** whom the donation comes from.

■ In 2019, the **Supreme Court** held that all political parties who had received donations through electoral bonds must submit details to the Election Commission of India.

● This undercuts a fundamental constitutional principle, the **freedom of political information**, which is an integral element of **Article 19(1) (a) of the Constitution**.

○ **Defeating Transparency:**

● It **defeats the fundamental principle of transparency in political finance** because it **conceals from public scrutiny the identity** of the corporates and moneybags.

○ **Asymmetric Opacity:**

● The **government is always in a position to know who the donor is** because the bonds are purchased through the SBI.

● This asymmetry of information **threatens to colour the process in favour of whichever political party is ruling** at the time.

○ **Chanel of Blackmoney:**

● **Elimination of a cap of 7.5% on corporate donations**, elimination of requirement to **reveal political contributions in profit and loss statements** and also the elimination of the provision that a **corporation must be three years in existence**, undercuts the intent of the scheme.

Note:

- Any **troubled, dying or shell companies can donate an unlimited amount anonymously** to a political party giving them a **convenient channel for business** to round-trip their cash parked in tax havens for a favour or advantage granted in return for something.

ARIIA 2020 Rankings

Why in News

Recently, the **Atal Ranking of Institutions on Innovation Achievements (ARIIA) 2020** rankings was announced.

➢ Around 674 institutions participated in the ARIIA rankings in 2020 compared with 496 in 2019.

➢ **Indian Institute of Technology (IIT) Madras** has topped in the Institute of National Importance, Central Universities & Central Funded Technical Institutes category.

➢ **Odisha's Kalinga Institute of Industrial Technology (KIIT)** topped in the private or self-financed universities category.

Atal Ranking of Institutions on Innovation Achievements (ARIIA)

➢ It is an **initiative of the Ministry of Education**, Government of India to systematically rank all the major higher educational institutions and universities in India on indicators related to **"Innovation and Entrepreneurship Development"** amongst students and faculties.

➢ More than quantity, ARIIA **focuses on quality of innovations** and tries to measure the real impact created by these innovations nationally and internationally.

➢ **Rank Categorisation:**
  - Two broad categories: **publicly funded institutions** and **private or self-financed institutions.**
  - The **publicly funded institutions** have been further categorized into:
    - Institute of National Importance, Central Universities & Central Funded Technical Institutes.
    - State University & Deemed Universities (Government & Government Aided)
    - Government and Government / Aided College/ Institutes

  - The **private or self-financed institutions** have been categorized further into:
    - private or self-financed universities
    - private or self-financed college/institutes
  - A **6th sub- category** for higher educational institutions **for women** has been introduced in 2020 **to encourage women** and bringing **gender parity** in the areas of innovation and entrepreneurship

➢ **Major Indicators For Rankings:**
  - Budget & Funding Support.
  - Infrastructure & Facilities.
  - Awareness, Promotions & support for Idea Generation & Innovation.
  - Promotion & Support for Entrepreneurship Development.
  - Innovative Learning Methods & Courses.
  - Intellectual Property Generation, Technology Transfer & Commercialization.
  - Innovation in Governance of the Institution.

Expansion of the NCC

Why in News

Recently, the Ministry of Defence has approved the proposal to expand the **National Cadet Corps (NCC)** in border and coastal districts.

➢ Restructuring of the NCC was one of the **key recommendations of the Committee of Experts (CoE) headed by Lt Gen DB Shekatkar (Retd)** in 2016.

Shekatkar Committee

➢ The Ministry of Defence under the chairmanship of Lt. Gen (Retd) DB Shekatkar had constituted a committee to recommend measures to **enhance combat capability and rebalance defence expenditure of the armed forces** which submitted its report in December 2016.

➢ **Few Recommendations:**
  - Closure of Military Farms and Army Postal Establishments in peace locations.
  - Enhancement in standards for recruitment of clerical staff and drivers in the Army.
  - Improving the **efficiency of the National Cadet Corps.**

○ Recommended a roll-on defence budget to have enough capital expenditure available for modernisation as against the present practice of surrendering unspent capital budget at the end of each financial year.

Key Points

➢ **Expansion:** A total of one lakh cadets from **173 border and coastal districts** will be inducted into the NCC of which **one-third of them will be girls.**

○ The expansion plan would be implemented in partnership with the States.

➢ **Training and Administration:** The **Army** will provide training and administrative support to the NCC units located **in the border areas**, **Navy** to the units in the **coastal areas** and **Indian Air Force** to the units **close to Air Force stations**.

➢ **Benefit:** It will provide **trained manpower for disaster management** and **skill training to youth** for making their career in the armed forces.

○ It will increase **youth's interest in careers** in Navy, Coast Guard and also Merchant shipping avenues.

○ In the border area, the trained cadets **can play supporting roles** to the Armed forces in various forms.

National Cadet Corps

➢ The NCC was **formed in 1948** (on the recommendation of **H. N. Kunzru Committee**-1946), and has its roots to British era uniformed youth entities like University Corps or University Officer Training Corps.

○ Currently it has a strength of around 14 lakh cadets from Army, Navy and Air Force wings.

➢ The NCC falls under the **purview of the Ministry of Defence** and is headed by a **Director General of three-star military rank.**

➢ It **enrolls cadets at high school and college leve**l and also awards certificates on completion of various phases.

○ The NCC cadets receive basic military training at various levels and also have academic curriculum basics related to Armed forces and their functioning.

○ Various training camps, adventure activities and military training camps are an important aspect of NCC training.

Swachh Survekshan 2020: MoHUA

Why in News

Recently, the **Swachh Survekshan 2020** report has been launched by the **Union Ministry of Housing and Urban Affairs** (MoHUA).

➢ It is the **fifth edition** of the **annual cleanliness urban survey conducted by the MoHUA**. It is **one of the world's largest sanitation surveys**.

Key Points

➢ This year the Ministry has released **rankings based on the categorisation of cities on population**, **instead of releasing overall rankings**.

○ The categories based on population were introduced in 2019 for the first time but the exact groupings have been changed this year.

➢ **Major Categories and Rankings:**

○ Cities with a population of more than 10 lakh:

● **Indore** was ranked first, **securing the rank for the fourth consecutive year**, followed by **Surat and Navi Mumbai**.

● All the National Capital Region (NCR) cities, Greater Mumbai, Bruhat Bengaluru, Amritsar, Kota, Chennai, etc. have performed poorly.

● **Patna** with the rank 47, is at the bottom of the list.

○ **Cities with a population of 1-10 lakh:**

● **Chhattisgarh's Ambikapur** has been surveyed as the cleanest city in the country, followed by **Mysore and New Delhi.**

● **Bihar's Gaya** with a rank of 382, is at the bottom.

○ **Cities with a population of less than 1 lakh:**

● **Karad** has been ranked as the cleanest followed by Sasvad and Lonavala (all three in Maharashtra).

○ **Other Categories:**

● **Varanasi** has been ranked the cleanest among 46 **Ganga towns**.

● **Jalandhar** got the top rank among **cantonments**.

● **New Delhi** was the cleanest **capital city**.

● **Chhattisgarh** was ranked the cleanest **State out of those with over 100 Urban Local Bodies** (ULBs) or cities.

Note:

- **Jharkhand** was the cleanest **state with less than 100 ULBs** or cities.

➢ The **dynamic and evolving nature** of the Swachh Survekshan framework was also highlighted. From being just a monitoring framework for measuring outcomes, it has become an implementation accelerator for **Swachh Bharat Mission-Urban** (SBM-U), enabling sustainability of outcomes by institutionalizing cleanliness.

    ○ SBM-U was **launched in 2014**, with the objective of making urban India **100% Open Defecation Free (ODF) along with 100% scientific solid waste management**.

    ○ It has a deep **impact on health, livelihoods, quality of life and behaviour**, which proved to be very helpful while dealing with the **Covid-19 pandemic** as well.

➢ MoHUA is also actively **working on coming up with a second phase of the SBM-U** (**SBM 2.0**), which was initially supposed to be till March 2020 but has been extended till March 2021. **It envisions to:**

    ○ **Take current targets further**, making cities open defecation-free, including 100% sludge management and zero dumping of waste in the open.

    ○ **Safe containment, transportation and disposal of faecal sludge and septage** from toilets and also the grey and black water from households and establishments.

    ○ **Treat all wastewater before discharging into water bodies** and their maximum possible re-use.

    ○ **Provide adequate safety gear and mechanised equipment to all sanitation workers** with maximum attention.

➢ To ensure the sustainability of on-ground performance of cities, the MoHUA had also introduced **Swachh Survekshan League** in 2019.

    ○ It is a **quarterly cleanliness assessment of cities and towns done in three quarters with 25% weightage integrated** into the final Swachh Survekshan results.

➢ In **July 2020**, MoHUA launched the **sixth edition of the survey, Swachh Survekshan 2021** and also introduced a new performance category, the **Prerak DAUUR Samman**.

    ○ It has a total of **five additional subcategories** namely *Divya* (Platinum), *Anupam* (Gold), *Ujjwal* (Silver), *Udit* (Bronze) and *Aarohi* (Aspiring).

National Council for Transgender Persons

Why in News

Recently, the **Ministry of Social Justice and Empowerment** has constituted the **National Council for Transgender Persons**, under the **Transgender Persons (Protection of Rights) Act, 2019.**

Features of Transgender Persons Act, 2019

➢ Seeks to establish **National Council for Transgender persons.**

➢ **Definition of a Transgender Person:** The Act defines a transgender person as one whose gender does not match the gender assigned at birth. It includes transmen and trans-women, persons with intersex variations, gender-queers, and persons with socio-cultural identities, such as kinnar and hijra.

➢ **Certificate of Identity:** A transgender person shall have the right to self-perceived gender identity.

    ○ A **certificate of identity** can be obtained at the District Magistrate's office and a revised certificate is to be obtained if sex is changed.

➢ Provides a transgender the **right of residence** with parents and immediate family members.

➢ **Prohibition Against Discrimination:** The Act **prohibits discrimination** against a transgender person in various sectors such as education, employment, and healthcare etc.

➢ **Punishment:** It states that the offences against transgender persons will attract imprisonment between six months and two years, in addition to a fine.

Key Points

➢ **Aim:**

    ○ To **mainstream the transgender community's concerns**, focusing on **livelihood issues** as well as to raise awareness about the trans community, so that transpersons are accepted within families and in the larger society.

    ○ To ensure that **transgender welfare boards** are set up in all States and essential needs of the transgender community, like housing, food, healthcare and education are met.

➢ **Functions:**

○ **Advising the Central government** on the formulation of policies, programmes, legislation and projects with respect to transgender persons.

○ **Monitoring and evaluating** the impact of policies and programmes designed for achieving equality and full participation of transgender persons.

○ **Reviewing and coordinating** the activities of all the departments.

○ **Redressing grievances** of transgender persons.

○ Performing such **other functions** as prescribed by the Centre.

➢ **Composition:**

○ Its **chairperson** will be the Union Minister of the **Ministry of Social Justice and Empowerment.**

○ It will also consists of:

● **Representatives from five states or Union Territories (**one each from the north, south, east, west and northeast regions), on a rotational basis.

● **Five members of the trangender community** (one each from the north, south, east, west and northeast regions).

■ The tenure of the community members shall be **three years.**

● **Representatives from 10 central departments.**

■ The council will have joint secretary-level members from the **Ministries of Health, Home, Minority Affairs, Education, Rural Development, Labour and Law.**

■ In addition, there will be a member from the **Department of Pensions (Ministry of Personnel, Public Grievances & Pensions)**, NITI **Aayog,** National Human Rights Commission and National Commission for Women.

Background

➢ **2013:** The government set up an expert committee to study the problems of transgenders and recommend solutions.

➢ **2014:** In National Legal Services Authority v. Union of India case, the Supreme Court of India declared **transgender people to be a 'third gender'.**

○ It also affirmed that the fundamental rights granted under the Constitution of India will be equally applicable to transgender people, and gave **them the right to self-identification of their gender as male, female or third-gender**.

➢ **2014:** A private member Bill, the Rights of Transgendered Persons, was introduced in the Rajya Sabha.

○ The bill looked at a range of entitlements of such persons, providing specifically for them in health, education sectors, skill development and employment opportunities, and protection from abuse and torture.

○ However, this Bill got lapsed.

➢ **2016:** The Government introduced its own Bill in the Lok Sabha and it was referred to a Standing Committee.

➢ **2019:** The Parliament passed the Transgender Persons (Protection of Rights) Bill, 2019.

➢ **2020:** Government establishes the National Council for Transgender Persons.

Rotation of Panchayat Seats Between Men and Women

Why in News

The Haryana government is planning to bring a Bill to provide **50:50 reservation** in Panchayati Raj Institutions **(PRIs)** for men and women candidates, and rotate the seats between male and female representatives after each term.

Key Points

➢ Men and women will be able to contest panchayat polls under the **odd-even formula.** This will be implemented for sarpanches and members of village wards, block samitis and zila parishads.

➢ **Benefit:** This will ensure equal opportunities for men and women, and women from all constituencies will have fair share in terms of reservation.

➢ **Limitations**: Policy of reservation for only one term and rotation of reserved seats and posts of chairperson can **hinder the consolidation of leadership qualities** among women representatives as it takes time for them to learn the skills of handling and negotiating various conflicting interests within the panchayat.

○ To deal with this issue, some states like Kerala, Himachal Pradesh, Odisha and Karnataka have made provisions for **two term reservation of seats at PRIs**.

➢ Haryana previously enacted **Haryana Panchayati Raj (Amendment) Act, 2015** laying down eligibility criteria to be able to contest Panchayat elections in the state.

Note:

- ❍ It included **disqualification** in case of **non-completion of minimum educational criteria** (like class X pass for general category and Class 8th for SC), **non-payment of arrears and debts** to co-operative banks or electricity bills, and **not having functional toilets** at home.
- ❍ The Supreme Court upheld this decision arguing that prescription of an educational qualification is not irrelevant for better administration. Also, the criteria of insolvency and toilets will encourage good practices among legislators.

- ➤ **Constitutional Provisions for Women Representation in PRIs:**
  - ❍ The **73rd Constitutional Amendment Act, 1992** mandates **33.3% reservation** for women in PRIs across the country.
    - The 73rd Amendment envisages the **Gram Sabha** as the foundation of the Panchayat Raj System to perform functions and powers entrusted to it by the State Legislatures.
    - This has been increased to **50% reservation** in several states like Andhra Pradesh, Chattisgarh, Gujarat, Himachal Pradesh, Bihar etc.
    - Out of the 30.41 lakh elected representatives of PRIs, 13.74 lakh (**45.2%**) are women.
  - ❍ **Article 15 (3)** to the Constitution of India empowers the State to make **special provisions for women.**
  - ❍ **Article 243D** provides that **one-third of the total number of seats and offices** of the Chairpersons in PRIs at each level shall be reserved for women to be allotted by r**otation to different constituencies in a Panchayat.**
    - Such reservations of seats and offices of the chairpersons for women are also within the reservations for SCs and STs in all three tiers of PRIs.
  - ❍ In order to bring about 50% reservation for women in Panchayats in all States, the **110th Constitution Amendment Bill** was introduced in the Lok Sabha in **2009**, but it was **not passed** despite being tabled several times.
- ➤ **Challenges Before Women in PRIs:**
  - ❍ **Patriarchy:** Many women are not allowed to contest elections and many continue to work as proxies for their male family members. Their male co-workers show **insensitivity** and may refuse to cooperate. Burden of **household responsibilities, purdah**

(veil) system and domestic violence negatively affect their functioning.
- ❍ **Inadequate Capacities:** Majority of women representatives enter into public life for the first time and do **not have enough knowledge and skill**s to handle affairs of panchayats. Training programmes conducted by government training agencies are unable to cover all elected representatives in time.
- ❍ **Violent Opposition:** Women often face **more resistance from the community** if they want to take bold steps. They are also subjected to violence from powerful elements of the society.
- ❍ **Two Child Norm:** A few States like **Odisha and Rajasthan have the two child norm** for contesting panchayat elections. In rural areas women hardly have any say in the number of children in the family and such laws restrict their entry into panchayats.
- ❍ **Caste System:** Hierarchical caste system in rural India makes it difficult for women from SC and ST communities to work independently and effectively.
- ❍ **Lack of Women at Other Levels:** Lack of women coworkers at higher administrative level also hinders the free functioning of women representatives.
- ➤ **Efforts by Government to Promote Women in PRIs**: The Ministry of Panchayati Raj (MoPR) has been making continuous efforts by launching and implementing various schemes for capacity building of women representatives in PRIs, like
  - ❍ **Rashtriya Gram Swaraj Abhiyan (RGSA):**
    - **RGSA** was launched in 2018 for developing and strengthening the capacities of Panchayati Raj Institutions (PRIs) for rural local governance to become more responsive towards **local development need**s, preparing the **participatory plans** that leverage technology, efficient and **optimum utilization of available resource**s for realizing sustainable solutions to local problems linked to **Sustainable Development Goals (SDGs).**
    - It included rewards for ensuring women participation in PRIs.
  - ❍ **Gram Panchayat Development Plan (GPDP):**
    - Some of the **key aspects of GPDP guidelines that are relevant to Women Empowerment include** proactive participation of women in budgeting, planning, implementation and monitoring of GPDP and convening Mahila Sabhas prior to the general Gram Sabhas and their inclusion in Gram Sabhas and GPDP.

Note:

○ **Panchayat Mahila Evam Yuva Shakti Abhiyan (PMEYSA):**
  ● It was implemented from the year 2007-08 till 2012-13 with the broad objective of empowerment of Elected Women & Youth Representatives of Panchayats.
○ Recently, the Ministry of Panchayati Raj has directed all the States and Union Territories to organise **Special Gram Sabhas and Mahila Sabhas (Women's Assemblies)** in all **Gram Panchayats**

Sub-Classification of Reserved Classes

Why in News

A five-judge Bench of the **Supreme Court** held that States can sub-classify the list of Scheduled Castes (SCs), Scheduled Tribes (STs), and Socially and Educationally Backward Classes (SEBCs) to provide preferential treatment to the **"weakest out of the weak".**

Key Points

➢ The decision **overruled** a previous 2005 decision in *E V Chinnaiah v State of Andhra Pradesh and Others*, also by a five-judge Bench, that **state governments had no power to create sub-categories of SCs** for the purpose of reservation.

➢ Since a Bench of equal strength cannot overrule a previous decision, the court also **referred it to a 7-judge Bench**.

➢ The judgment was on the constitutional validity of Section 4(5) of the **Punjab Scheduled Caste and Backward Classes (Reservation in Services) Act, 2006**.
  ○ The act allows 50% of the reserved Scheduled Castes seats in the State to be allotted to Balmikis and Mazhabi Sikhs.

➢ **Judgment:**
  ○ **Reservation system** has created **inequalities within the reserved castes** itself. There is a **"caste struggle"** within the reserved class as benefits of reservation are being usurped by a few.
  ○ Reservation **was not contemplated for all the time** by the framers of the Constitution.
    ● **Article 334** of the Constitution had originally required the reservation of **elected seats** to cease in **1960**, but it was extended by various amendments. The latest one being the 104th Amendment extending it to 2030.

○ If sub-classification is denied, it would **defeat the right to equality** by treating unequal as equal.
  ● **Article 14** guarantees everyone **"equality before law"** and " **equal protection of law**" . Equal protection of the laws means that amongst equals the law should be equal and treating unequals as equals will be violation of law.

○ Among the SCs, there are some that remain grossly under-represented despite reservation in comparison to other SCs. This **inequality within the Scheduled Castes** is underlined in several reports, and special quotas have been framed to address it.
  ● **Justice Ramachandra Raju Commission, 1997** recommended sub-dividing the SCs into four groups and apportioning reservations separately for each. It also recommended that **Creamy layer of Scheduled Castes be excluded** from receiving any reservation benefits in public appointments and admission to educational institutions.
  ● In Andhra Pradesh, Punjab, Tamil Nadu and Bihar, **special quotas** were introduced for the **most vulnerable Dalits**. In 2007, Bihar set up the **Mahadalit Commission** to identify the castes within SCs that were left behind. In Tamil Nadu, a 3% quota within the SC quota is accorded to the **Arundhatiyar caste.**

○ **States have the competence** to grant reservation benefits to SCs and STs in terms of Articles 15(4) and 16(4), and Articles 341(1) and 342(1).
  ● **Article 16 (4)** provides that the State can make any provision for the reservation of **appointments or posts and in matters of promotion** in favour of any backward class of citizens who, in the opinion of the state, are not adequately represented in the services under the State.
  ● **Article 15(4)** empowers the state to **create special arrangements** for promoting the interests and welfare of socially and educationally backward classes of the society such as SC and STs.
  ● As per the Articles **341(1) and 342(1)**, the President of India, after consultation with the Governor, may specify, the castes, races, tribes or parts of groups within castes or races, which shall be deemed to be Scheduled Castes and Scheduled tribes.

Note:

Background

➢ In the *Indra Sawhney v. Union Of India 1992* case, the Supreme Court held that it would be **perfectly legal for the state to categorise backward classes as backward and more backward.**

   ❍ It also upheld the concept of 'creamy layer' within OBC to those who have overcome their backwardness. However, the concept of creamy layer in SCs and STs has been in debate since then.

➢ In the *E V Chinnaiah v State of Andhra Pradesh and Others 2005* case, the Supreme Court ruled that only the **President has the power to notify the inclusion or exclusion of a caste** as a Scheduled Caste, and states cannot tinker with the list.

➢ In the *M.Nagaraj & Others vs Union Of India, 2006* case, the Supreme Court said that the government **had to collect quantifiable data** showing backwardness of the class and inadequacy of representation of that class in public employment.

➢ However, in **Jarnail Singh vs Lachhmi Narain Gupta, 2018** Supreme Court held that the government **need not collect quantifiable data** to demonstrate backwardness of public employees belonging to the SC/STs to provide reservations for them in **promotions**.

   ❍ It also observed that certain caste groups or subgroups have **"come out of untouchability or backwardness** by virtue of belonging to the creamy layer".

➢ Recently, the Supreme Court has ruled that reservation in the matter of promotions in public posts is **not a fundamental right**, and a state cannot be compelled to offer the quota if it chooses not to.

Prime Minister's Awards for Excellence in PubAd 2020

Why in News

Recently, 702 Districts have registered and participated in the **Prime Minister's Awards for Excellence in Public Administration for 2020.**

➢ The Award will be conferred by the Prime Minister on **Rashtriya Ekta Diwas** -31st October 2020.

Key Points

➢ **PM's Awards for Excellence in Public Administration:**

   ❍ It was **constituted in 2006** by the Government of India **to acknowledge, recognize and reward the extraordinary and innovative work** done by districts and organizations of the Central and State Governments.

   ❍ The **award consists of a trophy, scroll and an incentive of Rs. 10 lakh** to the awarded district or organization to be utilized for implementation of project/ programme or bridging resource gaps in any area of public welfare.

➢ **Restructuring:**

   ❍ The award programme was **restructured in 2014** for recognizing the performance of District Collectors i**n Priority Programs, Innovations and Aspirational Districts.**

   ❍ It has been **restructured again in 2020**, to recognize the contribution of civil servants in strengthening of:

      ● **Inclusive Development** through Credit Flow to the **Priority Sector.**

      ● **Promoting people's movements** through **Swachh Bharat Mission** in the District.

      ● **Improving Service Delivery** and R**edressal of Public Grievances.**

   ❍ The restructuring also seeks to **recognize the efforts of District level officials in the Namami Gange Program** and to recognize the **performance of District Collectors towards economic development of the District.**

      ● The award for the **Aspirational Districts Program** has been revamped to reward the District having the best overall progress under the Scheme following 2 years of implementation.

   ❍ Through restructuring, the scope of the awards has been expanded t**o identify areas of overall outcome-oriented performance** in the districts across sectors.

Protests Against Farm Ordinances

Why in News

Recently, the **Punjab Assembly passed a resolution** and rejected the **Centre's recent farm ordinances** and the **proposed Electricity (Amendment) Bill 2020.**

Key Points

- ➤ **Reforms Brought by Centre:**
  - ○ **The ordinances include:**
    - Farmers' Produce Trade and Commerce (Promotion and Facilitation) Ordinance, 2020
    - Farmers (Empowerment and Protection) Agreement on Price Assurance and Farm Services Ordinance, 2020
    - Essential Commodities (Amendment) Ordinance, 2020.
  - ○ These ordinances were a part of the **third tranche of the economic package** announced under **Atmanirbhar Bharat Abhiyan** to counter **Covid-19 pandemic.**
  - ○ They are expected to **allow free movement of agricultural produce between states** and let the **farmers decide to whom they want to sell their crops.**
  - ○ The **Electricity (Amendment) Bill 2020 centralizes the power sector** through establishment of **Electricity Contract Enforcement Authority.**
    - Recognition of franchisees and sub- licensees under the Bill might open the **sector to private players.**
- ➤ **Criticism:**
  - ○ **Source of Income for State Governments:** One of the Ordinance prohibits state governments from levying any market fee, cess or levy on farmers, traders, and electronic trading platforms for any trade under the Ordinance. State governments would lose incomes from Agricultural Produce Market Committee-controlled trading.
  - ○ **Usurping State Powers:** These ordinances are targeted at usurping state powers, and overriding state laws and market committees.
- ➤ **Punjab's Stand:**
  - ○ Entry 14 of List II of the Constitution comprises **agriculture as the subject of the states**. Therefore the three ordinances passed by the Centre are against the Constitution of India.
  - ○ These ordinances are a direct encroachment upon the functions of the states and against the spirit of **cooperative federalism** enshrined in the Constitution.
    - **Cooperative federalism** is defined as administrative cooperation between the Centre & states and among states.

National Mission for Financial Inclusion

Why in News

Pradhan Mantri Jan-Dhan Yojana (PMJDY) - National Mission for Financial Inclusion, completed its six years of successful implementation.

Key Points

- ➤ While launching the programme on 28th August 2014, the Prime Minister had described the occasion as a festival to celebrate the liberation of the poor from a vicious cycle of poverty.
- ➤ **Pradhan Mantri Jan Dhan Yojna (PMJDY)** is a key initiative towards commitment of financial inclusion**.**
  - ○ **Financial inclusion** may be defined as the process of ensuring access to financial services and timely and adequate credit where needed by vulnerable groups such as weaker sections and low-income groups at an affordable cost.
    - Financial Inclusion is a national priority of the Government as it is an enabler for inclusive growth.
    - It is important as it provides an avenue to the poor for bringing their savings into the formal financial system, an avenue to remit money to their families in villages besides taking them out of the **clutches of the usurious money lenders.**
- ➤ **Achievements under PMJDY:**
  - ○ **PMJDY Accounts:**
    - Total Number of PMJDY Accounts (as on 19th August 2020): 40.35 Crore; Rural PMJDY accounts: 63.6%, Women PMJDY accounts: 55.2%
    - During the first year of the scheme 17.90 crore PMJDY accounts were opened.
  - ○ **Operative PMJDY Accounts**:
    - As per extant RBI guidelines, a PMJDY account is treated as inoperative if there are no customer induced transactions in the account for **over a period of two years.**
    - Out of total 40.35 crore PMJDY accounts, 34.81 crore (86.3%) are operative.
  - ○ **Deposits under PMJDY accounts:**
    - Total deposit balances under PMJDY Accounts stand at Rs. 1.31 lakh crore.

Note:

- Deposits have increased about 5.7 times with increase in accounts 2.3 times between 2015 to 2020.

➢ **Rupay Card issued to PMJDY account holders:**
  ❍ Total RuPay cards issued to PMJDY account holders: 29.75 Crore

➢ **Jan Dhan Darshak App:**
  ❍ A mobile application was launched to provide a citizen centric platform for locating banking touchpoints such as bank branches, ATMs, Bank Mitras, Post Offices, etc.
  ❍ This app is also being used for identifying villages which are not served by banking touchpoints within 5 km. The efforts have resulted in a significant decrease in the number of such villages.

➢ Pradhan Mantri Garib Kalyan Package (PMGKP) for PMJDY women beneficiaries:
  ❍ An amount of Rs. 500/- per month for three months (April'20 to June'20), was credited to the accounts of women account holders under Pradhan Mantri Jan Dhan Yojana (PMJDY).

➢ **Towards ensuring smooth DBT transactions:**
  ❍ As informed by banks, about 8 crore PMJDY account holders receive **Direct Benefit Transfer (DBT)** from the Government under various schemes.

➢ **Important approach adopted in PMJDY based on past experience:**
  ❍ **Extension of PMJDY with New features:** From 28th August 2018, the Government extended PMJDY with some modifications:
    - **Focus shifted from 'Every Household' to Every Unbanked Adult'**
    - **RuPay Card Insurance:** Free accidental insurance cover on RuPay cards increased from Rs. 1 lakh to Rs. 2 lakh for PMJDY accounts opened after 28.8.2018.
    - **Enhancement in overdraft facilities:** OD limit doubled from Rs 5,000/- to Rs 10,000/-; OD upto Rs 2,000/- (without conditions). Increase in upper age limit for OD from 60 to 65 years.

➢ **Features**
  ❍ The scheme was launched based upon the following 6 pillars:
    - **Universal access to banking services** – Branch and Banking Correspondents

- **Basic savings bank accounts with overdraft facility** of Rs. 10,000/- to every household.
- **Financial Literacy Program**– Promoting savings, use of ATMs, getting ready for credit, availing insurance and pensions, using basic mobile phones for banking.
- **Creation of Credit Guarantee Fund** – To provide banks some guarantee against defaults.
- **Insurance** – Accident cover up to Rs. 1,00,000 and life cover of Rs. 30,000 on account opened between 15 Aug 2014 to 31 January 2015.
- **Pension Scheme for Unorganized sector.**

Foundation Day of AREAS

Why in News

On the 6th Foundation Day (27th August 2020) of the **Association of Renewable Energy Agencies of States (AREAS),** the government has launched a website and telephone directory for AREAS.

Key Points

➢ **Agenda Behind AREAS: State Nodal Agencies (SNAs) for Renewable Energy (RE) interact** and learn from each other's experiences and also share their best practices and knowledge regarding technologies and schemes/programmes.

➢ **Members:** The **Union Minister for New & Renewable Energy (NRE)** is the **Patron** of the Association and **Secretary, MNRE** is the ex-officio **President** of the Association. All **SNAs** are members of the Association.

➢ **Formation:** It got registered under **Society Registration Act, 1860** on 27th August 2014.

Renewable Energy Initiatives in India

➢ The **Ministry of New and Renewable Energy (MNRE)** is the nodal Ministry of the Government of India for all matters relating to new and renewable energy.
  ❍ **New and Renewable Energy sources include solar energy**, geothermal energy, wind power, hydropower, biomass, etc.

➢ In September **2019**, at the **United Nations Climate Action Summit**, India announced increasing the **renewable energy target to 450 GW by 2030** from 175 GW by 2022.

Note:

➢ In its **Intended Nationally Determined Contribution (INDC),** India has pledged to increase the **share of non-fossil fuels-based electricity to 40% by 2030.**

➢ The **Green Energy Corridor Project** aims at synchronizing electricity produced from renewable sources, such as solar and wind, with conventional power stations in the grid.

➢ Recently**, Indian Railways** has contacted solar power developers to meet the net zero carbon emission target by 2030.

➢ **Sector Specific Initiatives:**
  ○ **Solar Energy:**
    ● **International Solar Alliance**
    ● **One Sun, One World, One Grid (OSOWOG)**
    ● **National Solar Mission** (a part of National Action Plan on Climate Change)
    ● **Pradham Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyaan (PM KUSUM)**
    ● Atal Jyoti Yojana
    ● Suryamitra Skill Development Programme
    ● Solar Park Scheme and Grid Connected Solar Rooftop Scheme
    ● **Rewa Solar Power Plant**
  ○ **Wind Energy:**
  ○ National Wind Resource Assessment programme
  ○ **National Wind-Solar Hybrid Policy 2018**
  ○ National Institute of Wind Energy, Tamil Nadu

➢ **Waste to Energy:**
  ○ Programme on Energy from Urban, Industrial, Agricultural Wastes/Residues and Municipal Solid Waste

➢ **Bio Energy:**
  ○ Biomass power & cogeneration programme
  ○ Biogas Power Generation (Off-grid) and Thermal energy application Programme (BPGTP)

Integration of e-PPO with Digi Locker

Why in News

The **Ministry of Personnel, Public Grievances & Pensions** has decided to **integrate the electronic Pension Payment Order (e-PPO) with Digi Locker.**

➢ The decision has been taken to **enhance ease of living of central government civil pensioners.**

➢ e-PPO is generated through the **Public Finance Management System (PFMS).**

Key Points

➢ **Benefits of the Decision:**
  ○ This initiative will create a **permanent record** of pensioners' respective PPO in their Digi Locker and **eliminate the necessity of handing over a physical copy**.
  ○ Further, it will **eliminate delays** in reaching the PPO to new Pensioners

➢ **Process:** The integration facility has been created with **'*Bhavishya*' software.** Bhavishya will provide **an option** to retiring employees, to link their Digi-locker account with their "*Bhavishya*" account and obtain their e-PPO in a seamless manner.
  ○ *Bhavishya* is an **online Pension Sanction and Payment Tracking System** implemented by the Ministry of Personnel, Public Grievances & Pensions.
  ○ **Pension tracking** can be done by the individual as well as the administrative authorities for all actions preparatory to grant of pension and other retirement benefits as well as monthly pension paid after retirement.

Public Financial Management System (PFMS)

➢ The PFMS, earlier known as Central Plan Schemes Monitoring System (CPSMS), is a **web-based online software** application developed and implemented by the Office of **Controller General of Accounts (CGA)**, Ministry of Finance.

➢ PFMS was initially started during **2009** as a Central Sector Scheme of Planning Commission.

➢ The **primary objective** of PFMS is to facilitate a sound Public Financial Management System for the Government of India (GoI) by establishing an **efficient fund flow system** as well as a **payment cum accounting network**.

Notification of Rules for J&K

Why in News

The Ministry of Home Affairs (MHA) has notified **Rules of Transaction of Business for the Government of Union territory of Jammu and Kashmir (J&K).**

Key Points

- The rules have been notified under the **Section 55** of the Jammu and Kashmir Reorganization Act, 2019
  - According to Section 55 of the act "the **Lieutenant Governor (LG)** shall make rules on the advice of the Council of Ministers **for the allocation of business to the Ministers**; and for the more convenient **transaction of business with the Ministers** including the procedure to be adopted in case of a **difference of opinion** between the LG and the Council of Ministers or a Minister.
- The rules provide details of **work allocation**, **distribution of the business among the departments**, their powers, executive powers of LG etc. in J&K.
- As per the rules, there will be **39 departments** in the J&K such as school education, agriculture, higher education, horticulture, election, general administration, home, mining, power, Public Works Department, tribal affairs and transport.
- **Police, Public order, All India Services and Anti-corruption** will fall under the executive functions of the **LG**.
  - This implies that the Chief Minister or the Council of Ministers will have no say in their functioning.
- Proposals or matters which affect or are likely to affect the **peace and tranquility of the UT** or the **interest of any minority community, the Scheduled Castes, the Scheduled Tribes and the Backward Classes** shall essentially be submitted to the LG through the Chief Secretary, under intimation to the Chief Minister, **before issuing any orders.**
- Any matter, which is likely to bring the government of the Union Territory into a **controversy with the Centre or a State government**, shall, as soon as possible, be brought to the notice of the LG and the Chief Minister through the Chief Secretary.
- All important **communications received from the Centre** shall, as soon as possible, be submitted to the Chief Secretary, the Minister in charge, the Chief Minister and the LG for information.
- In case of **difference of opinion between the LG and a Minister** when no agreement could be reached even after a **month**, the **decision of the LG** shall be deemed to have been accepted by the Council of Ministers.
- **Background:**
  - The Centre on 5th August, 2019 **scrapped provisions of Article 370** through the **Constitution (Application to Jammu and Kashmir) Order, 2019.**

- A separate Bill - the **Jammu and Kashmir Reorganisation Bill 2019** - was introduced to **bifurcate the State into two separate** union territories of Jammu and Kashmir **(with legislature), and Ladakh (without legislature).**
- The move created a controversy with many civil groups demanding restoration of the special status of J&K. A petition was filed in the Supreme Court challenging the constitutional validity of the abrogation.
- Following the move**,** Pakistan released a new political map that includes all of Jammu & Kashmir, Ladakh, Sir Creek and Junagadh**.**
- China called India's step "illegal and invalid" and raised the issue at the United Nations Security Council **(UNSC)** in New York (USA).
- A **special committee** set up by the Supreme Court of India recommended restoration of 4G internet services on a trial basis in Jammu & Kashmir, which was suspended to avoid violence in the state after the abrogation of Article 370.

Draft Health Data Management Policy

Why in News

The **National Health Authority (NHA)** has released the **Draft Health Data Management Policy** of the National Digital Health Mission (NDHM) in the public domain for comments and feedback.

- **NHA** is the apex agency of the Government of India responsible for the design, roll-out, implementation and management of Ayushman Bharat and the **National Digital Health Mission (NDHM)** across the country.

Key Points

- The draft health data management policy acts as a **guidance document** to set out the **minimum standard for health data privacy protection**.
- **Purpose:** To create a **National Digital Health Ecosystem** that supports **Universal Health Coverage** in an **efficient, accessible, inclusive, affordable, timely** and **safe** manner, through provision of a wide-range of **data, information and infrastructure services** ensuring the **security, confidentiality** and **privacy** of health-related personal information.

Note:

- **Objectives:**
  - Provide **adequate guidance** and to **set out a framework for the secure processing** of personal and sensitive personal data of individuals.
  - **Safeguard** digital personal health data like medical conditions, reproductive outcomes, prescriptions and diagnosis etc.
  - Create a system of **digital personal and medical health records** which is easily **accessible** to individuals and health service providers and is purely **voluntary** in nature, based on the **consent** of individuals, and in compliance with **international standards.**
  - Increase **awareness** of the importance of data privacy.
  - Ensure **national portability** in the provision of health services.
  - Establish appropriate institutional mechanisms for **auditing** of the National Digital Health Ecosystem.
  - Leverage the **information systems existing** in the Indian health sector.
- **Background:**
  - The **Ministry of Health and Family Welfare** released the **National Health Policy, 2017** which envisaged creation of a digital health technology eco-system aiming at developing an integrated health information system.
  - A committee headed by former **Unique Identification Authority of India (UIDAI)** chairman released the **National Digital Health Blueprint (NDHB)** in **July 2019.**
  - NDHB recognised the need to establish a specialised organisation, called the **National Digital Health Mission (NDHM)**, to facilitate the evolution of the National Digital Health Ecosystem.
  - The Prime Minister announced the launch of NDH on **74th Independence Day i.e. 15th August, 2020.**

India's Longest River Ropeway in Assam

Why in News

The **Assam government** has inaugurated a **1.8-km ropeway across the Brahmaputra river,** and described it as India's longest river ropeway.

BRAHMAPUTRA & OTHER ROPEWAYS

1.8 km	**2.5 km**	**4 km**	**2 km**
Between Guwahati city and North Guwahati town, across the river Brahmaputra.	In Gulmarg, J&K. One of the world's highest (4,390 m) cable-based lift services.	In Auli in Uttarakhand, said to be the longest in the country (not a river ropeway)	In Darjeeling, West Bengal, one of the oldest ropeway services in India, started 1968).

Key Points

- **About the Ropeway:**
  - Built at the cost of **Rs. 56 crore**, it extends from **Central to Northern Guwahati.** It takes **eight minutes** to traverse the entire length of the ropeway.
  - It passes over the mid-river **Peacock Island** that houses **Umananda**, a medieval Shiva temple.
  - According to the government, this is **one of the most advanced & longest river crossing Aerial Tramway systems in India.**
    - Aerial tramways are particularly well-suited in extreme terrain since the towers can be erected at larger intervals.
- **Need:**
  - **Thousands of people commute every day** between the capital city of Guwahati and the town of North Guwahati, where IIT Guwahati is located.
    - Other travel options between the two banks are by ferry (30 minutes or more, depending on current and season) or by road through a bridge that usually takes over an hour in the traffic.
- **Other Benefits:**
  - Apart from substantially reducing travel time, the ropeway will provide a **breathtaking view of the Brahmaputra river** and **promote tourism** in the State.
  - Further, the ropeway is considered as a **convenient and non-polluting means of transport,** as well as a **source of environmentally friendly tourism.**
    - It is ecologically sustainable as it is run by electric power protecting the beauty of the area, while simultaneously providing passengers with a comfortable and speedy means of travel.

Atal Bimit Vyakti Kalyan Yojana: ESIC

Why in News

The **Employees' State Insurance Corporation (ESIC)**

has **extended the Atal Bimit Vyakti Kalyan Yojana by one year** to **30th June 2021.**

➢ Further, the ESIC has **relaxed eligibility criteria and enhanced the payment of the unemployment benefit** under the Yojana (applicable from 24th March - 31st December 2020).

Relief to the workers affected due to Covid-19 Pandemic

Relaxation in eligibility criteria and enhancement in the payment of relief under **Atal Bimit Vyakti Kalyan Yojana of ESIC**

➢ Payment of relief has been enhanced to 50% of average of wages from earlier 25% of average wages payable upto maximum 90 days of unemployment.

➢ Instead of the relief becoming payable 90 days after unemployment, it shall become due for payment after 30 days.

➢ Insured Person can submit the online claim directly to ESIC Branch Office instead of the claim being forwarded by the last employer and the payment shall be made directly in the bank account of IP.

➢ The Insured Person should have been in insurable employment for a minimum period of 2 years immediately before his/her unemployment and should have contributed for not less than 78 days in the contribution period immediately preceding to unemployment and minimum 78 days in one of the remaining 3 contribution periods in 02 years prior to unemployment.

Key Points

➢ **About the Yojana:**

○ Atal Bimit Vyakti Kalyan Yojana was introduced w.e.f. 1st July 2018.

○ Under it, **unemployment benefit is paid to the workers covered under the Employees' State Insurance (ESI) scheme.**

○ Unemployment benefit is paid in the **form of cash compensation upto 90 days, once in a lifetime**, to be **claimed after three months (90 days)** in one or more spells for being rendered **unemployed.**

● The employee should have completed two years of insurable employment and has contributed not less than 78 days in each of the four consecutive contribution periods immediately preceding to the claim of the relief.

○ The benefit **does not exceed 25% of the average earning per day.**

➢ **About the ESI Act, 1948:**

○ It **applies** to all factories and notified establishments located in implemented areas **employing 10 or more persons** and is applicable on employees drawing wages up to **Rs. 21,000 per month (Rs. 25,000** for **persons with disabilities).**

○ In July 2019, the **contribution rate** under the ESI Act was reduced from 6.5% to 4% (employers' contribution from 4.75% to 3.25% and employees' contribution from 1.75% to 0.75%).

● In a financial year, there are **two contribution periods** each of six months duration.

● **Employees** in receipt of a daily average wage upto **Rs.137** are **exempted** from payment of contribution.

○ The Employees' State Insurance Scheme is **administered by a corporate body called the ESI Corporation.**

● The Corporation is the **highest policy making and decision taking authority** under the ESI Act and oversees the functioning of the Scheme.

● The **Union Minister of Labour and Employment** is its **Chairman.**

○ It covers about 3.49 crore of family units of workers and provides cash benefits and medical facilities to 13.56 crore beneficiaries.

Identification of Minorities

Why in News

Recently, the **Supreme Court** has sought the Central government's response on a **Public Interest Litigation (PIL)** challenging provisions of the **National Commission for Minority Education Institution (NCMEI) Act, 2004.**

Key Points

➢ **Petitioner's Argument:**

○ The NCMEI Act **identifies minorities at the national level** and not at the State level, thereby **depriving deserving minorities** in the states of **their Constitutional rights.**

○ The Centre's notification (under section 2(f) of NCMEI Act) which identifies Muslims, Christians, Sikhs, Buddhists, Parsis and Jains as minorities at the national level is against the judgement of *TMA Pai Foundation case*, **2002.**

● These minorities at national level have a significant population in many states. E.g.

● **Muslims are in majority** in Lakshadweep (96.58%) & Kashmir (96%).

● **Christians are in majority** in Nagaland (88.10%), Mizoram (87.16%) and Meghalaya (74.59%).

● The Supreme Court in the *TMA Pai Foundation case* dispelled doubts about the definition of

Note:

minorities and recognised the right of non-minorities to establish educational institutions, without impairing the fundamental rights of neither.

○ Rational basis of declaring certain religions as minority by the Central government as they have less population in the States is contravened when benefits of schemes for minorities are acquired by those religious minorities in states where they are in majority and those religious communities who are actually minorities are not given equal status.

● Those who follow **Hinduism, Judaism and Bahaism** are minorities in regions like Ladakh, Mizoram, Lakshadweep, Kashmir, Nagaland, Meghalaya, Arunachal Pradesh, Punjab and Manipur.

● However, they cannot establish & administer educational institutions of their choice because of non-identification of 'minority' at the State level, thus jeopardising their basic rights guaranteed under **Article 29 and 30.**

➢ **Changes Demanded:**

○ Direct and declare that Section 2(f) of the NCMEI Act 2004 is arbitrary, irrational and violative of the Constitution and hence void.

○ Direct the Centre to lay down guidelines for identification of minority at State level.

Constitutional and Legal Provisions Related to Minorities

➢ The term **"Minority"** is **not defined in the Indian Constitution**. However, the Constitution recognises **religious and linguistic minorities**.

➢ **Article 29:** It provides that any section of the citizens residing in any part of India having a distinct language, script or culture of its own, shall have the right to conserve the same.

○ It grants protection to **both religious minorities as well as linguistic minorities**.

○ However, the Supreme Court held that the scope of this article is not necessarily restricted to minorities only, as use of the word **'section of citizens'** in the Article includes **minorities as well as the majority.**

➢ **Article 30:** All minorities shall have the right to establish and administer educational institutions of their choice.

○ The protection under **Article 30 is confined only to minorities** (religious or linguistic) and does not extend to any section of citizens (as under Article 29).

➢ **Article 350-B:** Originally, the Constitution of India did not make any provision with respect to the **Special Officer for Linguistic Minorities.** However, the **7th Constitutional Amendment Act, 1956** inserted Article 350-B in the Constitution.

○ It provides for a Special Officer for Linguistic Minorities appointed by the President of India.

○ It would be the duty of the Special Officer to investigate all matters relating to the safeguards provided for linguistic minorities under the Constitution.

➢ National Commission for Minority Education Institution (NCMEI) Act, 2004:

○ It gives the **minority status to the educational institutions on the basis of six religious communities notified** by the government under the NCMEI Act, 2004 - Muslims, Christians, Sikhs, Buddhists, Zoroastrians (Parsis) and Jains.

Contempt of Court

Why in News

Recently, the Supreme Court (SC) has found civil rights lawyer Prashant Bhushan guilty of criminal contempt of court.

➢ The lawyer had made a defamatory tweet against the Chief Justice of India.

Key Points

➢ **Defamation of SC:** The tweet **scandalised** the Supreme Court as an institution.

○ Being the epitome of the Indian judiciary, an attack on the SC can lead to ordinary litigants and judges of High Courts across the country **losing the confidence in the apex court**.

➢ **Not to Vindicate Judges:** However, the court acknowledged that its contempt powers could be used **only to uphold the majesty of law** and not to vindicate an individual judge against whom a defamatory remark is made.

Note:

- ➢ **Suo Moto Cognizance:** The **prior consent** of the **Attorney General (AG) of India** is not required to *suo motu* initiate the inherent contempt powers of the SC.
  - ❍ The *suo motu* contempt powers of the top court are drawn from **Article 129 of the Constitution.**
  - ❍ The **Contempt of Court Act of 1971** cannot limit this power of the court. The statute **only provides the procedure in which such contempt is to be initiated.**

Contempt of Court Act of 1971

- ➢ According to the Act, contempt of court is of **two types:**
  - ❍ **Civil contempt:** It is the **willful disobedience** to any judgment, decree, direction, order, writ or other processes of a court or willful breach of an undertaking given to a court.
  - ❍ **Criminal contempt:** It is the publication of any matter or the doing of any other act which **scandalises** or lowers the authority of any court, or **interferes** with the due course of any judicial proceeding, or **obstructs** the administration of justice in any other manner.
- ➢ **Amendment:** The Act was amended in 2006 to include **"truth and good faith"** as a defence.
  - ❍ It was added that the court may impose punishments only if the act of the other person **substantially** interferes, or tends to interfere with the due course of justice.
- ➢ **Criticism:**
  - ❍ It is criticized to **be reminiscent of British colonialism** in India as the contempt laws have been abolished from the UK itself.
  - ❍ Demands have been raised to **restrict contempt** to only "willful disobedience" of directions/judgments of the court and remove "scandalizing the court".
  - ❍ It may lead to **judicial overreach.**
  - ❍ There are **high numbers of contempt cases pending** in various High Courts and the SC, which delays the justice administration by an already **overburdened judiciary.**
- ➢ **Review by the Law Commission:** The Law Commission reviewed the 1971 Act in 2018 and noted that:
  - ❍ The powers of the contempt of the SC and High Courts are independent of the 1971 Act and the

contempt powers of the higher courts are derived from the Articles 129 and 215 of the Constitution itself.
  - ● **Article 129:** The **Supreme Court shall be a court of record** and shall have all the powers of such a court including the **power to punish for contempt of itself.**
  - ● **Article 215:** Every High Court shall be a court of record and shall have all the powers of such a court including the power to punish for contempt of itself.
  - ❍ Therefore, deletion of the offence from the Act **will not impact the inherent constitutional powers of the superior courts** to punish anyone for its contempt.
  - ❍ India continues to have a high number of criminal contempt cases, while the last offence of scandalising the court in the UK was in 1931 which may be a reason for its abolition there.
  - ❍ The Commission observed that abolishing the offence in India would **leave a legislative gap.**
  - ❍ It empowers the High Courts to act if someone is in contempt of the subordinate courts. Diluting the Act would **expose the subordinate judiciary to acts of contempt of court.**
  - ❍ The 1971 Act **contains adequate safeguards** to exclude instances which may not amount to criminal contempt as defined under Section 2(c) of the 1971 Act.
  - ❍ The statute has stood the **test of judicial scrutiny for about five decades.**

SC Decision on UGC Guidelines on Conduct of Examinations

Why in News

The Supreme Court ruled that the **states are empowered** under the **Disaster Management Act, 2005 (DM Act)** to override **University Grants Commission (UGC) exam guidelines** in order to protect human lives amid the **Covid-19** pandemic.

- ➢ However, it held that universities and other institutions of higher education **will have to conduct the final-year exams** and **cannot promote students** on the basis of internal assessment or other criteria.

Key Points

➢ **Background:** The UGC had directed that final year examinations of Universities must be conducted by September-end in online or offline mode. However, the **Maharashtra and Delhi governments employed the DM Act, 2005** to cancel the examinations due to Covid-19 to which **the UGC objected.**

➢ **Judgement:**
○ In case of a disaster, the priority of all authorities under the **DM Act** is to immediately combat the disaster and contain it to **save human life.** Saving the life of human beings is given paramount importance.
○ However, the powers of the States under the DM Act **do not extend to promoting students** on the sole basis of their internal assessment without taking exams.
○ In future, if any State found it impossible to conduct the exams by the deadline given by UGC and wanted to postpone them, it could **apply to the UGC**, which would **consider the request and decide** at the earliest.
○ Also, the States and universities **cannot dismiss UGC guidelines** as being merely advisory. They were necessary for the determination of standards in institutions of higher education and were **obligatory for universities.**
    ● The **UGC (Minimum Standards of Instruction for the Grant of the Master's Degree through Formal Education) Regulations, 2003,** categorically requires universities to adopt the guidelines.
○ The court also rejected the argument that compelling attendance by holding physical examination is a **violation of the 'Right to Life' under Article 21.**
    ● They were based on the recommendations of the **R.C. Kuhad Expert Committee**. They provided three modes of examination - pen and paper, online and blended (both physical and online).
    ● The R.C. Kuhad Expert Committee recommended that **exams should be held for Terminal Semester Students** while the **Intermediate Semester Students should be graded based on internal assessmen**t of the present and previous semester. It also suggested the **constitution of a Covid-19 cell in every university.**

A Single Voters' List

Why in News

The Prime Minister's Office held a meeting with representatives of the Election Commission and the Law Ministry to discuss the possibility of having **a common electoral roll** for **elections to the panchayat, municipality, state assembly and the Lok Sabha.**

Key Points

➢ **Types of Electoral Rolls in India:**
○ Each State Election Commissions(SEC) is governed by a separate state Act.
    ● Some state laws allow the SEC to borrow and use the Election Commission of India's voter's rolls for the local body elections.
    ● In others, the state commission uses the EC's voters list as the basis for the preparation and revision of rolls for municipality and panchayat elections.
    ● Few states have their own electoral rolls and do not adopt EC's roll for local body polls like those of Uttar Pradesh, Uttarakhand, Odisha, Assam, Madhya Pradesh, Kerala, Odisha, Assam, Arunachal Pradesh, Nagaland and the Union Territory of Jammu and Kashmir.
    ● The distinction stems from the fact that the supervision and conduct of elections in our country are entrusted with **two constitutional authorities** — the **Election Commission (EC) of India** and the **State Election Commissions (SECs).**
        ■ **Election Commission (EC) of India:** It was set up in 1950, the EC is charged with the responsibility of conducting polls to:
            (a) the offices of the **President and Vice-President of India,**
            (b) to **Parliament, the state assemblies and the legislative councils**.
        ■ **State Election Commissions (SECs):** The SECs, on the other hand, **supervise municipal and panchayat elections.** They are free to prepare their own electoral rolls for local body elections, and this exercise does not have to be coordinated with the EC.
➢ **Reason for Demand for Common Electoral Roll:**

Note:

drishti

❍ A **common electoral roll and simultaneous elections** as a way to save an enormous amount of effort and expenditure.

● It is argued that the preparation of a separate voters list causes duplication of the effort and the expenditure.

➢ **Earlier Recommendations:**

❍ The **Law Commission** recommended it in its **255th report in 2015 for a single electoral roll.**

❍ The EC too adopted a similar stance in 1999 and 2004.

● The EC pointed out that it **adds to the confusion among voters,** since they may find their names present in one roll, but absent in another.

➢ **Implementation Process:**

❍ A **Constitutional Amendment** to Articles 243K and 243ZA is required.

● **Articles 243K and 243ZA** deal with elections to panchayats and municipalities in the states. These give the power of superintendence, direction and control of preparation of electoral rolls and the conduct of these elections to the **State Election Commission (SEC).**

● The SECs are free to prepare their own electoral rolls for local body elections, and this exercise does not have to be coordinated with the EC.

● The amendment would **make it mandatory to have a single electoral roll** for all elections in the country.

❍ **Persuading the state governments** to tweak their respective laws and adopt the Election Commission's (EC) voters list for municipal and panchayat polls.

Scholarship Schemes in India

Why in News

Recently, a multi-crore scam has been reported in the **post-matric scholarship scheme for Scheduled Castes (SC)** in Punjab.

➢ The Central government is planning to bring a **single national scholarship scheme** by merging all the current scholarship schemes.

Key Points

➢ **Post Matric Scholarship for SCs:**

❍ It is a **Centrally Sponsored Scheme** launched in 2006. It is **implemented** through State government and Union Territory administration.

❍ The Scheme provides **financial assistance to the Scheduled Caste (SC) students** studying at post matriculation or post-secondary stage to enable them to complete their education.

❍ The scholarship is **available for studies in India only** and is paid to the students whose guardians' income is below Rs. 2,50,000 per annum.

➢ **Single National Scholarship Scheme:**

❍ The Central government is **contemplating** setting up a **single national scholarship scheme** called **PM Young Achievers Scholarship Award Scheme for Vibrant India (PM-YASASVI)** for meritorious students which will absorb all the existing scholarship schemes.

❍ **Beneficiary:** Students in the Other Backward Class (OBC), SC, Denotified, Nomadic and semi-Nomadic Tribe (DNT) and Economically Backward Caste (EBC) categories will be able to avail the national scholarship.

❍ **Implementing Agency:** The **Ministry of Social Justice and Empowerment** has been tasked to implement the Scheme **by conducting a merit test.**

❍ **Benefits of Single National Scholarship Scheme:**

● It will **increase the reach of information** about the govt scholarships.

● **Boost** the importance of maintaining a **basic curriculum and teaching standards** across the country.

● Help improve the **quality and implementation of scholarships.**

❍ **Issues Involved:**

● In case a student misses the deadline of scholarship, he will **not get a second chance** to apply for other scholarships.

● The national-level scholarship exam would become an **added burden on students.**

■ Having a separate exam for identifying merit is redundant as already students are appearing for board examinations and entrance examinations.

● If the existing pre-matric and post-matric scholarship schemes are done away with, it could end up **hampering the education of students**.

Namath Basai: Kerala

The Kerala State government is carrying out a unique programme called **"Namath Basai"** of **teaching tribal children in their mother tongue.**

Key Points

➢ The programme is being implemented by the **Samagra Shiksha Kerala (SSK).**
  ❍ SSK is an overarching programme for the school education sector extending from pre-school to class 12.
  ❍ It aims at improving school effectiveness measured in terms of equal opportunities for schooling and equitable learning outcomes.

➢ It has succeeded in retaining **hundreds of tribal children in their online classes** using their mother tongue as language of instruction.
  ❍ Teaching in the tribal language has to a good extent stopped students from dropping out, which is quite usual in hamlets

➢ It offers pre-recorded classes through a YouTube channel in three tribal languages in **Attappady** valley in Palakkad District Kerala.
  ❍ These languages belong to the **Irula, Muduka and Kurumba tribes.**

➢ It is being introduced in the tribal belts of Wayanad and Idukki as well. Classes are offered in the Oorali, Muthuvan and Paniya languages in Idukki.
  ❍ Wayanad has the highest number of tribals in Kerala followed by Idukki.

Kurumba Tribe

➢ Popularly known as Mala Pulayans, Hill Pulayans and Pamba Pulayans.

➢ **Traditional occupation:** Foraging and shifting cultivation
  ❍ Collect forest products like honey, wax, soapnut, turmeric, ginger and wild cardamoms.
  ❍ Art of **body tattooing**.
  ❍ Skilled in manufacture of baskets and mats

➢ **Religion**: **Animism** (belief in spirituality of objects, places, and creatures) and **Totemism** (Worship of any species of plants or animals thought to possess supernatural powers).

Irula or Irular Tribe

➢ **Occupation:** Agriculturists
  ❍ Grow Paddy, Ragi, dhal, plantains, chillies and turmeric

➢ **Religion:** The majority worship **Vishnu** under the name of Rangaswami and Siva without differentiation.
  ❍ Some practice **animism** and worship the tiger.

Mudugars or Muduka

➢ Have social divisions at kal(clan) level.
➢ **Traditional Occupation:** Food gatherers and hunters.
➢ **Religion: Hinduism**
  ❍ Worship Shiva.

Dhanwantri Rath: Ayurveda Health Services

Why in News

A Memorandum of Understanding (MoU) has been signed between the **All India Institute of Ayurveda (AIIA)** and **Delhi Police** for extending the **Ayurveda Preventive and Promotive health services** in the residential colonies of **Delhi Police.**

➢ These services are to be provided through a **mobile unit named 'Dhanwantari Rath'** and **Police Wellness Centres** and are to be catered by AIIA, supported by the Ministry of AYUSH.

Key Points

➢ Dhanwantari Rath and Police Wellness Centres would be **outreach OPD (OutPatient Department) services of AIIA a**nd aim to benefit the Families of Delhi Police through Ayurveda preventive health care services.

➢ **Dhanwantari Rath** – a mobile unit of Ayurveda health care services would consist of a team of Doctors who would be visiting Delhi Police colonies regularly.
  ❍ These Ayurveda health care services are **expected to reduce the incidence/prevalence of various diseases** and also **reduce the number of referrals to hospitals** thereby **reducing cost to the healthcare system** as well **as patients.**

➢ Earlier, **AYURAKSHA,** a **joint venture of AIIA and Delhi Police** aimed for **maintaining the health of frontline Covid warriors like Delhi police personnel** through Ayurveda immunity boosting measures was launched.

Note:

All India Institute of Ayurveda

➢ It is an **autonomous organisation under the Ministry of AYUSH.**

➢ It has been conceived as an **apex institute for Ayurveda**.

➢ It aims at **bringing a synergy between traditional wisdom of Ayurveda and modern tools and technology.**

➢ The institute offers postgraduate and doctoral courses in various disciplines of Ayurveda and focuses on fundamental research of Ayurveda, drug development, standardization, quality control, safety evaluation and scientific validation of Ayurvedic medicine.

➢ It is located in **New Delhi.**

  ○ With the latest MoU, Ayurveda Preventive and Promotive health care will be extended to the families of Delhi Police personnel.

Swadeshi Microprocessor Challenge

Why in News

The **Ministry of Electronics and Information Technology (MeitY)** has announced 'Swadeshi Microprocessor Challenge- Innovate Solutions for #Aatmanirbhar Bharat' to provide further impetus to the **Start-up ecosystem, innovation and research** in the country.

➢ MeitY has taken various initiatives and measures to improve innovation-led ecosystem with a **Technology Incubation and Development of Entrepreneurs (TIDE) scheme**, **Centre of Excellences in IoT/ FinTech space**, etc.

Key Points

➢ **About the Challenge:**

  ○ **'Swadeshi Microprocessor Challenge- Innovate Solutions for #Aatmanirbhar Bharat'** seeks to invite **innovators, startups and students to use microprocessors,** developed by IIT Madras and C-DAC, to **generate various technology products.**

  ● **IIT Madras** and **Center for Development of Advance Computing (C-DAC)** have developed two microprocessors named **SHAKTI (32 bit)** and **VEGA (64 bit)** respectively using **Open Source Architecture** under the aegis of **Microprocessor Development Programme** of MeitY.

Microprocessor Development Program

➢ It was approved in **August 2017** with **Rs. 289.21** crore earmarked for the programme over four years.

➢ **C-DAC, Indian Institute of Technology (IIT) Madras** and **IIT Bombay** were roped in for implementation of the project.

  ○ **C-DAC is the premier R&D organisation of the MeitY** for carrying out R&D in IT, Electronics and associated areas.

➢ The **development of an indigenous microprocessor is necessary** to meet domestic needs and shield the country from potential future embargoes on transfer of critical technology.

  ○ A microprocessor is an **Integrated Circuit (IC)** that contains a few millions of transistors (semiconductor-based electronic devices) fused on a semiconductor chip. It is just a few millimetres in dimension and is used in almost every electronic device—from the microwave and washing machine in homes to advanced supercomputers of a space station.

➢ The MDP was expected to lead to a **reduction in overall cost of production, maintenance and upgradation of electronic products and systems** in India, and cut foreign exchange outgo.

➢ Under the program, not only industry-grade microprocessors have been designed from the scratch but also the 'compute ecosystem' around them has been evolved as a step towards meeting India's future requirements. **SHAKTI** and **VEGA** are two microprocessors developed under the programme.

Open Source Architecture

➢ Open-source architecture is a concept that combines the advances in design and technologies with the practices and ideas from open-source projects to help reframe an architectural design as a collective and collaborative endeavor.

➢ Some of its **features** are as follow:

  ○ The solutions provided are not restrictive. Future modifications or add-ons to the architecture are possible for the best interest of the end user.

  ○ It helps in the integration of the widest range of technologies and components.

➢ The **proprietary design or technique** is one that is owned by a company. It also implies that the company has not divulged specifications that would allow other companies to duplicate the product.

Note:

○ The Challenge demands contestants to not only **tinker with the Swadeshi Processor IPs** and facilitate them with **innovating the economical solutions for societal needs** but also make available the entire **home-grown ecosystem around Swadeshi Processors** to develop the complex designs for catering to both global and domestic requirements in near future.

○ The Challenge spread over **10 months**, kick-started with the **registration process through MyGov Portal** on **18th Aug 2020** and will culminate in **June 2021**

➢ **Significance:**

○ Under the **Aatmanibhar Bharat Abhiyan**, there is a **growing need for Swadeshi Compute Hardware**, that shall be part of every smart device deployed in different domains, including **electronics** for public utility services such as surveillance, transportation, environmental condition monitoring, to commodity appliances like smart fans/ locks/ washing machines.

○ In addition, with **growing penetration of smart electronics in strategic areas including space, defence and nuclear energy**, the need for Swadeshi Compute Hardware is crucial.

○ The **dependence on external vendors,** quick enhancements to suit the ever-growing requirements, and most-importantly **security**, further drives self-reliance in the hardware domain.

■■■

Note:

Economic Scenario

Highlights

- RBI's Annual Report: 2020
- AIIB Loan for MUTP-3
- Issues Related to Minimum Wage
- Partial Credit Guarantee Scheme 2.0
- Jobs Data: CMIE
- Organic Farming in India
- Credit Guarantee for NBFC-MFIs

- Super Apps in India
- Export Preparedness Index 2020: NITI Aayog
- Assessment of Economic Impact of Covid-19: DSGE Model
- Economic Measures Suggested by McKinsey
- Agri Profits and Farmers' Income
- Increased Investments through P-notes
- Shortcomings of Indian Chemical Industry: TIFAC

RBI's Annual Report: 2020

Why in News

Recently, the **Reserve Bank of India (RBI)** has released its annual report for 2019-2020.

Key Points

- **Financial Health of Banks:**
  - **Moratoriums on loan instalments, deferment of interest payments and restructuring** may have implications for the financial health of banks, unless they are closely monitored and judiciously used.
    - These regulatory initiatives were taken by RBI **to reduce the economic impact of Covid-19 pandemic**. These measures have averted a big spike in **Non Performing Assets (NPAs)** till now.
  - RBI in its **July 2020 Financial Stability Report** had warned that the NPAs of all Scheduled Commercial Banks (SCBs) may increase from 8.5% in March 2020 to 12.5% by March 2021. In the severe pandemic situation, the NPAs may also worsen to as high as 14.7%.
- **Risk Aversion by Banks:**
  - **Indian banks need to shed high risk aversion** which is impeding the credit growth to productive sectors.
    - **Banks have become extremely careful while giving fresh loans** to borrowers **due to the fear that loans could turn bad in future**.

- Bank **credit growth has slowed significantly** in 2020 despite the RBI's efforts to infuse a significant amount of liquidity into the banking system.
  - Since March 2020, the RBI has infused around Rs. 8-9 lakh crore through various schemes into the banking system including multiple rounds of long-term **repo operations**.
  - The RBI also cut the **repo rate** or the key lending rate by a total 115 basis points since March 2020.
- **Bank Fraud:**
  - Frauds reported by banks of Rs.1,00,000 and above value **have more than doubled in FY 2019-20.** The number of such frauds have increased by 28% in volume.
    - While there were 6,799 frauds involving Rs. 71,543 crore as of March 2019, the number of frauds jumped to 8,707 involving a whopping Rs 1,85,644 crore.
  - **Majority of these frauds are in loan portfolios** of banks, both in terms of number and value. The **public sector banks accounted for most of these frauds (80%).**
  - However the average lag in detection of frauds remains long.
    - Weak implementation of **Early Warning Signals (EWS)** by banks, non-cooperation of borrowers during forensic audits, inconclusive audit reports and lack of decision making in joint lenders' meetings account for delay in detection of frauds.
- **Slow Economic Recovery:**

Note:

- The economic **contraction triggered by pandemic** will take longer time to regain the pre-Covid momentum, **as the shock to consumption is severe.**
  - **The discretionary elements** in **private consumption has significantly reduced**, particularly in transport services, hospitality, recreation and cultural activities.
    - The **discretionary spending** includes spending on vacation and entertainment.
  - **Urban consumption demand has suffered significant loss,** passenger vehicle sales and supply of consumer durables in the first quarter of 2020-21 have dropped to 1/5th and 1/3rd, respectively, of their level a year ago. Air passenger traffic has also ground to a halt.
  - Citing the data of **e-way bills** for the month of July 2020, RBI said that the **consumer confidence fell to an all time low**, because of pessimism relating to the general economic situation, employment, inflation and income.
    - **e-way bills** are an indicator of domestic trading activity.
  - However, **the rural demand fared better**, tractor sales picked up by 38.5% in July 2020, spurred by the robust pace of kharif sowing. There was also an increase in motorcycle sales in July.
  - The pandemic has also exposed **new kinds of inequalities** e.g white collar employees can work from home while essential workers have to work on site, exposed to the risk of getting infected.
    - In some areas of work such as hospitality, hotels and restaurants, airlines and tourism, employment losses are more severe than in other areas.
  - The **sharp cut in corporate tax rate** announced by the government in 2019 did not help in restarting the investment cycle as was intended. Instead it has been used by companies to reduce debt and build up cash balances.
- **Inflation:**
  - **Headline inflation** may remain elevated in the second quarter of 2020-21 but may moderate during the second half of 2020- 21.
    - Retail inflation was at 6.93% in July, above the upper tolerance limit of 6%.

Suggestions Made by RBI

- **Targeted public investment** funded by **asset monetisation** and **privatisation of major ports** is a viable way to revive the economy.
- **Goods and Services Tax (GST) Council** type of apex authorities can be set up in respect of land, labour and power to drive structural reforms and speedier implementation of infra projects.
- **Recapitalisation of public sector banks**, this assumes significance as the minimum capital requirements, which are calibrated on the basis of historical loss events, may no longer suffice to absorb post-pandemic losses.

AIIB Loan for MUTP-3

Why In News

The **Government of India,** the Government of Maharashtra, Mumbai Railway Vikas Corporation and the **Asian Infrastructure Investment Bank (AIIB)** have signed a loan agreement for a **USD 500 million** for **Mumbai Urban Transport Project-III.**

Key Points

- **Mumbai Urban Transport Project-III (MUTP-3):** It is a project supervised and implemented by the **Mumbai Metropolitan Region Development Authority** to enhance the network capacity, service quality and safety of Mumbai's suburban railway system. The **deadline** for completion of MUTP-3 is **2022.**
- **Major Objectives:**
  - Improve traffic and transportation situation in Mumbai Metropolitan Region**.**
  - Institutional development and strengthening.
- **Expected Benefits:**
  - The Project is expected to **increase network capacity** in the region and thus will improve mobility.
  - There will be a **reduction in journey time and fatal accident**s of commuters.
    - There will be direct safety benefits to passengers and the public through the introduction of **trespass control measures**.
    - It is estimated that among primary beneficiaries of the project, **22% are female passengers who will benefit from improved safety and quality of service**.

Note:

Asian Infrastructure Investment Bank

➤ The Asian Infrastructure Investment Bank (AIIB) is a **multilateral development bank** with a mission to improve social and economic outcomes in Asia. It was established in **December 2015.**

➤ It is headquartered in **Beijing (China)** and began its operations in January 2016.

➤ It has **103 members including India.**

　○ India is among the founding members of AIIB.

➤ China is the largest shareholder in AIIB with a 26.6% voting power, followed by India with a 7.62% voting power.

AIIB Support to India

➤ India is the largest beneficiary of AIIB financing for infrastructure projects. The AIIB has approved some major projects in India. These are:

➤ Bangalore Metro Rail Project (USD 335 million).

➤ Gujarat Rural Roads (MMGSY) Project (USD 329 million).

➤ India Infrastructure Fund.

➤ Andhra Pradesh 24×7 – Power For All Project.

➤ USD 750 Million for Covid-19 support for India.

　● It will also help in **reducing carbon emissions** by shifting passengers away from higher-carbon road transport towards efficient and convenient rail-based mobility.

➤ **Need:**

　○ The **population's explosive growth** represents the core driver behind Mumbai's urban expansion. It is compelling to prioritize sound urban and infrastructure planning.

　　● With a population of 22.8 million (2011), Mumbai Metropolitan Region (MMR) is the most populous metropolitan region in India and is expected to reach 29.3 million by 2031 and 32.1 million by 2041.

　○ Around **86%** of Mumbai commuters rely on public transport.

　　● The Mumbai suburban railway network **carries three-quarters of all motorized travel** (8 million passengers per day).

　　● User experience remains compromised by the **low amenity of carriages**, **substandard stations** and **station access**, and serious **safety concerns**.

　　■ Between **2002-2012,** there were more on average, **9.9 fatalities per day** on the Mumbai suburban railway network.

　　■ A key reason for accidents and deaths is **trespassing and overcrowding** of both stations and train cars.

Issues Related to Minimum Wage

Why in News

Recently, the **International Labour Organization (ILO)** has termed the **current minimum wage fixing criteria** in the **Draft Code on Wages (Central) Rules, 2020** as ambiguous.

➤ On 7th July 2020, the Central government published the **Draft Code on Wages (Central) Rules, 2020** in the Official Gazette and placed it in the public domain inviting objections and suggestions.

Key Points

➤ **Fixation of the Minimum Wage:**

　○ **Number of Consumption Units:** The Wage Code provides for the fixation of the minimum wage keeping in view the standard working class family, **the equivalent of 3 adult consumption units.**

　　● The assumption that a standard working class family consists just of 3 adult consumption units is questionable.

　　● This number has been arrived at by counting the male worker as 1 consumption unit, his wife as 0.8 consumption unit and two children as 0.6 consumption units each.

　　● Such an assumption about the food requirements of the members of a family seems flawed. Furthermore, families with dependent elders are not considered.

　○ **Expenses:** The minimum wage under the code has been fixed by considering the estimate of expenses incurred towards food, clothing, shelter, fuel, electricity, children's education and medical requirements. It also includes expenses on contingencies and miscellaneous items.

　　● However, the criteria prescribed for the fixation of the minimum wage **have not taken into consideration all the expenses incurred to**

meet the minimum needs of a family in the present day.

- For instance, the expenses incurred towards transport, mobile phone bills and internet connection bills have not been considered at all.

○ **Clothing:** The clothing requirement at 66 metres of cloth per year per standard working class family is unrealistically low.

- It also does not take into consideration the additional clothing requirements of people in cold regions.

○ **Housing:** The housing rent expenditure will be factored at 10% of the expenditure on food and clothing, is unrealistic considering that the rent towards decent housing for a family in and around metropolitan areas will amount to at least Rs. 5000 per month.

○ **Basis of Fixation of Wages:** The fixation of minimum wages under the draft code has been kept on a day basis.

- However, trade union leaders have opined that fixation of wages on a day basis could disadvantage workers when compared to the fixation of minimum wages on a monthly basis.

➢ **Fixation of Floor Wage:**

○ The Code on Wages, 2020 introduces the concept of a **floor wage**, which empowers the central government to fix floor wages taking into account the minimum living standards of workers.

- The **floor wage is a baseline wage** below which minimum wages cannot be fixed by state governments.

- The Wage Code permits the fixation of **different floor level wages for different geographical areas.** However, this has **given rise to the fear of flight of capital** from areas where the wage is higher to areas where the wage is lower.

- There is also fear that it will lead to **fixation of low wages by state governments** in a bid to attract greater investments thus depressing the minimum wage.

○ Also, the wage rules do not outline the exact criteria and methods for fixation of floor wage rates by the Central Government.

➢ **Suggestions:**

○ **Stating the exact methods of fixation of floor wage.** This would enable the setting of the floor

wage at an appropriate level after the wage code comes into effect.

○ **Fixing the periodicity of revision of the minimum wage.** Of the two components of the minimum wage — basic wage and dearness allowance — the paper suggests revision of the basic wage every five years, a part which is missing in the proposed minimum wage rules.

Partial Credit Guarantee Scheme 2.0

Why in News

The government has **extended the scope of the Partial Credit Guarantee Scheme (PCGS) 2.0** to provide greater flexibility to state-owned banks in purchasing bonds and Commercial Papers (CPs) of **Non-Banking Financial Companies (NBFCs).**

Key Points

➢ **Background:**

○ The **PCGS** was announced in July **2019**, allowing **public sector banks** to **purchase** high-rated **(BBB+ or above) pooled assets from** financially sound **NBFCs** and **Housing Finance Companies (HFCs).**

- A **pool of assets** is basically a **securitisation of loan portfolio** i.e. conversion of a loan into a marketable security, typically for the purpose of raising cash by selling them to other investors.

- These are sold by NBFCs/HFCs to banks in return for an advance payment. **NBFCs/HFCs get the much needed money** and **banks get the interest paying assets.**

- **Credit ratings** is an analysis of the credit risk associated with a financial instrument or a financial entity. These range from AAA to C and D.

○ As a part of the **Aatmanirbhar** initiative, the **scheme was extended in May 2020 (PCGS 2.0)** to cover **primary market issuance of bonds/CPs by NBFCs**, **HFCs** and **Micro Finance Institutions (MFIs)** with **low credit ratings.**

- The Centre provided **20% first loss sovereign guarantee to public sector banks** for purchase of bonds/CPs, resulting in liquidity infusion of **Rs. 45,000 crore** into the system.

- The scheme covered papers with ratings of **AA and below**, including **unrated papers**, aimed at providing access to fresh liquidity support to non-bank lenders.
- ➤ **Latest Extension:**
  - ❍ The Scheme has been **extended for three months**, giving public sector banks time till **19th November 2020** to build their portfolios of bonds and CPs from non-banking financial institutions.
  - ❍ Further, the government has **allowed banks to invest upto 50% of total investments under the Scheme in AA and AA- rated bonds**.
    - This decision was taken as the earlier limit for such investments at 25% was almost met.
- ➤ **Criticism:**
  - ❍ The latest announcement is a step towards **increased funding for bigger NBFCs which have higher ratings**, while the actual objective was to provide greater funding to **small and medium NBFCs.**
  - ❍ **Less than 100 NBFCs have been covered under the scheme** as a majority of small and medium NBFCs turn to **term loans**, instead of raising funds via bonds or CPs.

Jobs Data: CMIE

Why in News

Recently, the **Centre for Monitoring Indian Economy (CMIE)** has released data related to jobs gained or lost during the **Covid-19 lockdown** period (April-July 2020).

- ➤ CMIE is a leading **business information company**. It was established in 1976, primarily as an independent think tank.
- ➤ CMIE produces **economic and business databases** and develops specialised analytical tools to deliver these to its customers for decision making and for research. It **analyses the data to decipher trends in the economy.**

Key Points

- ➤ **Salaried Jobs:**
  - ❍ They suffered a **total loss estimated to be 18.9 million** during April-July 2020.
    - 17.7 million salaried jobs were lost in April. After gaining 3.9 million jobs in June, 5 million jobs were again lost in July.

- ❍ They **offer better terms of employment** and better wages, and have a **higher share in urban parts** of the country than rural parts.
- ❍ They are **more resilient to economic shocks** and not lost easily, however, once lost they are far more difficult to retrieve.
- ❍ Only 21% of all employment in India is in the form of a salaried employment.
- ❍ Loss of urban salaried jobs is likely to have a particular **debilitating impact on the economy,** besides causing **immediate hardship to middle-class households.**
  - Since the lockdown was announced, several companies across sectors have taken to job cuts, along with salary reductions and leave without pay.
- ➤ **Informal and Non-Salaried Jobs:**
  - ❍ This category of job has **shown improvement** during the April-July 2020 increasing to 325.6 million in July 2020 from 317.6 million in 2019, an increase of 2.5%.
    - This is because of the **opening of the country in a phased manner**.
  - ❍ This category of employment **accounted for about 32% of the total employment but it suffered 75%** of the hit in April 2020.
    - Out of total 121.5 million jobs lost in April 2020, 91.2 million of the jobs were lost from this category.
    - Small traders, hawkers and daily wage labourers were the worst hit by the lockdown.
- ➤ **Farm Jobs:**
  - ❍ The jobs lost in the non-farm sectors have resulted in **people moving towards farm employment.** The farm sector gained 14.9 million jobs in the April-July 2020 period.

JOB LOSS PATTERN IN APRIL-JULY 2020

	In million
Salaried Emp	-18.9
Daily wagers	-6.8
Business	-0.1
Farmers	14.9
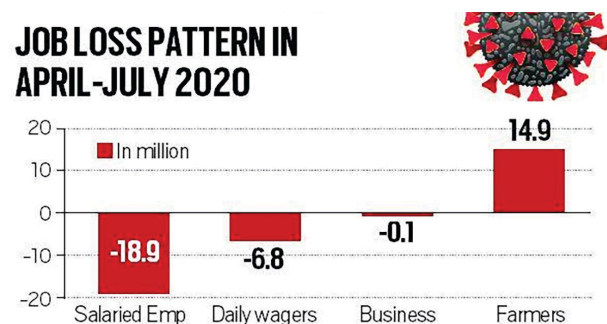
Source: Centre for Monitoring Indian Economy Pvt Ltd, 18 Aug 2020

Note:

drishti

○ In 2019, 42.39% of the workforce in India was employed in agriculture.

Organic Farming in India

Why in News

India ranks 1ˢᵗ in number of organic farmers and 9ᵗʰ in terms of area under organic farming.

Key Points

➢ **Indian Scenario Regarding Organic Farming:**

○ **Sikkim** became the first State in the **world** to become **fully organic in 2016.**

○ **North East India** has traditionally been organic and the consumption of chemicals is far less than the rest of the country.

○ Similarly the tribal and island territories have been traditionally practicing organic farming.

○ The major organic exports from India have been **flax seeds, sesame, soybean, tea, medicinal plants, rice and pulses.**

○ There was an increase of nearly 50% in organic exports in 2018-19, touching Rs. 5151 crore.

○ Commencement of exports from Assam, Mizoram, Manipur and Nagaland to UK, USA, Eswatini and Italy have proved the potential by increasing volumes and expanding to new destinations as the demand for **health foods** increases.

➢ **Government Initiatives to Promote Organic Farming:**

○ **Mission Organic Value Chain Development for North East Region (MOVCD):**

● Mission Organic Value Chain Development for North East Region (MOVCD-NER) is a **Central Sector Scheme**, a sub-mission under **National Mission for Sustainable Agriculture (NMSA)**

● It was launched by the Ministry of Agriculture and Farmers' Welfare in 2015 for implementation in the states of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura.

● The scheme aims to develop certified organic production in a value chain mode to link growers with consumers and to support the development of the entire value chain.

○ **Paramparagat Krishi Vikas Yojana (PKVY):**

● Paramparagat Krishi Vikas Yojana, launched in 2015 is an elaborated component of **Soil Health Management (SHM)** of major project **National Mission of Sustainable Agriculture (NMSA).**

● Under PKVY, organic farming is promoted through adoption of organic villages by cluster approach and Participatory Guarantee System (PGS) certification:

○ **Certification Schemes**

● **Food Safety and Standards Authority of India (FSSAI)** is the food regulator in the country and is also responsible for regulating organic food in the domestic market and imports.

● **Participatory Guarantee System (PGS):** PGS is a process of **certifying organic products**, which ensures that their production takes place in accordance with laid-down quality standards. **PGS Green** is given to chemical free produce under transition to 'organic' which takes 3 years. It is mainly for **domestic purposes.**

● **National Program for Organic Production (NPOP)**: NPOP grants organic farming certification through a process of third party certification for **export purposes.**

● The **Soil Health Card Scheme** has led to a **decline of 8-10% in the use of chemical fertilizers** and also raised productivity by 5-6%.

○ **Agri-export Policy 2018:**

● **Focus on clusters** and **marketing and promotion of "Produce of India"** have positively impacted the organic farming in India

○ PM Formalization of Micro Food Processing Enterprises (PM FME):

● The **Ministry of Food Processing Industries (MoFPI)** launched the **PM FME scheme** as a part of **'Atmanirbhar Bharat Abhiyan'.**

● It aims to bring in new technology, apart from affordable credit to help small entrepreneurs penetrate new markets.

○ **Zero Budget Natural Farming**

● **Zero budget natural farming** is a method of chemical-free agriculture drawing from traditional Indian practices.

Note:

Credit Guarantee for NBFC-MFIs

Why in News

Recently, the **National Bank for Agriculture and Rural Development (NABARD)** has introduced **Partial Credit Guarantee** Programme for **Non-Banking Financial Company (NBFC)** - **Micro Finance Institutions (MFIs).**

➤ The programme aims to ensure unhindered flow of credit in rural areas hit by the **Covid-19 pandemic.**

Key Points

➤ **Programme:**
   ○ Under the programme, NABARD will provide **partial guarantee on pooled loans** extended to small and mid-sized MFIs.
      ● This has come in the backdrop of most **MFIs being excluded from the moratorium benefits from banks,** creating a dip in collections, resulting in widening asset-liability mismatch, credit downgrades and spike in cost of fresh funding.
   ○ NABARD will facilitate Rs. 2,500 crore funding in the initial phase and will further increase the funding.
   ○ The program is expected to cover over 1 million households across 28 states and 650 districts.

➤ **Implementation:**
   ○ NABARD has signed agreements with **Vivriti Capital and Ujjivan Small Finance Bank** to roll out the initiative.
      ● Vivriti Capital is a non-banking financial corporation.

➤ **Benefits:**
   ○ The partially guaranteed loan facility will c**atalyse much-needed financing to millions of households, agricultural and business markets** to sustain in the post Covid-19 environment.
      ● MFIs operate in rural hinterlands and serve farmers, traders, rural businesses and households.

➤ **Pooled Loan Issuance (PLI):**
   ○ Under a PLI structure, a bank or an NBFC (Principal Lender), provides loans to identified Microfinance Institutions/other NBFCs/corporates (Borrowers).
   ○ Each of these loans are made as per terms agreed upon between the Principal Lender and the Borrowers in keeping with the Principal Lenders underwriting and credit evaluation practices.
   ○ The loans offered are pooled together and credit enhanced by way of a common partial guarantee offered by identified guarantors to the structure.
   ○ The **PLI structure provides the lending bank adequate comfort through the guarantor's partial credit protection**, it also **reduces cost of capital** as the rating of the loans get increased and **helps lenders meet priority sector goals.**

Non-Banking Financial Company-Micro Finance Institution

➤ The NBFC-MFI is a **non-deposit taking financial company**.

➤ Conditions to qualify as NBFC-MFI:
   ○ Minimum Net Owned Funds (NOF) of Rs. 5 crore.
   ○ At least 85% of its Net Assets in the nature of **Qualifying Assets.**
      ● The Qualifying Assets are those assets which have a substantial period of time to be ready for its intended use or sale.

➤ The difference between an NBFC-MFI and other NBFC is that while other NBFCs can operate at a very high level but MFIs cater to only the smaller level of social strata, with need of smaller amounts as loans.

Super Apps in India

Why in News

The Tata Group is planning to get into aggregating its consumer offerings in an **all-in-one super app.**

Key Points

➤ A super app is an **omnichannel digital platform**, i.e. a platform developed by a company offering various services and products under one umbrella.
   ○ **For example,** China's WeChat, which started out as a messaging app, expanded into payments, cabs, shopping, food ordering, cab services to become a super app.

➤ A physical world analogy of a super app would be a **mall**, which allows retail space to various brands and shops across businesses and verticals.

➤ **There are two concepts of super app emergence:**

Note:

○ The concept of super app first emerged in China and southeast Asia where internet companies like WeChat, Go-Jek and Grab evolved their apps into versatile feature apps.

- **Customer Traffic to Services:** These companies used the opportunity of customer traffic on their platforms that originally came as social media by offering additional services leading to increased revenue realisations.

○ A different approach is followed in the **west Asia region.**

- **Services to Target Customer:** The traditional business conglomerates with a large portfolio with a presence in shopping malls, grocery and entertainment are building digital assets. These businesses observe high customer footfall and high repeat purchase frequency.

Advantages of Super Apps

➢ **For Businesses:**

○ **Higher Revenue:** It ensures increased revenue realization due to consolidation of services at one place.

○ **Control over Data:** It provides to companies a large amount of consumer data, which can be harnessed to learn more about user behaviour.

○ **Market Access:** It enables domestic and foreign retailers to easily get access to the market.

➢ **For Consumers:**

○ **Convenience:** It shortens the way to the desired action.

○ **Diverse Services**: It offers a variety of services.

○ **Easy Experience:** It allows for a uniform and individual user experience.

○ **Less Load on Phone:** It saves phone memory compared to what it is in the case of multiple apps.

Concerns about Super Apps

➢ **Monopoly:** The very concept of a conglomerate trying to keep a customer within its own ecosystem for most services they might require increases the possibility of a monopoly.

○ The data collected by the master app **could then be used to train machines in artificial intelligenc**e which can be used either way.

➢ **Risk to Financial Systems:** Super Apps are disinter-mediating banks from their customers, which is not healthy for a financial system unless formal regulations are not in place concerning such apps.

➢ **Issue with Device:** A large chunk of India's smartphone market belongs to lower-end smartphones, most of which come with a space crunch.

➢ **Language Issue:** India is a multi-linguistic nation. So a super app must use vernacular language to increase consumer reach.

➢ **Privacy:** Concerns of privacy in cases where a super app has onboarded third-party service providers.

Indian Experience

➢ Main reasons why Indian companies are looking at building super apps are:

○ Relatively large base of the population is smartphones first instead of desktop.

- India's smartphone base is estimated around 450 million (2020) and it is expected to reach 820 million in the next two years.

○ The ecosystem of apps customised to local needs has not yet evolved.

Export Preparedness Index 2020: NITI Aayog

Why in News

Recently, the **NITI Aayog in partnership with the Institute of Competitiveness** released the **Export Preparedness Index (EPI)** report 2020.

Key Points

➢ **EPI 2020:**

○ **Aim:** To **identify challenges and opportunities**, enhance the effectiveness of government policies and **encourage a facilitative regulatory framework for export**.

○ **Ranking Parameter:** The index ranked states on **four key pillars:**

- **Policy:** A comprehensive trade policy providing a strategic direction for exports and imports.

- **Business Ecosystem:** An efficient business ecosystem helping states attract investments and create an enabling infrastructure for individuals to initiate start-ups.

- **Export Ecosystem:** Assess the business environment, which is specific to exports.

Note:

- **Export Performance:** This is the **only output-based parameter** and examines the reach of export footprints of States and Union Territories.

Index	Logistics Performance Index (LPI)	Trading Across Borders –Doing Business	Trade Facilitation Index	Enabling Trade Index
Publishing Agency	World Bank	World Bank	OECD	World Economic Forum
What it measures	Logistics Friendliness of countries	Time and cost of the logistical process of countries	Assessment of trade facilitation policies, areas for action and impact of reforms	Factors, policies and services that facilitate trade across borders and to destination.
India's Rank	44/160 (2018)	68/190 (2019)	1.52/2 (2018)	102/136 (As per 2016)
Best performing states/ countries	Top 5: Germany, Sweden, Belgium, Austria, Japan	Austria, Belgium, Denmark, France, Hungary, Italy, Netherlands, Spain all tied for Rank 1	1.86/2- Netherlands	Top 5: Singapore, Netherlands, Hong Kong, Luxembourg, Sweden

- **Sub-pillars:** The index also took into consideration **11 sub-pillars** – export promotion policy; institutional framework; business environment; infrastructure; transport connectivity; access to finance; export infrastructure; trade support; R&D infrastructure; export diversification; and growth orientation.
- **Features:** The EPI is a data-driven effort to identify the core areas crucial for export promotion at the **sub-national level (states and union territories).**
- **Benefit:** The Index would be a **helpful guide for the state governments** to **benchmark regional performance with respect to export promotion** and thus deliver key policy insights on how to improve and enhance the exports.

- ➢ **Performance:**
  - **Gujarat has topped the overall EPI 2020** followed by Maharashtra and Tamil Nadu.
  - **Among the landlocked states, Rajasthan** has topped the index, followed by Telangana and Haryana.
  - **Among the Himalayan states, Uttarakhand** topped the index, followed by Tripura and Himachal Pradesh.
  - Across **Union Territories, Delhi** has performed the best.

- ➢ **India's Exports:**
  - India's **merchandise exports have witnessed growth** from USD 275.9 billion in 2016-17 to USD 331.0 billion in 2019-20.
    - However, the Covid-19 crisis gave a major blow to the current fiscal. Consequently, India's exports shrank by 60% in April 2020.
  - This consistent positive growth has been a result of **key measures** adopted by the government

LEADING THE PACK
Export preparedness score

State	Score
Gujarat	75.2
Maharashtra	75.1
Tamil Nadu	64.9
Rajasthan	62.6
Odisha	58.2

Source: NITI Aayog

post-2016 for the promotion of merchandise exports.

- A **mid-term review of the Foreign Trade Policy 2015-20** was conducted in 2017 to assess the policy interventions required to boost the export levels.
- A **new Logistics Division** was established in the Department of Commerce to organize the integrated development of the **logistics sector**.
- **Trade Infrastructure for Export Scheme** (TIES) was launched in 2017 to address the existing export infrastructure gaps.
- **Agriculture Export Policy** was rolled out to target export contribution at a micro-level.
- **Transport and Marketing Assistance** (TMA) **scheme** was also introduced for the export of specified agriculture products to mitigate the disadvantage of the higher cost of transportation.

- ➢ **Challenges:** The export promotion in India faces **three fundamental challenges:**
  - Intra- and inter-**regional disparities** in export infrastructure.
  - **Poor trade support and growth orientation** among states.
  - **Poor research & development infrastructure** to promote complex and unique exports.

Assessment of Economic Impact of Covid-19: DSGE Model

Why in News

The **Reserve Bank of India (RBI)** is using **Dynamic Stochastic General Equilibrium (DSGE) model** to provide a **tentative and proximate assessment** of the likely impact

Note:

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of **Covid-19** and the **subsequent lockdown** on the Indian economy.

Key Points

➢ **DSGE Model:**
  ○ DSGE modelling is a method in **macroeconomics** that attempts to explain economic phenomena, such as economic growth and business cycles, and the effects of economic policy, through **econometric models** based on applied **general equilibrium theory** and economic principles.
    ● **Econometrics** is the application of statistical methods to economic data in order to give empirical content to economic relationships.
    ● **General Equilibrium Theory** is a macroeconomic theory that explains how supply and demand in an economy with many markets interact dynamically and eventually culminate in an equilibrium of prices.
  ○ RBI has considered three main economic agents, viz., **households, firms and the government.**
    ● Because of lockdown, households have to stay at home and therefore, reduced labour supply to firms and consumption and income fall due to non-availability of non-essential items.

➢ **Possible Scenarios under the DSGE Model:**
  ○ **First scenario i.e lockdown I** which impacts the supply side of the economy by decreasing the labour supply and its productivity.
  ○ **Second scenario i.e lockdown II**, which additionally considers the increase in marginal cost i.e. the additional cost incurred in the production of one more unit of a good or service.
    ● Inflation is expected to decline under both the first and second scenario.
    ● Under the **first scenario production cut is less severe**, but **demand contraction is more pronounced** due to a rise in infections.
    ● In the **second scenario firms will curtail production** as profits take a hit, wages see a lower rise and the economy goes through a large contraction.
    ● However, the r**ecovery from the pandemic is faster in the lockdown scenario** on account of fewer opportunities for people-to-people interactions.

○ In both the scenarios of two lockdowns, the decline in economic activity reaches its bottom in April-June quarter of 2020-21 and recovers thereafter, with growth turning gradually positive from January-March quarter 2020-21.
○ **Third scenario** i.e the **government does not impose a lockdown,** the pandemic is more widespread and peaks in the second half of January 2021 with a very slow recovery.
  ● This will cause a persistent labour shortage and the supply shock will increase the inflation and reduce the output.

Economic Measures Suggested by McKinsey

Why in News

Recently, the **McKinsey Global Institute (MGI)** has released a report titled **'India's turning point: An economic agenda to spur growth and jobs'.**

➢ The report identifies a reform agenda that could be implemented in the next 12 to 18 months to increase productivity and create jobs.

Key Points

➢ **Data Analysis:**
  ○ **Increasing Workforce:** Given the increasing urbanisation and population trends, there will be **90 million additional workers** in search of **non-farm jobs by 2030.**
  ○ **Triple Job Creation:** To cater to that, **India will have to triple job creation to 12 million** gainful non-farm jobs per year from the 4 million achieved between 2013 to 2018.
  ○ **Required GDP Growth:** The **Gross Domestic Product (GDP),** which is set to contract by over 5% in 2020-21, needs to go up to **8-8.5% per annum** for the next decade to create the opportunities in the **post Covid-19 era.**
  ○ **Promising Sectors: Manufacturing** and the **construction** sectors offer the most opportunities for economic growth and also for higher employment.
  ○ **Risk of Stagnation:** The country risks **a decade of stagnating incomes and quality of life** if urgent steps are not taken to spur growth.

Note:

- ➢ **Measures Suggested:**
  - ○ **Global Shift: Global trends** such as **digitization** and automation, shifting supply chains, urbanization, rising incomes and demographic shifts, and a greater focus on sustainability, health, and safety can become the **hallmarks of the post pandemic economy.**
  - ○ **Higher Productivity through Privatisation: Privatisation** of 30 or so of the largest state-owned enterprises to potentially double their productivity.
    - Government also had a focus on privatisation under the **Aatmanirbhar Bharat Package**.
  - ○ **Sector Specific Focus:** Framing **sector-specific pro-growth policies** to attract investment in manufacturing, real estate, agriculture, healthcare and retail.
  - ○ **Labour Reforms:** Creation of **flexible labour markets** for industry with better benefits and safety nets for workers.
  - ○ **Improvement in Infrastructure:** India needs to **unlock supply in land markets** to reduce land costs by 20-25%, enable **efficient power distribution** to reduce commercial and industrial tariffs by 20-25%; and improve the ease and **reduce the cost of doing business.**
  - ○ **Efficient Financing: Streamlining fiscal resources** can deliver USD 2.4 trillion in investment while boosting entrepreneurship by lowering the cost of capital for enterprises by about 3.5 percentage points.
    - Measures are required to channel more household savings to capital markets, to reduce the cost of credit intermediation, and to streamline government finance.
  - ○ **Bad Bank:** Creation of a '**bad bank**' can take care of the inoperative assets.
  - ○ **Responsibility for Reforms:** A bulk **60% of the reforms** will have to be undertaken by **states** and the remaining **40% by the Centre.**

Agri Profits and Farmers' Income

Why in News

A detailed analysis of 25 key field and horticultural crops done by the **rating agency** **Crisil** has indicated that **per hectare profitability will improve 3-5% year-on-year to Rs. 10,0000** in the **Kharif** (Summer Crop) Season 2020.

- ➢ However, economists say that individual farmers are unlikely to see any hike in their own income.

Key Points

- ➢ **Profits are Expected in the Agriculture Sector:** Agriculture is one of the few bright spots in an economy ravaged by Covid-19, with good rains expected to boost production and profits, especially in the paddy crop.
  - ○ To support farmers in effectively undertaking the post-harvest rabi produce and preparatory work for kharif crops, **Rs. 30,000 crore additional emergency working capital fund through NABARD** and **Rs. 2 lakh crore of concessional credit** have been provided by the government.
  - ○ The agriculture sector showed **growth of 5.9% in the last quarter of 2019-2020.**
- ➢ **Impact on the Farmers' Income:** Some economists have opined that despite a hike in overall profits, **per capita (per farmer) income may see a dip.**
  - ○ **Reverse migration due to Covid-19** may have resulted in the number of people employed in the agriculture sector this summer rising by up to 16% over farm employment in 2019.
  - ○ As per the **data from the Centre for Monitoring Indian Economy (CMIE)**, the farm sector gained 14.9 million jobs in the April-July 2020 period.
- ➢ **Possible Reasons Behind Reduced Income of Farmers:**
  - ○ **Reverse Migration:** Because of the Covid lockdown, large numbers of people have gone back to rural areas, and apart from **MGNREGA** and agriculture, there is not any significant work.
  - ○ **Agriculture as an Employment Option:** In general, people just migrate out of farming, mostly voluntarily, in search for better paying employment. But, people who can, do migrate into farming when they lose non-farming jobs.
    - CMIE data shows that 111.3 million people declared their occupation as farming in 2019-20. By March 2020, this had increased to 117 million, shooting up to 130 million in June.
  - ○ **Demand for Labour:** Till the sowing season ends in August, there will remain demand for farm labour.
    - This means, even if there is an increase in farm profits, it will not help in reviving rural demand, as too many people are dependent on farm income this year.

Note:

○ **Rise in Covid-19 cases in Rural India**: There could be an adverse impact on harvesting and supply chains.

○ **Decrease in the Prices of the Produce:**

● Whether growth in agricultural output also implies growth in the income of farmers depends on a lot of things. Most importantly, it depends on the prices received by farmers for the produce that they sell.

● While **cereal prices** continue to show **positive inflation,** most other food groups, such as **fruits and vegetables, eggs, poultry and fish**, continue to see **prices decline.**

● Further, with **input prices also rising**, most small and marginal farmers are likely to witness a decline in incomes rather than an increase.

➢ **Steps Taken by the Government:**

○ The **three ordinances** introduced under the **Atmanirbhar Bharat scheme** in May 2020 - Farmers' Produce Trade and Commerce (Promotion and Facilitation) Ordinance, Farmers (Empowerment and Protection) Agreement on Price Assurance and Farm Services Ordinance and the Essential Commodities (Amendment) Ordinance - will give the farmers the benefit of 'my crop, my right' and help them gain higher prices for their produce.

○ Launch of **Agriculture Infrastructure Fund of Rs.1 lakh crore** by the Prime Minister for setting up cold chains, refrigerated transportation, etc. will help farmers command better prices.

● These structural reforms will go a long way in reviving India's rural ecosystem.

Increased Investments Through P-notes

Why in News

According to SEBI data, the **value of participatory note (P-note) investments** in Indian capital markets increased to **Rs. 63,288 crore till July 2020-end.**

➢ This is the **fourth consecutive monthly rise in investments through P-notes.**

Key Points

➢ **About the Investments:**

○ Of the total Rs. 63,288 crore invested through the route till July, Rs 52,356 crore was invested in equities, Rs.10,429 crore in debt, Rs. 250 crore in hybrid securities and Rs. 190 crore in the derivatives segment.

● **Derivative** is a financial instrument which derives its value from the underlying assets.

➢ **Monthly Rise:**

○ The investments through P-notes was Rs 62,138 crore at the end of June 2020.

○ Prior to that, investment level was at Rs 60,027 crore and Rs 57,100 crore at the end of May and April, respectively.

○ The **investment level had fallen to over a 15-year-low of Rs 48,006 crore at the end of March 2020.**

● The figure at the end of March 2020 was the lowest level of investment since October 2004, when the total value of P-note investments in the Indian markets stood at Rs 44,586 crore.

Participatory Notes

➢ P-notes are **Offshore Derivative Instruments (ODIs) issued by registered Foreign Portfolio Investors (FPIs) to overseas investors who wish to be a part of the Indian stock markets without registering** themselves directly.

○ P-notes have **Indian stocks as their underlying assets.**

➢ Though P-note holders have less stringent registration requirements, they have to go through a proper due diligence process of the **Securities and Exchange Board of India (SEBI).**

○ SEBI was established in 1992 in accordance with the provisions of the **SEBI Act, 1992.**

○ Its **functions** include protecting the interests of investors in securities and to promote the development of, and to regulate the securities market and for matters connected therewith or incidental thereto.

➢ **FPIs are non-residents** who invest in Indian securities like shares, government bonds, corporate bonds, etc.

○ **SEBI (Foreign Portfolio Investors) Regulations, 2019** are related to FPIs.

○ **Foreign Portfolio investment is different from the Foreign Direct investment (FDI)** as it does not give investors direct ownership of a company's assets.

- The lower figure in March came amid **significant volatility in broader markets on concerns over the** coronavirus-**triggered crisis.**

Shortcomings of Indian Chemical Industry: TIFAC

Why in News

Recently, a report by the **Technology Information Forecasting and Assessment Council** (TIFAC) has **highlighted the shortcomings of the Indian chemical industry** which prove to be barriers in competing with China.

➢ TIFAC is an **autonomous organisation and think-tank of the Department of Science and Technology** and it commissioned the report in March 2020 when the Covid-19 pandemic had started accelerating in India.

Key Points

➢ India **does not have enough technology, plants and infrastructure** to manufacture key chemicals in a cost-effective and less polluting manner.

➢ India has nearly **stopped manufacturing several key Active Pharmaceutical Ingredients** (API).
  ○ India has **given up the manufacturing of APIs** for ascorbic acid, aspartame and antibiotics like rifampicin, doxycycline, tazobactam acid and even steroids.
  ○ **Production of intermediates** such as atorvastatin, chloroquine, gabapentin, ciprofloxacin, cephalosporins, immunosuppressants has also been **stopped**.

➢ India **depends on China for 67% of chemical intermediates and API** that it needs to manufacture drugs and export.

  ○ India **also depends on the USA and Italy** for API.

➢ The chemical industry is almost entirely **dependent on China for chloroquine and hydroxychloroquine** (HCQ).
  ○ Hydroxychloroquine is an **oral drug** used in the **treatment of autoimmune diseases** like rheumatoid arthritis.
  ○ In March 2020, the **Indian Council of Medical Research** (ICMR) suggested its use to contain the spread of Covid-19 for restricted populations.

➢ Manufacturers are **unable to meet the price** at which chemicals are produced by China.
  ○ Solvent and chemicals **manufacturing costs in India are over 15% more** than in China.

➢ The **share of Indian bulk drugs and intermediates in the total pharmaceutical export mix reduced** to 20% in 2018 from 42% in 2008.

Suggestions

➢ **Need for mission mode chemical engineering** with defined targets for uninterrupted synthesis of API molecules.

➢ **Creation of mega drug manufacturing clusters** with common infrastructure in India.

➢ **Development of a technology platform for biocatalysis** for cost optimization and investing in the fermentation sector of large capacity.
  ○ **Biocatalysis** refers to the use of natural substances from biological sources (such as enzymes) to speed up (catalyze) chemical reactions.

➢ **Government encouragement for Indian companies** working in chemical segments.

■■■

International Relations

Highlights

- Proposal of Supply Chain Resilience Initiative
- Anti-Drug Working Group BRICS
- Turkey-Greece Stand-off
- Chora Museum and New Gas Field: Turkey
- Military Coup in Mali
- ASEAN-India Network of Think Tanks
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- Sri Lanka to Draft a New Constitution
- Chinese Involvement in Teesta River

Proposal of Supply Chain Resilience Initiative

Why in News

With Covid-19 and trade tensions between China and the United States are threatening supply chains, Japan has mooted the **Supply Chain Resilience Initiative (SCRI)** as **a trilateral approach** to trade, with India and Australia as the key-partners.

Key Points

➢ **Supply Chain Resilience:**
  ❍ In the context of international trade, supply chain resilience is an approach that helps a country to ensure that it has **diversified its supply risk across a clutch of supplying nations instead of being dependent on just one** or a few.
  ❍ **Importance:** In unanticipated events -whether natural, such as volcanic eruptions, tsunamis, earthquakes or even a pandemic; or manmade, such as an armed conflict in a region — that disrupt supplies from a particular country or even intentional halts to trade, could adversely impact economic activity in the destination country.

➢ **Supply Chain Resilience Initiative (SCRI):**
  ❍ The initiative aims to **reduce the dependency on a single nation (at present China).**

- SCRI is a direct response to individual companies and economies concerned about Chinese political behaviour and the disruption that could lead to the supply chain.
  ❍ The initiative, first proposed by **Japan** with India and Australia as partners, potentially see other Asian and Pacific Rim nations later.

➢ **Objectives:**
  ❍ To attract foreign direct investment to turn the Indo-Pacific into an "economic powerhouse".
  ❍ To build a mutually complementary relationship among partner countries.
  ❍ To work out a plan to build on the existential supply chain network. Japan and India, for example, have an India-Japan competitiveness partnership dealing with locating the Japanese companies in India.

➢ **Reasons for the Initiative:**
  ❍ **Covid-19 Realization:** With spread of Covid-19 globally, it has been realized that dependence over a single nation is not good for both global economy and national economies:
    - Assembly lines are heavily dependent on supplies from one country.
    - The impact on importing nations could be crippling if the source stops production for involuntary reasons, or even as a conscious measure of economic coercion.

Note:

- **USA-China Trade Tensions:** The tensions began when the United States and China both applied tariff sanctions on eachother.
- **India as an Emerging Supply Hub:** The businesses have started seeing **India as a "hub for supply chains".**

➢ **Chinese Import to India:**
- As per the Confederation of Indian Industry, China's share of imports into India in 2018 (considering the top 20 items supplied by China) stood at **14.5%.**
- Chinese supplies dominate segments of the Indian economy. Sectors that have been impacted by supply chain issues arising out of the pandemic include **pharmaceuticals, automotive parts, electronics, shipping, chemicals and textiles.**
  - In areas such as **Active Pharmaceutical Ingredients** for medicines such as paracetamol, India is fully dependent on China.
  - **In electronics**, China accounts for 45% of India's imports.

➢ **Indo-Japan Trade Relationship:**
- Japan is the **fourth-largest investor in India** with cumulative foreign direct investments touching **USD 33.5 billion** in the 2000-2020 period accounting for 7.2% of inflows in that period, according to quasi government agency India Invest.
- **Imports** from Japan into India more than **doubled** over 12 years to **USD 12.8 billion** in FY19.
- **Exports** from India to Japan stood at **USD 4.9 billion for FY19**.
- Also, India is carrying forward the sentiments of self-reliance focussing on less dependence on China which is one of the reasons behind SCRI.
- Japan has included India under the SCRI initiative despite India having pulled out of the Regional Comprehensive Economic Partnership.
- Further, India and Japan are a part of **QUAD** (also includes the USA and Australia) and **malabar** (naval) exercise (also includes the USA)

Suggestions for India

➢ India needs to enhance self-reliance against China, so that it could build resilience into the economy's supply networks. Economic measures are of real value in this regard.

- **Ease of Doing Business:** While India appears an attractive option for potential investors both as a market and as a manufacturing base, it needs to accelerate progress in ease of doing business and in skill building.
- **Tax incentives:** These will help in attracting investments from China and other attractive locations like Vietnam and the Philippines.
- **Boost Domestic Manufacturing:** India's strategy should be to boost manufacturing competitiveness and increase its share in world trade.
  - **Infrastructure Boost:** In this pursuit, there is a need to create an infrastructure that raises the competitiveness of India's exports.
  - **Removing Structural Bottlenecks:** There is a need to push through long-pending legislation that aims to address the structural bottlenecks (in **4Ls: Land, Labour, Law, Liquidity**) that continue to plague and hinder domestic competitiveness.

Anti-Drug Working Group BRICS

Why in News

Recently, the 4th Session of the **BRICS Anti-Drug Working Group** was held through a video conference.

➢ The session was **chaired by Russia** this year.

Key Points

➢ **Issues Raised by India:** Misuse of darknet and modern technology being used for **drug trafficking by the international criminals**.
- It also called for nodal points to enable **real-time information sharing** among BRICS nations.

➢ **A Global Menace:**
- According to the report released in May 2020 by the **United Nations Office on Drugs and Crime Report** (**UNODC**), **Covid-19** induced lockdowns and movement restrictions may lead to an initial statistical reduction in drug seizures, but is **unlikely to have any effect on illicit drug supply.**

➢ India and Illicit Drug Trade:
- **Major Hub of Illicit Drug Trade:** According to **UNODC,** India is one of the major hubs of illicit drug trade ranging from age-old **cannabis** to newer prescription drugs like tramadol, and designer drugs like methamphetamine.

drishti

- ❍ **Drug Trafficking Routes:** India is in the **middle of two major illicit opium production** regions in the world, the **Golden Crescent (Iran-Afghanistan-Pakistan)** in the west and the **Golden Triangle (South-East Asia)** in the east.
- ➢ **Anti-Drug Action Plan:**
  - ❍ India has launched the **Anti-Drug Action Plan for 2020-21** which includes:
    - De-addiction Facilities,
    - Drop-in-Centres for Addicts,
    - Integrated Rehabilitation Centre for Addicts (IRCAs), and
    - Drug-Free India Campaign.

> **Golden Triangle**
> - ➢ It represents the region coinciding with the rural mountains of Myanmar, Laos, and Thailand.
> - ➢ It is Southeast Asia's main opium-producing region and one of the oldest narcotics supply routes to Europe and North America.
>
> **Golden Crescent**
> - ➢ This region of South Asia is a principal global site for opium production and distribution.
> - ➢ It comprises Afghanistan, Iran, and Pakistan.

- ➢ **Darknet:**
  - ❍ It refers to the **hidden internet platform** used for **narcotics sale, exchange of pornographic content and other illegal activities** by using the secret alleys of the **onion router** (ToR- a free and open-source software for enabling anonymous communication) to stay away from the surveillance of law enforcement agencies.
    - It is **tough to crack** because of its end-to-end encryption.
  - ❍ The **dark net is part of the deep web**, which encompasses all unindexed sites that don't pop up when an Internet search is done.
  - ❍ However, **not all activities associated with the deep web are nefarious like darknet.** In most cases, these pages are not searchable because they are **password-protected** and require authorization in order to access them.

- Personal email, online banking, and other similar sites are included under the umbrella of the deep web.
- ❍ The internet we see today is the only tip of the iceberg, the majority is deep web only.

Turkey-Greece Stand-off

Why in News

Recently, France has deployed its military in the eastern Mediterranean Sea amid **tensions between Greece and Turkey** over **recently-discovered gas reserves**.

- ➢ According to France, the military has been deployed **to strengthen the autonomous assessment of the situation** and to **affirm France's commitment to free movement**, to the security of maritime navigation in the Mediterranean and **respect for international law.**

Key Points

- ➢ **The Stand-off:**
  - ❍ **Reason:** The **European Union (EU)** and its allies in West Asia and North Africa made **plans to build a gas pipeline** from the Mediterranean to Europe's mainland to transport the gas. However, **they have kept Turkey out of it**, which has infuriated Turkey.
    - The gas transport would help **reduce the EU's dependency on Russia**.
    - Earlier in 2019, the **EastMed Gas Forum** was formed by **Cyprus, Egypt, Greece, Israel, Italy, Jordan and Palestine**, and **Turkey was again excluded**.
  - ❍ **Turkey's Counter:** Turkey challenged the EU pipeline project and reached an agreement with **Libya** to

form an **Exclusive Economic Zone (EEZ)** from its southern shores to Libya's northern coast across the Mediterranean.

- However, Greece **claimed the Turkish zone violated its maritime sovereignty** and later announced its EEZ with Egypt, which clashed with Turkey's zone.
- Reacting to the deal, Turkey sent its survey ship near the i**sland of Kastellorizo** area mentioned in the **Greece-Egypt agreement.**
- This is not the first time Greece and Turkey have been at odds. Over the past four decades, the **countries have gone to war at least three times**.

➢ **Issues Involved:**

- ❍ **Overlapping Claims:** Turkey and Greece, vehemently **disagree over overlapping claims to hydro-carbon resources** in the region based on **conflicting views on the extent of their continental shelves in waters** dotted with mostly Greek islands.
    - Turkey says that despite having **the longest coastline in the eastern Mediterranean** it is **confined into a narrow strip of waters due to the extension of Greece's continental shelf**, based on the presence of many Greek islands near its shore.
    - The island of Kastellorizo, which is about 2 km off Turkey's southern coast and 570 km from the Greek mainland, is a particular source of Turkish frustration.
- ❍ **Involvement of Many Countries:**The highly complicated issue now has the **potential to involve Europe, West Asia and North Africa.**
    - France, the EU's most powerful military force, has **thrown its weight behind Greece and Cyprus.**
    - **Cyprus is physically divided** with the **southern part ruled by the internationally-recognised governmen**t and the **northern part controlled by Turkey.**
    - An **alliance** is also emerging among Greece, Cyprus, Italy and France, which is backed by Egypt, Israel and the UAE.
    - Turkey stands **almost isolated**, but remains a **key power** in the Mediterranean.

Chora Museum and New Gas Field: Turkey

Why in News

Recently, the Turkish President reconverted the **Chora museum into a mosque.** This is the second museum after **Hagia Sophia** to be converted into a mosque. Turkey has also found a new gas field in Black Sea.

Key Points

➢ **Chora Museum**:

- ❍ It was **built initially as a church in 534 AD**, during the early **Byzantine period.**
- ❍ In the 11th century, its **internal walls, pillars and domes were covered with mosaics and frescoes** showing scenes from **biblical stories**.
- ❍ After the conquest of **Constantinople (capital city of the Roman Empire) by the Ottomans** (1453), the church was seized and **turned into a mosque** in 1511.
- ❍ In 1945, it was **converted into a museum.**
- ❍ Chora is also known as **Kariye in Turkish and** the mediaeval **Church of the Holy Saviour in Chora.**

➢ **Reason:**

- ❍ The reconversion can be seen as **Turkish President's pro islamic policies**, where he **emphasises Turkey's Ottoman history** and domestic achievements over Western ideas and influences.
- ❍ By adopting pro Islamic policies, the Turkish President **aims to become leader of the Muslim world.**
    - The Turkish President has also **taken anti-India positions** especially on **Kashmir** to bolster its own position in the Muslim world.
- ❍ It can also be seen as a counter to **USA's recognition of Jerusalem as the capital of Israel.**
    - Jerusalem which has a significant population of Arab-muslims who are becoming more and more hostile because of the **USA's recent stand on Israel-Palestine issue.** This step of conversion of mosques would gain support of Arab countries for Turkey.

Note:

➢ **Gas Field in Black Sea:**

○ Recently, Turkey has found its **biggest ever** (a 320 billion cubic metre) natural gas field discovery in **Black Sea**. The gas field will become functional in 2023.

○ Turkey is determined to become a **net energy exporter**. The discovery has a **potential to transform Turkey's dependence on** Russia, Iran and Azerbaijan for **energy imports**.

○ Currently, Turkey is having **a chronic current account deficit**, any reduction in Turkey's energy import bill would boost its finances. It will also help the **Lira (Currency of Turkey)** to recover against the dollar.

○ Currently, **Turkey is also having strained relations with its neighbour Greece** over exploration of natural resources in Mediterranean sea.

Military Coup in Mali

Why in News

Recently, **Mali's President Ibrahim Boubacar Keita has resigned** after soldiers had arrested him and Prime Minister Boubou Cisse in the capital, Bamako as part of a coup.

➢ It has prompted its West African neighbours to threaten border closures and sanctions against the coup leaders.

Key Points

➢ **Background:** The **2011 crisis in Libya** led Mali along the path to chaos.

○ **Weapons from Libya were supplied across the Sahara Desert** and fuelled a **separatist conflict** in northern Mali. This turned into an **Islamist militant**

offensive which prompted a coup in the capital Bamako (Mali).

➢ **Reasons:** Mali has **three overlapping sets** of problems:

○ **Political crisis** that grew out of the disputed legislative elections of March 2020.

○ **Economic crisis** due to economic stagnation, corruption and further complications by the **Covid-19 pandemic**. There was dissatisfaction among the troops due to poor payments.

○ **Security crisis** due to the failure to contain **terrorism** and jihadists and the actions of the military against civilians.

➢ **Military Coup:** It calls itself the **National Committee for the Salvation of the People** and has **pledged to stabilise the country** by enacting a **political transition and stage elections** within a reasonable time.

○ It has imposed a curfew and closed the borders sealing the country.

○ It would respect all the past agreements, including **Mali's support for anti-jihadist missions** in the region and its **commitment to the Algiers process** which is a **2015 peace agreement between the Malian government and armed groups in the north of the country**.

○ It held that **United Nations Multidimensional Integrated Stabilization Mission in Mali** (MINUSMA), **France's Barkhane force**, the **G5 Sahel** (Institutional framework of Burkina Faso, Chad, Mali, Mauritania and Niger), **Takuba** (a European special-forces initiative) will remain Mali's partners.

➢ **Reactions:**

○ **France has urged Mali to return to civilian rule**, saying "the fight against terrorist groups and the defence of democracy and the rule of law are inseparable".

● **France, Mali's former colonial ruler**, has several thousand troops based in Mali fighting Islamist militant groups.

● Various jihadist groups, some linked to **al-Qaeda** and the **Islamic State group**, are based in the deserts of northern Mali, from where they have spread to neighbouring countries, especially Burkina Faso and Niger.

○ The **African Union** had already **suspended Mali** on the account that military coups were something of the past and cannot be accepted in present times.

Note:

○ The **15-member Economic Community of West African States (ECOWAS)** has also **taken swift action against Mali** by closing borders, suspending financial flows and ejecting it from decision-making bodies.

○ The **UN's Security Council** has **demanded the immediate release** of all government officials and the **restoration of constitutional order**.

Republic of Mali

➤ Mali is a vast country stretching into the **Sahara Desert in western Africa**.

➤ Once home to several pre-colonial empires, the **landlocked, arid African country** of Mali is **one of the largest on the continent** and is **among the poorest in the world**.

➤ After **independence from France in 1960,** Mali suffered droughts, rebellions, a coup and 23 years of military dictatorship until **democratic elections in 1992**.

  ○ It has experienced **several military takeovers** and is currently battling to contain a wave of jihadist attacks and ethnic violence.

➤ **Capital:** Bamako.

➤ **Currency:** Communaute Financiere Africaine (CFA) franc.

ASEAN-India Network of Think Tanks

Why in News

Recently, India participated in the **6th roundtable meeting** of the **ASEAN-India** Network of Think Tanks **(AINTT).** ASEAN stands for **Association of Southeast Asian Nations.**

➤ AINTT was established **to provide policy inputs** to India and **Association of Southeast Asian Nations (ASEAN)** countries on future directions of their cooperation.

Key Points

➤ **Issues Raised by India:**

  ○ India **highlighted the difficulties** that were hindering strong response to deal with the **Covid-19 pandemic**. It said that **individual behaviour of many states and old-styled multilateral organisations** prevented a collective response to global pandemic.

    ● India indirectly referred to the failure of the **United Nations Security Council** (UNSC) to issue a statement on the pandemic due **to sharp differences** between permanent UNSC members China and the USA.

    ● The reference also included the **USA pulling out** of the **World Health Organisation (WHO)** after accusing it of acting on the behest of China – by declaring Covid-19 a pandemic late.

  ○ According to India the **big issue that confronts the world** after Covid-19 pandemic is not just the state of the economy, but also **includes the damage to societies or the challenges to governance.**

  ○ The pandemic has also thrown a debate on the **future directions of global affairs and world order.**

➤ **Suggestions made by India:**

  ○ It called upon the ASEAN countries to look beyond current practice in trade, politics and security to find solutions to the challenges posed by pandemic.

  ○ India urged for **greater cooperation to counter challenges of pandemic** and called for **collective solutions.**

    ● As part of that, India asked the countries to adopt the idea of **strategic autonomy** to be used in the context of global supply chains**.**

    ● The reference was to countries looking to move production facilities out of China or at least reduce their dependence on them after the pandemic exposed the weaknesses of overdependence on China.

    ● **Strategic autonomy** can be defined as 'the ability of a state to pursue its national interests and adopt its preferred foreign policy without being constrained in any manner by other states.

Weakening Pakistan-Saudi Arabia Relations

Why in News

Recently, a delegation led by Pakistan Army Chief visited Saudi Arabia but were denied a meeting with Crown Prince Mohammed bin Salman (MBS).

➢ It highlights the **rift between Pakistan and Saudi Arabia** in general and **specifically over the issue of Jammu and Kashmir**.

Key Points

➢ **Saudi's Changing Perspective on India:**
○ Saudi's **increasing friendly and supportive nature towards India** has been a **gradual process under Crown Prince MBS** because he wants to **diversify Saudi's heavily oil-dependent economy** and sees India as a valuable partner in the region.
○ **Saudi Arabia is India's fourth-largest trade partner** (after China, the USA and Japan) and a major source of energy.
● India **imports around 18% of its crude oil** requirement from Saudi Arabia which is also a **major source of LPG** for India.
○ With **India stopping oil imports from Iran** due to the **threat of sanctions by the USA**, the importance of Saudi Arabia increases even more.

➢ **Increasing China Factor:**
○ **Pakistan and China** call themselves "**all-weather allies**" and "**iron brothers**".
○ China has **supported Pakistan on the Kashmir issue**, raising it at the **United Nations Security Council** thrice, over the last year.
○ China has also emerged as Pakistan's biggest benefactor through its funding of the **China-Pakistan Economic Corridor** (CPEC).
● Originally valued at USD 46 billion, China's commitment to Pakistan now stands at USD 62 billion.
○ **Saudi Arabia has also invested in CPEC projects**, to the tune of USD 10 billion but **Pakistan now seems more interested in Beijing** for both diplomatic and economic support.
○ **Pakistani leaders' visits to China** play an important role in further strengthening the Pakistan-China All-Weather Strategic Cooperative Partnership.

➢ **Implications for India:**
○ India has **favoured and supported the Arab world** and has worked the diplomatic levers through high-level visits and open opportunities for investment and business.
○ India has been **closely noticing the developments** between Pakistan and Saudi Arabia but **has not said anything publicly**.

○ **Saudi's silence on the issues of Jammu and Kashmir and the CAA-NRC** has also emboldened India.
○ **Closer ties between China and Pakistan are worrying for India**, especially during the **ongoing standoff** but with Saudi Arabia's support, India may have leverage over Pakistan.

Saudi Arabia and Pakistan Relations

➢ **History of Cooperation and Support:**
○ The relationship was most prominent during the **1971 war between India and Pakistan** when Saudi Arabia is also reported to have transferred arms and equipment to Pakistan.

● **Saudi held that Indian actions were "treacherous and contrary to all international covenants and human values"** and found no justification for the Indian aggression except "India's desire to dismember Pakistan and tarnish its Islamic creed".
○ Post-war, **Saudi Arabia consistently supported the call for the return of Pakistan's prisoners of war** and for dropping the **Dhaka Trial** against them. It also gave loans to Pakistan enabling it to buy arms worth about USD 1 million by 1977.
○ **Saudi oil and dollars have kept Pakistan's economy afloat** after sanctions following the nuclear tests.
● Saudi has provided oil on deferred payments to Pakistan whenever it ran into economic difficulty.
○ Saudi's **funding of madrasas** has led to their growth and spread which in turn has **given rise to religious extremism**.
○ In 1990, Pakistan sent its ground forces to defend Saudi Arabia against **Iraq's invasion of Kuwait**.

➢ **Emerging Differences:**
○ Pakistan lobbied with the **Organisation of Islamic Conference** (OIC) for criticising the Indian move of **revoking Article 370 in Jammu and Kashmir** but statements by **Saudi Arabia and the UAE were not harshly critical** of India.
● Pakistan has tried to rouse the sentiments among the Islamic countries, but **only Turkey and Malaysia have publicly criticised India**.
● The alignment over Kashmir at the OIC crystallised since 1990 when the insurgency in Jammu and

Note:

Kashmir began and since then, it has regularly issued statements on the issue.

- Pakistan has **accused Saudi of failing to deliver on the Kashmir cause** and OIC for not playing a leadership role in backing Pakistan against India.

○ In 2015, Pakistan's Parliament decided **not to support the Saudi military effort to restore an internationally recognised government in Yemen**.

○ In February 2019 after the Pulwama terror attack, **Saudi Arabia and the UAE, along with the USA**, put in efforts on the release of the Indian Wing Commander Abhinandan who was captured by Pakistan.

○ Saudi Arabia angered by Pakistan's accusations **demanded the return of the USD 3 billion loan and refused to sell oil on deferred payment**. Pakistan immediately returned USD 1 billion, displaying the rift.

- In November 2018, Saudi announced a USD 6.2 billion loan package for Pakistan which included USD 3 billion in loans and an oil credit facility amounting to USD 3.2 billion.

- Pakistan is **unable to pay the next tranche which seems difficult given the current economic situation** and to make things worse, Saudi has refused to take part in Pakistan's patch-up exercise.

○ Pakistan's **efforts to please Turkey and Malaysia have also angered Saudi Arabia** because Turkey has been trying to position itself as the new leader of the Muslim world, challenging Saudi Arabia's long-held position.

Boundary Working Group: India-Nepal

Why in News

Recently, it has been reported that **Nepal has proposed a meeting of the Boundary Working Group (BWG)** in August end or early September 2020.

➢ The meeting was proposed during **a telephonic conversation between the Prime Ministers of the Countries** on **15th August 2020 (India's 74th Independence Day)**.

➢ This high level contact came **after nearly nine months of tension** and war of words **after India** (in November 2019) **asserted control over the Kalapani-Lipulekh-Limpiyadhura** region of **Pithoragarh (Uttrakhand)** which is **claimed by Nepal.**

Key Points

➢ **Boundary Working Group (BWG):**

○ The BWG is a joint agency constituted by the governments of India and Nepal in **2014** to carry out works in the fields of construction, restoration and repair of boundary pillars including clearance of 'no-man's land' and other technical tasks.

○ **Led by the Surveyor General of India,** the **BWG is different from the foreign secretaries meeting that is being sought to discuss the Kalapani border dispute**, but it is an important mechanism to review the boundary work.

- Survey of India is the **National Mapping Agency** under the **Department of Science & Technology.**

○ The group so far has held **six meetings**. The **last meeting** was on 28th August 2019 in Dehradun (Uttrakhand).

○ The **BWG's inputs are critical** as they are given to the governments on the basis of **field-level survey.**

➢ **Recent Tension Between the Two Countries:**

○ The border dispute between India and Nepal had come to the fore in **November 2019** when **India published its new map** following the **bifurcation of Jammu and Kashmir** into two Union Territories and the end of its special status under Article 370. The map showed Kalapani as a part of Uttrakhand State.

- **Susta area in** Bihar is another **disputed area between the countries.**

○ Nepal had proposed talks to discuss the boundary issue. It was tentatively scheduled for March 2020, but had to be put off due to the **Covid-19 outbreak.** Nepal suggested a videoconference, and then claimed that India stalled the proposal.

○ **India's inauguration of a new road from Dharchula to Lipulekh on the Mansarovar Yatra** route in May 2020 **provoked the government of Nepal which came out with a new map of Nepal**, depicting Kalapani, Lipulekh and Limpiyadhura region as part of territory.

○ Further, **a Constitution Amendment Bill was passed by Nepal's Parliament to legitimize the alteration or addition of Kalapani, Lipulekh and**

Limpiyadhura to the country's new map. The passage of the Bill and the new map led to the **breakdown of communication between the two countries.**

➢ **Issues Involved:**

○ **India perceives Nepal to be tilting towards China** under the leadership of Prime Minister K P Oli and his Nepal Communist Party.

○ From **Nepal's** perspective, **Indian diplomacy seems increasingly unresponsive under the centralised control of the Prime Minister's Office.**

● Nepal has thrice approached India officially for boundary dialogue since November 2019, however India has maintained that Nepal has to first create the right conditions for it.

BRICS 5G Innovation Base

Why in News

China has proposed the creation of a **BRICS innovation base in China** to take forward **5G** and **Artificial Intelligence** (AI) cooperation among the five countries of **BRICS** i.e. Brazil, Russia, India, China and South Africa.

Key Points

➢ China urged fellow nations, including India, to boost cooperation in areas including 5G and Artificial Intelligence.

➢ This move could pose a conundrum before **India** who is having **issues with China** in recent times but other countries seem to willing to allow China's participation in their 5G networks.

○ India is unlikely to allow Chinese participation in the roll-out of its national 5G network, particularly in the wake of recent moves to tighten investment from China and to **ban 59 Chinese apps**, citing national security concerns.

○ A high-level committee on 5G is **opposed to including Chinese vendors** including Huawei in the 5G trials.

○ Indian intelligence assessments have also expressed concerns on the possible **direct or indirect links of several Chinese companies, including Huawei, with the Chinese military.**

○ India has made clear that a return to normalcy cannot be possible while tensions along the **Line of Actual Control** remain unresolved.

○ It needs to be noted that India has recently joined the **'Global Partnership on Artificial Intelligence (GPAI)'** as a founding member to support the **responsible and human-centric development** and use of Artificial Intelligence (AI).

➢ **Russia** has agreed to work with China on 5G and with Chinese telecommunications firm **Huawei**, which has been largely banned by the United States.

○ Huawei has been at the centre of rising USA-China tensions over technology and security.

○ The USA has restricted China's access to chip making tools. Huawei may face shortages in supply of processor chips for which it relies on the USA.

➢ In **South Africa**, Huawei is providing services to three of its telecom operators in the roll-out of their 5G networks.

➢ **Brazil** has allowed participation of Huawein in 5G trials. More than a third of Brazil's 4G network operators use Huawei equipment. Brazil maintains that Huawei has capacity above its international competitors.

Conflict in Libya

Why in News

The internal conflict in Libya that has been running since 2011 has shown signs of de-escalation as the rival authorities in the country have called for a ceasefire.

Key Points

➢ **Rival Forces:** The Self-proclaimed **Libyan National Army (LNA)** led by **Khalifa Haftar** has been battling forces aligned with the **Tripoli-based, internationally recognised Government of National Accord (GNA).**

○ LNA has long enjoyed backing from countries including the **United Arab Emirates, Egypt, Russia and Jordan.**

○ **The USA, Turkey and Qata**r support the GNA.

➢ **Ceasefire:** The ceasefire call by GNA head proposed **demilitarising Sirte city and resumption of oil production** until a political deal is reached. It has also called for elections in March 2021.

○ The LNA dismissed this proposal, but a

Note:

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parallel ceasefire call by the LNA-aligned parliament has proposed **Sirte** as the seat of a new government.

Background

➢ In 2011, the **first civil war** broke out in Libya against the authoritarian regime of Gaddafi. This war was a part of a series of anti-dictatorial protests in countries of Arab world like Tunisia, Morocco, Iraq, Algeria, Lebanon, Jordan etc, known as the **Arab Spring**.

➢ In response to the civil war, a **multi-state NATO-led coalition** began a military intervention in Libya in March 2011, aimed at protecting civilians and providing cover for a rebel advance.

    ❍ The NATO intervention was backed by a **UN Security Council resolution 1973** which was supported by 10 countries. 5 countries viz. **India**, Brazil, Germany, Russia and China abstained from voting.

➢ A **UN-backed internationally recognized** government was put in place called the **Government of National Accord** (GNA) which was supposed to bring out a democratic transition.

➢ However, GNA **failed to provide political stability** to the country.

➢ LNA captured the East of Libya and has been running long campaign against Islamist groups and other opponents since then.

➢ Libya has no single government currently, with **LNA backing the Tobruk-based parliament which governs East of Libya**, and the **GNA which controls Libya's western parts fromTripoli.**

➢ Both sides have been in constant conflict since 2014, in what has been termed as the **second Libyan Civil War**. In addition to these, there are also **smaller rival groups** in the country like the **Shura Council of Benghazi Revolutionaries, Islamic State of Iraq and the Levant** etc.

Impact

➢ Nearly 4,00,000 Libyans have been **displaced** over the past nine years. Thousands more have **died**.

➢ The conflict has cost tens of **billions of dollars in lost oil revenue**, damaged infrastructure, and sharply reduced living standards.

➢ **Covid-19** infections have started to surge.

➢ Libya, a member of **OPEC**, holds Africa'**s largest oil reserves**, producing 1.6 million barrels per day before 2011. Blockades and presence of military forces have caused **output to fluctuate** sharply since then, affecting the **oil prices.**

➢ **International Response:**

    ❍ The **International Berlin conference,** held on 19th January 2020, was attended by Libyan parties and other concerned countries.

      ● As a result of this conference, the UN Security Council endorsed a **55-point road map** for ending the war in Libya in February 2020.

      ● The resolution demands that all countries refrain from interfering in Libya's conflict and its internal affairs and observe a **UN arms embargo**, including ceasing all support for and withdrawing all armed mercenary personnel.

    ❍ Egypt, in association with LNA, proposed the **Cairo Declaration** on 6th June, 2020, for the Second Libyan Civil War ceasefire.

    ❍ The USA has ordered **evacuation of its troops** stationed in **Tripoli**.

    ❍ **India evacuated** its contingent of peacekeeping forces consisting of 15 **CRPF** personnel from Tripoli. India has also asked its citizens there to exercise extreme caution.

➢ **India's Stand:**

    ❍ India has **expressed concern** over continuing conflict and instability in Libya and said it **supports** efforts towards **immediate cessation of all hostilities** in the country.

    ❍ Although India has been critical of the USA military intervention in Libya on the ground that civilians would be affected, its stand on Libya has been more of a **realistic one** as it has many **vested interests i**n LIbya.

      ● **Economic :** The regime in Libya needs to be a friendly one since Libya is an oil rich country and political instability could affect Indian **industrial investments and energy security interests** there. Indian companies, especially in the hydrocarbon, power, construction and IT sector, have several ongoing projects in Libya.

      ● **Diaspora:** Considering an estimated **18,000 Indians** who work in Libya, it is a considerable contribution to the remittance economy and adds to India's foreign exchange

      ● **Foreign Policy:** Supporting western intrusion into sovereignty of a country will not set a good precedent for other third-world countries.

Note:

Taliban Delegation in Pakistan

Why in News

Recently, a **Taliban delegation visited Pakistan** to discuss the way forward in the Afghan peace process.

➢ The Taliban delegation was led by their political chief Mullah Abdul Ghani Baradar.

Key Points

➢ **Pakistan Stand:**
  ○ It had played a facilitating role on the Afghan issue, which led to a peace agreement between the USA and the Taliban.
  ○ It has reiterated its commitment to further deepen the ties with Afghanistan and enhance cooperation in all fields.

➢ **Issues Involved:**
  ○ The Taliban visited Pakistan in the backdrop of stalled intra-Afghan peace dialogue over the issue of **prisoners release.**
  ○ The Taliban also want to speed up the intra-Afghan peace dialogue.
  ○ Earlier, to resolve the issue, the Afghanistan government had convened **Loya Jirga (grand assembly),** which also approved the release of prisoners and further the peace process.

➢ **India's Interests in Afghanistan:**
  ○ India has a **major stake** in the stability of Afghanistan. India has invested considerable resources in Afghanistan's development. **E.g.** the **Afghan Parliament, the Zaranj-Delaram Highway,** Afghanistan-India Friendship Dam **(Salma Dam)** among others.
  ○ India favours the continuation of the current Afghanistan government in power, which it considers a strategic asset vis-à-vis Pakistan.
    ● An increased political and military role for the Taliban and the expansion of its territorial control should be of great concern to India since the Taliban is widely believed to be a protégé of Pakistan.
  ○ Afghanistan is the **gateway to Central Asia.**
  ○ Withdrawal of the USA troops could result in the breeding of the fertile ground for various anti-India terrorist outfits like Lashkar-e-Taiba or Jaish-e-Mohammed.

HELPING HAND
India's pledged assistance to Afghanistan stands at $3.1 billion since November 2001.

Infrastructure projects with Indian help:
1. A 218 km-road project from Zaranj to Delaram in south western Afghanistan
2. A 220 kV DC transmission line from Pul-e-Khumri to Kabul.
3. The Salma Dam power project in Herat province.
4. The Afghan parliament and the Indira Gandhi Institute of Child Health and Habibia School, both in Kabul.
5. A 220/110/20 kV substation at Chimtala.

India-Vietnam Meeting

Why in News

Recently, the **17th meeting of India-Vietnam Joint Commission on Trade, Economic, Scientific and Technological Cooperation** was held.

➢ Both sides reviewed the recent developments in **India-Vietnam Comprehensive Strategic Partnership** (since 2016) and discussed the future trajectory of their wide-ranging engagement.

Key Points

➢ **Indo-Pacific Region:**

  ○ India and Vietnam agreed to enhance their bilateral cooperation in line with **India's Indo-Pacific Oceans Initiative (IPOI)** and the **ASEAN's Outlook on Indo-Pacific** to achieve shared security, prosperity and growth for all in the **region.**
  ○ This has come in the backdrop of **China's aggression** in the Indo-Pacific region including **South China Sea region** and its actions along the **Line of Actual Control (LAC)** with India.

➢ **Cooperation at Multilateral and Regional Forums:**
  ○ Both sides agreed to coordinate closely at multilateral forums, including at the **UN Security Council**, where both India and Vietnam will **serve concurrently as non-permanent members in 2021.**

Note:

Indo-Pacific Oceans Initiative
➢ IPOI was launched by the Prime Minister of India at the **East Asia Summit** in November **2019.**
➢ It focuses on **seven central pillars** conceived around Maritime Security, Maritime Ecology, Maritime Resources, Capacity Building and Resource Sharing, Disaster Risk Reduction and Management, Science, Technology and Academic Cooperation, and Trade Connectivity and Maritime Transport.

○ They also agreed to step up cooperation and coordination at important regional forums under the ASEAN framework.
  ● India and Vietnam closely cooperate in various **regional forums** such as **East Asia Summit**, **Mekong Ganga Cooperation**, **Asia Europe Meeting (ASEM)**.
  ● India appreciated the positive leadership provided by Vietnam to ASEAN in 2020 when the world is faced with the **Covid -19 pandemic.**
    ■ Vietnam is the chair of ASEAN for 2020.
➢ **Economic Engagement:**
○ They agreed to explore closer cooperation in emerging areas such as **civil nuclear energy, space, marine sciences and new technologies.**
○ India invited Vietnam to take advantage of India's new economic capacities and demands.
  ● India reaffirmed its **development and capacity building assistance to Vietnam** through initiatives such as **Quick Impact Projects (QIP)**, **Indian Technical and Economic Cooperation (ITEC)** and e-ITEC initiatives, **PhD fellowships**, as well as projects in **water resource management in Vietnam's Mekong Delta region, SDGs**, digital connectivity and heritage conservation.

India Announces Package to the Maldives

Why in News
Recently, India has committed to the Maldives a five-pronged package including air, sea, intra-island and telecommunications to help it deal with the economic impact of the **Covid-19** pandemic.

Key Points
➢ **Greater Malé Connectivity Project:**

○ A financial package consisting of a grant of USD 100 million and new line of credit of USD 400 million.
○ This will be the **largest civilian infrastructure project in the Maldives**, connecting Malé (the capital) with three neighbouring islands, Villingili, Gulhifalhu (**where a port is being built under Indian line of credit**) and Thilafushi (new industrial zone), by the construction of a bridge-and-causeway link.
➢ **Air Travel Bubble Between India and Maldives:** This will facilitate movement of people for employment, tourism and medical emergencies.
○ Maldives is the **first neighbouring country** of India with which an **air bubble** is being operationalised.
➢ **Quotas for Supply of Essential Commodities:** This was renewed for 2020-21. The commodities include food items as well as river sand and stone aggregates to assure food security, and supply of essential construction items.
➢ **Financial Aid:** In addition, financial aid of USD 250 million will be provided to the Maldives by India.

Impact on India-Maldives-China
➢ The Indian aid is being appreciated and contrasted with the previous expensive commercial loans to the Maldives by China which are being termed **"debt-trap diplomacy"** of **China**, wherein China intentionally **extends excessive credit to another country** with the intention of extracting economic or political concessions from the debtor country.
➢ The GMCP is also being compared to the Chinese built **Sinemale Friendship bridge** connecting Male to two other islands as it will be much bigger than the latter.
➢ The India-Maldives relationship suffered a setback when the Maldives entered into a **Free-Trade Agreement (FTA)** with China in 2017.
○ However, with the **election of a new pro-India government in the Maldives**, the relationships have improved and the Maldives is also considering **pulling out of the FTA with China.**
➢ Since September 2018, India-Maldives have seen a number of bilateral visits.
○ **India's Prime Minister visited the Maldives** to attend the swearing-in ceremony of President Solih.
○ **Maldives' President also visited India** in December 2018.
○ The **Home Minister of Maldives met Indian Home Minister** on 21st February 2020.

Note:

drishti

Significance of the Maldives for India

➢ **Geographical:** Maldives' **proximity to the west coast of India.**

- ○ The Maldives is barely 70 nautical miles away from Minicoy, the southernmost island of Lakshadweep.

- ○ Lakshadweep group is separated from the Maldives by **Eight Degree Channel.**

- ○ It is situated at the **hub of commercial sea-lanes** running through the Indian Ocean. More than 97% of India's international trade by volume and 75% by value passes through the region.

➢ **History:** India-Maldives share ethnic, linguistic, cultural, religious and commercial links.

- ○ India was among the first to recognize the Maldives after its **independence in 1965** and later established its mission at Male in 1972.

- ○ **Operation Cactus:** In 1988, in response to a request from the Maldives, India activated Operation Cactus to **deploy its military and ensure regime continuity** in Male.

➢ **Defence:** Its potential to allow a third nation's naval presence in the area.

- ○ Since China's naval expansion into the Indian Ocean, Maldives' significance has steadily grown and now it's at the heart of international geopolitics.

- ○ India provides the largest number of training opportunities for Maldivian National Defence Force (MNDF), meeting around 70% of their defence training requirements.

- ○ **Ekuverin** is a joint military exercise between India and Maldives.

➢ **Geo-political:** Maldives is an important aspect of India's **Neighbourhood First policy.**

- ○ **'India First'** has been a stated policy of the Government of the Maldives.

- ○ Maldives is **a member of the South Asian Association for Regional Cooperation (SAARC)** and the **South Asia Subregional Economic Cooperation (SASEC).**

➢ **Trade and Tourism:** India is Maldives' 4th largest trade partner after UAE, China and Singapore. In 2018, India was the 5th largest source of tourist arrivals in the Maldives.

- ○ In 2018, India was the 5th largest source of tourist arrivals in the Maldives.

- ○ India-Maldives signed a trade agreement in 1981, which provides for export of essential commodities.

- ○ India-Maldives bilateral trade now stands at USD 288.99 million heavily in favour of India.

➢ **Disaster Management:** The Government of India has provided large-scale assistance to the Maldives in the aftermath of the 2004 Indian Ocean tsunami and during the 2014 Male water crisis.

➢ **Diaspora:** There is a **significant Indian diaspora in the Maldives.** Indians are the **second largest expatriate community in the Maldives** with an approximate strength of around 22,000. About 25% of doctors and teachers in Maldives are Indian nationals.

ASEAN-India Economic Ministers' Consultations

Why in News

Recently, the 17th **ASEAN-India** Economic Ministers Consultations was held virtually, co-chaired by India and Vietnam.

➢ The meeting was attended by the Trade Ministers of all the 10 **ASEAN (Association of Southeast Asian Nations)** countries viz. Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam.

Note:

Key Points

➢ **Related to Covid-19:** The Ministers reaffirmed their commitment to take **collective actions in mitigating the economic impact of the Covid-19 pandemic.**

○ They also resolved to **ensure macroeconomic and financial stabilit**y and **resilient supply chain connectivity**, particularly the unimpeded flow of essential goods and medicines in the region, in compliance with the **WTO** rules.

➢ **AIBC's Report:** The report of the **ASEAN India Business Council (AIBC)** was placed.

○ It has recommended that the **ASEAN India Trade in Goods Agreement (AITIGA) be reviewed** for mutual benefit.

○ The review will make the Agreement **modern with contemporary trade facilitative practices**, and **streamline customs and regulatory procedures.**

○ **ASEAN India-Business Council (AIBC)** was set up in March 2003 as a forum to bring key **private sector players from India and the ASEAN countries on a single platform** for business networking and sharing of ideas.

➢ **AITIGA:** Discussions on review of the **ASEAN India Trade in Goods Agreement (AITIGA)** took place.

○ The AITIGA is a **Free Trade Agreement (FTA)** among the ten member states of the Association of Southeast Asian Nations (ASEAN) and India which came into force in January, 2010.

○ India emphasized on review on AITIGA at the earliest and the need to **strengthen the Rules of Origin** provisions, work towards **removal of non-tariff barriers** and provide **better market access.**

○ India has concerns regarding the FTA, given that its FTA with ASEAN is **leading to increased trade deficits** with several ASEAN partners.

● India's trade deficit with the ASEAN rose from around 5 billion USD in 2011 to 21.8 USD billion in 2019.

➢ **Background:**

○ India dropped out of the **Regional Comprehensive Economic Partnership (RCEP)** in November 2019 at **ASEAN+3** summit, because of increasing trade deficits with partner nations and **increasing China-India tensions.**

○ Recently, India participated in the **6th roundtable meeting of the ASEAN-India Network of Think Tanks (AINTT).**

● India **highlighted the difficulties** that are hindering strong response to deal with the **Covid-19 pandemic**.

India Pulls Out of Kavkaz 2020

Why in News

Recently, India has withdrawn its participation from **Kavkaz 2020,** a multinational tri-services exercise in Russia, citing **Covid-19** as the official reason.

Key Points

➢ **Other Possible Reasons for Withdrawal:**

○ Participation of Chinese, Turkish and Pakistani troops.

● The **stand-off** at **Line of Actual Control** (LAC) with China has been on-going since May 2020

and several rounds of talks for disengagement have failed to end the impasse.

● Turkey has been critical of India's policies on Kashmir.

○ Participation of Georgian breakaway regions of Abkhazia and South Ossetia in the exercise which have **been recognised only by Russia and few other countries.**

● India **does not recognize** these breakaway regions.

➢ **Kavkaz-2020 Exercise:**

○ It is a strategic **command-post exercise**, and also known as **Caucasus-2020.**

○ The **tri-service exercise** is part of a **four-year exercise cycle** of the Russian army. Previous editions of the exercise were held in 2012 and 2016.

● In 2020, it will be conducted in the Astrakhan province of Southern Russia.

○ Member countries of **Shanghai Cooperation Organisation** (SCO) and **Central Asian countries** would be participating.

Note:

Sri Lanka to Draft a New Constitution

Why in News

The **Sri Lankan President Gotabaya Rajapaksa** (elected in 2019), while addressing the inaugural session of the Parliament, said that Sri Lanka will draft a new Constitution and **abolish the 19th Amendment** that curtailed the powers of the President and strengthened the role of Parliament.

➢ Sri Lanka's new Cabinet includes members from the Rajapaksa family.

  ❍ **Mahinda Rajapaksha** is the Prime Minister of Sri Lanka.

➢ The Rajapaksa led Sri Lanka People's Party (SLPP) won a landslide victory in the recently held parliamentary elections (August 2020), allowing the influential family to consolidate power for the next five years.

Key Points

➢ **19th Amendment:**

➢ It was **passed in 2015** during the former President Maithripala Sirisena-Prime Minister Ranil Wickremesinghe's term (2015-19).

➢ It sought not only to **clip the President's executive powers,** but also to **strengthen independence of key pillars such as the judiciary, public service and elections.**

  ❍ It brought back the two-term limit on Presidency.

➢ It **prevented dual citizens from contesting elections**. At the time, two of the Rajapaksa family members including the current president were dual citizens of the USA and Sri Lanka.

➢ **New Constitution:**

  ❍ The President said that the new Constitution would prioritise the concept of **"one country, one law for all the people."**

    ● Sri Lanka's **constitution has been changed 19 times from 1978**, creating a lot of uncertainties and confusion.

  ❍ Changes will be made to ensure the stability of Parliament and people's direct representation, while retaining the salutary aspects of the proportional representation system.

  ❍ **Rights activists see the planned changes** to the Constitution as an attempt to further **empower** the SLPP and the Rajpaksha brothers' mainly **Buddhist - Sinhalese speaking electorate.**

➢ **India - Sri Lanka Relations:**

  ❍ **India's Initiatives:**

    ● Recently, the Reserve Bank of India (RBI) has signed an agreement for extending a **USD 400 million currency swap facility to Sri Lanka** to boost the foreign reserves and ensure financial stability of the country, which is badly hit by **Covid-19 pandemic.**

    ● Earlier, India assisted Sri Lanka by sending **four consignments of essential medicines and equipment** in the month of April and May 2020 to fight the pandemic.

    ● The **Indian Housing Project** is Government of India's flagship project of developmental assistance to Sri Lanka. Its initial commitment is to build 50,000 houses for those affected by the civil war as well as for the estate workers in the plantation areas.

  ❍ **Bilateral Cooperation:**

    ● India and Sri Lanka conduct joint **Military (Mitra Shakti)** and **Naval (SLINEX)** exercises.

    ● Given the proximity of the territorial waters of both countries, especially in the Palk Straits and the Gulf of Mannar, incidents of straying of **fishermen** are common. Both countries have agreed on certain practical arrangements to deal with the issue of bona fide fishermen of either side crossing the International Maritime Boundary Line.

  ❍ **Concerns:**

    ● The Rajapaksa brothers have **not paid that much attention to India's entreaties** after the civil war ended **to devolve more powers to Tamil areas.**

    ● Sri Lanka's new ruling clan is sharply **aware of India's troubles with China on the LAC** and in the region. The Rajapaksas will continue **using China as a counter-weight to India.**

Note:

Chinese Involvement in Teesta River

Why in News

Bangladesh is likely to receive **an almost USD 1 billion loan from China** for a comprehensive management and restoration **project on the Teesta river**.

➢ **The Teesta river water conflict** is one of the most contentious issues between **India and Bangladesh** and the discussion comes amidst the ongoing **India-China standoff** in Ladakh.

Teesta River

➢ It is a **tributary of the Brahmaputra** (known as Jamuna in Bangladesh), flowing through India and Bangladesh.

➢ **Origin: In the Himalayas near Chunthang, Sikkim** and flows to the south through West Bengal before entering Bangladesh.

➢ **Drainage:** It covers nearly the entire floodplains of Sikkim while draining 2,800 sq km of Bangladesh. For West Bengal, it is the lifeline of half-a-dozen districts in North Bengal.

➢ **Latest Development:** In March 2020, the **Border Roads Organisation** (BRO) opened a 360 feet long bailey suspension bridge over Teesta river in Munshithang, Sikkim.

Key Points

➢ **About the Project:** The management and restoration project is **aimed at managing the river basin efficiently, controlling floods and tackling the water crisis** in Bangladesh in summers.

➢ **India-Bangladesh Teesta Dispute:**
  ❍ Bangladesh sought a **fair and equitable distribution of Teesta waters** from India, on the lines of the **Ganga Water Treaty 1996**.
    ● The treaty is an **agreement to share surface waters at the Farakka Barrage** near their mutual border.
  ❍ In **2015**, the Indian Prime Minister's visit to Dhaka **generated expectations** to take forward the issue but it **still remains unresolved**.

● In India, individual **states have significant influence over transboundary**
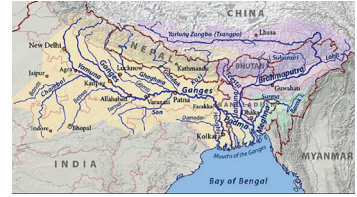
agreements, impeding the policymaking process.

● **West Bengal** is one of the key stakeholders of the Teesta agreement and is **yet to endorse the deal**.

India-Bangladesh Relations

➢ Bangladesh's **crackdown against anti-India outfits** has helped the Indian government **maintain peace in the eastern and Northeast states**.

➢ Bangladesh is **India's biggest trade partner in South Asia** and the economic and development partnership has benefitted it.

➢ India also **grants 15 to 20 lakh visas every year to Bangladesh nationals** for medical treatment, tourism, work and just entertainment.

➢ India has provided **developmental assistance worth USD 10 billion**, making Bangladesh the **largest recipient** of India's total of USD 30 billion aid globally.

➢ For India, Bangladesh has been a **key partner in the Neighbourhood First Policy**.

➢ Both have **cooperated on pandemic-related moves** and India has **provided medical aid** to Bangladesh.
  ❍ Bangladesh supported India's call for a regional (**SAARC**) **emergency fund for fighting Covid-19** and declared a **contribution of USD 1.5 million** in March 2020.
  ❍ Bangladesh is **ready to collaborate in the development of a Covid-19 vaccine**, including its trial and looks forward to the early and affordable availability of the vaccine.

➢ However, the proposed countrywide **National Register of Citizens** (NRC) and the **Citizenship Amendment Act (CAA) 2019** have **irritated the relations.**
  ❍ Bangladesh has expressed reservations about CAA and has held it unnecessary.

➢ Indian Foreign Secretary has recently visited Dhaka to discuss "**security-related issues of mutual interest**" while trying to address the potential irritant issues.

Note:

Science and Technology

Highlights

- Asteroid 2018VP1
- Saliva Direct: Covid-19 Test
- Black Box on Aircraft
- Invisible Shield against Electromagnetic Interference
- Concerns Over DNA Technology Regulation Bill

- Star Formation in Dwarf Galaxies
- Multi-State Phishing Scam
- Controlling Dengue Using Bacteria
- Open API Service in Aarogya Setu
- Development of Synthetic Flavonoids

Asteroid 2018VP1

Why In News

According to the **National Aeronautics and Space Administration (NASA)**, an asteroid named **2018VP1** is on a collision course with Earth.

Key Points

➢ **Asteroid 2018VP1:**
  ○ Asteroid 2018VP1 has a diameter of about **2 metres**, around the size of a small automobile.
  ○ Only **1 in 240** chance that 2018VP1 would impact the Earth. It would **likely burn up into a fireball** after entering the Earth's atmosphere before reaching the ground.
  ○ According to NASA, such an event happens about once every year.

➢ **Asteroid Collision with Earth:**
  ○ **Cut-off Size:** Objects that can cause significant damage upon impact are larger than 30 metres.
  ○ **The Chicxulub Impactor:** It was an asteroid that caused the sudden **extinction** of most **dinosaur** species **66 million years ago**,
    - It had a diameter of over 10 kilometres.

➢ **Deflecting Asteroids:**
  ○ **Methods to Deflect:**
    - **Blowing up** the asteroid before it reaches Earth, **or**
    - **Deflecting it off its Earth-bound course** by hitting it with a spacecraft.

Asteroids

➢ Asteroids also known as minor planets are **rocky remnants** left over from the early formation of our solar system about 4.6 billion years ago.

➢ Many asteroids are known to have a **small companion moon** (some have two moons).

➢ There are also **binary** (double) asteroids, in which two rocky bodies of roughly equal size orbit each other, as well as **triple** asteroid systems.

➢ **Classification of Asteroids:**
  ○ **Main Asteroid Belt:** The majority of known asteroids orbit within the **asteroid belt between Mars and Jupiter**.
  ○ **Trojans:** These asteroids share an **orbit with a larger planet, but do not collide with it** because they gather around two special places in the orbit (called the L4 and L5 Lagrangian points). There, the gravitational pull from the sun and the planet are balanced.
  ○ **Near-Earth Asteroids:** These objects have orbits that pass close by that of Earth. Asteroids that actually cross Earth's orbital path are known as **Earth-crossers**.

○ **The Asteroid Impact and Deflection Assessment (AIDA):** It is the most drastic measure undertaken so far, which includes NASA's **Double Asteroid Redirection Test (DART) mission** and the **European Space Agency's (ESA) Hera**.
  - **Target:** The target is **Didymos**, a **binary near-Earth asteroid**, one of whose bodies is of the size that could pose the most likely significant threat to Earth.

Note:

- Didymos is in orbit between Earth and Mars.
- **Double Asteroid Redirection Test (DART):** The construction of DART began in 2018, which is scheduled to launch in **2021**.
  - Aim is to **slam into the smaller asteroid of the Didymos system** at around **6 km per second** in 2022.
- **Hera**: It is scheduled to launch in **2024**, will arrive at the Didymos system in 2027.
  - Aim is **to measure the impact crater** produced by the DART collision and study the change in the asteroid's orbital trajectory.

Saliva Direct: Covid-19 Test

Why in News

The **USA Food and Drug Administration (FDA)** has authorised the emergency **use of a new saliva-based laboratory diagnostic test for Covid-19** - **'SalivaDirect'.**

Key Points

- **About SalivaDirect:**
  - It is a new **rapid diagnostic test** for novel coronavirus infection that **uses saliva samples**. It is **simpler, less expensive and less invasive than the traditional method** for such testing known as **nasopharyngeal (NP) swabbing.**
    - NP swab is used to **detect upper respiratory tract infections,** such as whooping cough and Covid-19. It is used in **Polymerase Chain Reaction (PCR) and antigen tests.**
    - In this test, secretions from the back of the nose and upper throat are collected using a swab.
    - The secretions are sent to a laboratory where they are grown in order to make it easier to identify which viruses, bacteria or fungi are present.
  - Collecting and testing saliva samples include **three steps:**
    - Saliva is collected without preservative buffers.
    - It is first **treated with proteinase K** followed by a heat inactivation step (to remove contamination).
    - It is then directly used as an input in the dualplex **RT-qPCR mechanism.**
      - In Quantitative Reverse Transcription Polymerase Chain Reaction (RT-qPCR)

mechanism, the **viral RNA** is quantified to detect the novel coronavirus.
- **Coronavirus is made up of Ribonucleic Acid (RNA).**
- **Benefits:**
  - **High Sensitivity:** The sensitivity is about **93%**. SalivaDirect test can detect when the number of virus copies in the saliva sample is as low as 6-12 copies per microlitre.
  - **Non-Invasive:** It uses saliva, instead of relying on nasopharyngeal (nasal) specimens, which makes the sample collection non-invasive.
  - **Protects Healthcare Workers**: Collecting the sample from the nasopharyngeal region requires a swab to be inserted into the back of the nostrils, which very often causes irritation leading to sneezing and coughing, thus exposing healthcare workers from getting exposed to the virus.
  - **Large-scale Testing:**
    - Saliva samples are a **viable alternative to nasopharyngeal swabs** and could allow for at-home, self-administered sample collection for accurate large-scale SARS-CoV-2 testing.
    - Further, collecting nasopharyngeal samples can be uncomfortable to people, discouraging them from getting tested. The saliva test is likely to increase testing compliance.

Black Box on Aircraft

Why in News

The black boxes of the Boeing 737-800 aircraft which recently crashed in Kozhikode (Kerala) have been found.
- These boxes will help investigators gather information about the crucial events that led to the crash.

Key Points

- **About:** A black box, technically known as an **Electronic Flight Data Recorder**, is an orange-coloured heavily protected recording device placed in a flight. It is used to investigate the details of the events immediately preceding an accident.
- **Parts:** The "black box" is made up of two separate pieces of equipment: the Flight Data Recorder (FDR) and a Cockpit Voice Recorder (CVR).

Aircraft Security

➢ **The International Civil Aviation Organization (ICAO)** is a UN specialized agency, established in **1944** to manage the administration and governance of the **Convention on International Civil Aviation (Chicago Convention)**.

○ The Chicago Convention was signed on 7ᵗʰ December, 1944 in Chicago (USA) by 52 signatory states including **India**.

○ It coordinates international air travel, establishes rules of airspace, aircraft registration and safety, security, and sustainability, and details the rights of the signatories in relation to air travel.

➢ **The Bureau of Civil Aviation Security (BCAS)** is an attached office of the Ministry of Civil Aviation (India).

○ It is the regulatory authority for civil aviation security in India.

➢ **The Aircraft Accident Investigation Bureau (AAIB)** is a division of the Ministry of Civil Aviation which investigates aircraft accidents and incidents in India.

➢ Recently, the Lok Sabha passed the **Aircraft (Amendment) Bill, 2020** which seeks to amend the **Aircraft Act, 1934.**

○ FDR records things like airspeed, altitude, vertical acceleration and fuel flow.

○ CVR records the conversations in the cockpit.

➢ **Technology:**

○ Older black boxes used **magnetic tape**, a technology that was first introduced in the 1960s. Magnetic tape works like any tape recorder.

○ These days, black boxes use solid-state memory boards, which came along in the 1990s. **Solid state memory boards** use stacked arrays of memory chips, and are stronger.

○ The FDR contains **Crash-Survivable Memory Units** (CSMUs) which are engineered to withstand extreme heat, jarring crashes and tons of pressure.

○ To make black boxes discoverable in situations where they are under water, they are equipped with a **Beacon** that sends out ultrasound signals for 30 days.

➢ **Limitations:**

○ In certain cases – like the Malaysian Airlines MH370 flight, they are not found.

○ They still lack video recording capabilities.

➢ **Alternatives:** It is being tried to **stream** all of their essential data **directly to a ground-based station** in **realtime** which would eliminate the desperate search for a box that may have been destroyed in a crash, and will be more dependable.

Invisible Shield against Electromagnetic Interference

Why in News

Recently, scientists from the **Centre for Nano and Soft Matter Sciences (CeNS)**, Bengaluru, have **designed a metal mesh structure** to construct an **invisible shield** against **Electromagnetic Interference (EMI)**.

➢ CeNS is an autonomous institute under the Department of Science and Technology, Government of India.

Electromagnetic Interference

➢ EMI is an **electromagnetic emission** that **causes a disturbance** in another piece of electrical equipment.

○ Any device that has an electronic circuit can be susceptible to EMI.

➢ It **compromises the performance** of electrical equipment by obstructing and degrading data, sometimes even losing data completely.

➢ EMI can be **attributed to a wide span of the electromagnetic spectrum** including radio and microwave frequencies.

➢ In 1933, the **International Special Committee on Radio Interference (CISPR)** was created to address emerging concerns over EMI.

Key Points

➢ **Metal Mesh Structure:**

○ The scientists have developed a **copper metal mesh on polyethylene terephthalate (PET) sheet**, instead of continuous film, which exhibits a **visible transmittance** of about 85%.

○ The **metal mesh networks on the substrate are more transparent than continuous film** because it covers only 7% area of the substrate, unlike 100% coverage of the continuous film.

○ Metal mesh provides **better electromagnetic shielding** compared to the same thickness of continuous metal film where transparency can be compromised.

Note:

> **Benefits:**
> ○ The main purpose of the EMI shield is to **isolate a device's energy** so it doesn't affect anything else and **blocks external energy** from getting in.
>> ● Without shielding, electronics wouldn't function as designed or may even stop working altogether.
> ○ This 'invisible' shield can be **used in various military stealth applications** and can cover electromagnetic wave emitter or absorber devices without compromising aesthetics.
>> ● Besides the physical shape, reducing the electromagnetic signature, which includes radar waves and radio signals, is an important element for enhancing the stealth capability of a weapon platform.

Concerns Over DNA Technology Regulation Bill

Why in News

According to the draft report of the **Parliamentary Standing Committee on Science and Technology,** the **DNA Technology (Use and Application) Regulation Bill, 2018** could be misused for **caste or community-based profiling**.

Key Points

> **Key Provisions:**
> ○ The Bill allows the use of the technology to establish the identity of persons in matters of **crime, parentage dispute, emigration or immigration and transplantation of human organs.**
> ○ It provides for establishment of **national and regional DNA data banks** and each databank will maintain **crime scene index, suspects' or undertrials' index and offenders' index** separately**.**
> **Concerns Raised by the Committee:**
> ○ **Misuse of Sensitive Information:**
>> ● The **DNA profiles** can reveal **extremely sensitive information** of an individual.
>> ● Access to such intrusive information can be misused to specifically target individuals and their families with their own genetic data.
> ○ **Storage of DNA Profiles of Unconvicted Persons:**
>> ● The Bill proposes to store DNA profiles of **suspects, undertrials, victims and their relatives**

for future investigations which violates the fundamental right to privacy
> ○ **Removal of DNA Profiles of Accused:**
>> ● The Bill permits **retention of DNA** found at a crime scene in perpetuity, even if conviction of the offender has been overturned.
>> ● The committee has recommended that independent scrutiny must be done of the proposals to **destroy biological samples and remove DNA profiles from the database.**
> ○ **Absence of Robust Data Protections**
>> ● The committee has also called the Bill "premature" and questioned the **security of a huge number of DNA profiles** that will be placed with the **National DNA Data bank** and its regional centres.
> **Need of the Bill:**
> ○ DNA testing is currently being done on an **extremely limited scale in India,** with approximately 30-40 DNA experts in 15-18 laboratories undertaking less than 3,000 cases per year, which represent **2-3% of the total need.**
> ○ The standards of the DNA testing laboratories are not monitored or regulated, in absence of any proper regulation.
> ○ The Bill will enable **identification of missing children.**
>> ● As per the **National Crime Records Bureau**, annually 1,00,000 children go missing.
> ○ The Bill will also help in identifying unidentified **deceased, including disaster victims** and **apprehend repeat offender**s for **heinous crimes such as rape and murder.**
> ○ Over the concerns of misuse it is being said that any and every blood sample collected by a clinical laboratory has the same potential for misuse.
> **Genome India Project (GIP):** Recently, the **Ministry of Science and Technology** also approved an ambitious gene-mapping project called the **Genome India Project (GIP)** which aims to sample and sequence 10,000 genomes in the first phase from across India, to arrive at **a representative Indian genome.**
> ○ Gene Mapping is **different from DNA profiling** as DNA profiling uses small stretches of DNA to identify an individual while gene mapping involves sequencing the whole genome. Gene Mapping is done for scientific and medical uses while DNA profiling is done primarily for forensic and criminal investigation.

Star Formation in Dwarf Galaxies

Why in News

Recently, astronomers from the **Aryabhatta Research Institute of Observational Sciences (ARIES)** have found out the **reasons behind intense star formation in some dwarf galaxies.**

➢ ARIES is an autonomous institute of Department of Science & Technology (DST).

Key Points

➢ **Background:**
  ❍ Amidst the billions of galaxies in the universe, a large number are tiny ones - **100 times less massive than the Milky-way galaxy**. Most of these are called **dwarf galaxies and form stars at a much slower rate** than the massive ones.

Star Formation in Galaxies

➢ Stars are **born within the clouds of dust and gas** scattered throughout most galaxies.

➢ Turbulence deep within these clouds gives rise to knots with sufficient mass that the gas and dust can begin to collapse under its own gravitational attraction.

➢ As the cloud collapses, the material at the center begins to heat up. Known as a **protostar**, it is this hot core that one day becomes a star.
  ❍ Not all of this material ends up as part of a star — the remaining dust can become planets, asteroids, or comets or may remain as dust.

➢ Stars are **fueled by the nuclear fusion of hydrogen to form helium** deep in their interiors. The outflow of energy from the central regions of the star provides the pressure necessary to keep the star from collapsing under its own weight, and the energy by which it shines.
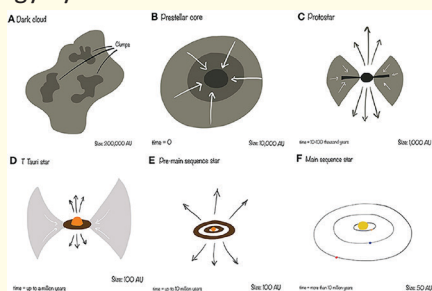
➢ **However,** some dwarf galaxies have been **seen forming new stars at a mass-normalized rate** i.e. 10-100 times more than that of the Milky-way galaxy.
  ● The star-formation activities do not last longer than a few tens of million-years, a period which is much shorter than the age of these galaxies - typically a few billion years.

➢ **Reasons Found Out by the Aries Astronomers:**
  ❍ **Disturbed Hydrogen Distribution:**
    ● Star formation at a high rate requires a very high density of Hydrogen in the galaxies. Multiple nuclei and high concentration of ionized hydrogen have been found in the central region of such galaxies.
    ● Hydrogen in these dwarf galaxies is found to be irregular and sometimes not moving in well-defined orbits i.e. non-symmetric distribution of hydrogen.
  ❍ Galaxy-Galaxy Collision:
    ● Some Hydrogen around these galaxies is also detected in forms of isolated clouds, plumes, and tails as if some other galaxy recently has collided or brushed away with these galaxies, and gas is scattered as debris around the galaxies.

➢ **Telescopes Used for the Study:**
  ❍ Scientists used the **1.3-meter Devasthal Fast Optical Telescope (DFOT) near Nainital (Uttarakhand)** and the **Giant Metrewave Radio Telescope (GMRT) in Maharashtra.**

➢ The above illustration shows the **six steps of star formation** for Sun-like stars.
  ❍ The process starts on **(A)**, where gas and dust in the space between stars (also called the **InterStellar medium**, ISM) collapse into a dense ball of gas called a **prestellar core (B)** that eventually will become the sun.
  ❍ During the collapse a disk **(C)** forms around the core, while two jets are emitted at the poles.
  ❍ At some point, the star stops growing, but gas still falls onto the disk **(D)**. After a few million years this process also halts. The **star is now born (E)**, while the planets are being formed from the left-over material, which will eventually become a solar system **(F)**.

Multi-State Phishing Scam

Why in News

Recently, Haryana Police has **identified** a phishing racket which accessed over 300 nationalized and private bank accounts across many states.

Key Points

➢ Frauds were done with **Phishing** and use of **e-SIMs** as the **main conduit.**

  ❍ **Phishing:** It is a cybercrime in which a target or targets are **contacted by email, telephone, or text message.**

    ● This is done by someone **posing as a legitimate institution** to lure individuals into providing sensitive data such as personally identifiable information, banking and credit card details, and passwords.

  ❍ **e-SIM:** It is the **Subscriber Identification Module (SIM)** embedded in the phone.

    ● It **can not be removed** as opposed to physical SIM cards, which can be removed.

    ● The e-SIMs enable users to change service providers through a **simple process**.

    ● **Multiple networks and numbers** can be stored on a single e-SIM too, so one can have more than one number.

➢ **Online Monetary Frauds in India:**

  ❍ In the **current fiscal (2020-21)**, between April and June, banks reported 530 fraudulent transactions involving debit and credit cards, or techniques such as phishing done over the internet.

➢ **Steps Taken:**

  ❍ **RBI** is taking measures to improve awareness related to **cybersafety** among people through:

    ● **e-BAAT** (Electronic Banking Awareness And Training) programmes.

    ● **Organising campaigns** on safe use of digital payment modes, to avoid sharing critical personal information like PIN, OTP, passwords, etc.

  ❍ RBI has also directed all **banks and authorised payment system operators** to undertake **targeted multi-lingual campaigns** by way of SMS, advertisements in print and visual media to **educate their users** on safe and secure use of digital payments.

❍ The **Computer Emergency Response Team (CERT-in)** functions as the **nodal agency** for **coordination** of all cyber security efforts, emergency responses, and crisis management.

Controlling Dengue Using Bacteria

Why in News

Researchers from the **World Mosquito Program** have used **mosquitoes infected with Wolbachia bacteria** to successfully control dengue in Yogyakarta city of **Indonesia**.

➢ The World Mosquito Program is an Australia-based not-for-profit initiative that exists to protect the global community from mosquito-borne diseases.

Wolbachia

➢ Wolbachia are natural bacteria present in up to 60% of insect species, including some mosquitoes.

➢ However, Wolbachia is **not** usually found in the *Aedes aegypti* mosquito, the primary species responsible for transmitting human viruses such as Zika, dengue, chikungunya and yellow fever.

➢ Wolbachia is **safe** for humans, animals and the environment.

Key Points

➢ **About:** The *Aedes aegypti* mosquito, that spreads **Dengue** and other diseases such as **chikungunya, Zika** and **yellow fever** cannot do so when they are artificially infected with a bacterium, Wolbachia.

  ❍ The bacteria Wolbachia **"inhibits" viral infection,** that is, even if people encounter mosquito bite, they will not be infected. This happens because bacteria does not allow the virus to **replicate** in the mosquito thereby minimising its number within the mosquito.

➢ **Method:** The scientists **infected some mosquitoes with Wolbachia** and then **released** these in the city where they **bred with local mosquitoes**, until nearly all mosquitoes in the area were carrying Wolbachia bacteria. This is called the **Population Replacement Strategy.**

➢ **Results:** At the end of 27 months, the researchers found that the **incidence of dengue was 77% lower** in areas where Wolbachia-infected mosquitoes had

been released, as compared to areas without such deployments.

- ○ This method does not only block Dengue Virus but also **many other viruses** present in mosquitoes.
- ➤ **Other Developments:** Indian Council of Medical Research (ICMR) also has been working on a similar project developing a strain of *Aedes aegypti* containing Wolbachia, known as **Puducherry Strain**.
  - ○ The strain was developed at the **Vector Control Research Centre (VCRC)**, Puducherry in collaboration with Monash University in Australia.

Dengue

- ➤ Dengue is a **mosquito-borne tropical disease** caused by the **dengue virus** (Genus *Flavivirus*), transmitted by several species of mosquito within the genus *Aedes*, principally *Aedes aegypti.*
- ➤ Symptoms include fever, headache, muscle and joint pains, and a characteristic skin rash.
- ➤ There are four strains from Type I-IV, of which **Type-II and IV** are considered more severe.
- ➤ India registered over 1 lakh dengue cases in 2018 and over 1.5 lakh cases in 2019, according to the **National Vector-Borne Disease Control Programme (NVBDCP)**.
- ➤ The dengue vaccine **CYD-TDV** or **Dengvaxia** was approved by the **US Food & Drug Administration** in **2019**, the first dengue vaccine to get the regulatory nod in the US.

Open API
Service in Aarogya Setu

Why in News

The government has announced a **new feature 'Open API Service'** for its contact tracing app **Aarogya Setu.**

Key Points

- ➤ The Open API Service of Aarogya Setu addresses the fear/risk of Covid-19 infections and will help the people, businesses and the **economy to return to normalcy**.
- ➤ The Open API Service of Aarogya Setu, can be **availed by organizations and business entities**.
- ➤ **Conditions:**
  - ○ Entities who are **registered in India.**
  - ○ Entities with **more than 50 employees**.

API
- ➤ The term 'API' stands for '**Application Programming Interface'.**
- ➤ An API is an interface that can be used to program software that interacts with an existing application.
- ➤ In practice, an API is "a set of functions and procedures" that allow one to access and build upon the data and functionality of an existing application.

Open Source API
- ➤ An open source API, also called **public API**, is an application programming interface made publicly available to software developers.
- ➤ Open APIs are published on the internet and shared freely, allowing the owner of a network-accessible service to give universal access to consumers.
- ➤ These are to support businesses with limited capital to invest in digital applications.
- ➤ An overlapping term **web service** is a resource that's made available over the **internet**. A Web service is a software system designed to support interoperable machine-to-machine interaction over a network.

APIs vs Web Services
- ➤ APIs and web services are not mutually exclusive.
- ➤ In fact, one is a subset of the other: **every web service is an API** — since it exposes an application's data and/or functionality — **but not every API is a web service**. This is because the definition of a web service is quite restrictive:
  - ○ **Web services require a network.** While APIs can be online or offline, web services must use a network.
  - ○ **APIs are protocol agnostic**. While APIs can use any protocols or design styles, web services usually use specific protocols.
  - ○ **Web services are not open source generally:** Instead, they tend to offer specific data and/or functionality to specific partners. Thus they are less prone to hacking than API.

- ➤ **Benefits to Organizations and Business Entities.:**
  - ○ They can use the Open API Service to query the Aarogya Setu Application in real-time.
  - ○ They can get the health status of their employees or any other Aarogya Setu User.

Note:

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❍ The Open API Service enables organizations to check the status of Aarogya Setu and integrate it into its various Work from Home features.

➤ **Privacy Issue Addressed:**

❍ The Open API shall only provide the Aarogya Setu status and name of the Aarogya Setu User (strictly, **with User's consent only**).

❍ No other personal data shall be provided through the API.

➤ **Concerns:**

❍ Government has issued guidelines to the employers to ensure that all their employees install this app.

● This violates the right to privacy.

❍ The data-sharing and knowledge-sharing protocol for the Aarogya Setu is **prone to misuse,** considering that India still **doesn't have data protection laws.**

❍ Vulnerable sections like **migrant workers can't afford the smartphone** and the internet.

❍ In May 2020, the government **opened sourced the code** for its contact tracing app Aarogya Setu's Android and iOS versions.

Development of Synthetic Flavonoids

Why in News

Recently, scientists from **Agharkar Research Institute** (ARI), Pune have found the first **synthetic route for producing flavonoids molecules** related to the treatment of tuberculosis and chikungunya.

➤ ARI is an **autonomous institute of the Department of Science and Technology** (DST), Government of India.

Key Points

➤ It is for the **first time that scientists have been able to synthesize the flavonoid molecules** such as rugosa flavonoids, podocare flavone and isoflavone in a lab.

❍ These three molecules have so far been isolated from plants only and are found to **inhibit tuberculosis and chikungunya**.

➤ **Flavonoids:**

❍ Flavonoids are part of the **polyphenol class of phytonutrients (plant chemicals)** found in almost all fruits and vegetables. Along with **carotenoids** (organic pigments), they are **responsible for the vivid colours** in fruits and vegetables.

➤ **Significance of the Research:**

❍ **Availability:** It will ensure their **availability at all seasons** without the dependence on natural timings of the plantations.

❍ **Uniformity:** Inconsistency in natural products can occur in different seasons, places and species. Man-made molecules will have a **uniform structure and medicinal properties** similar to the natural product.

❍ **Less-exploitative:** Acquiring them from labs will **solve the problem of over-exploitation of medicinal plants** which puts an extra burden on the environment.

❍ **Cost-effective:** The development method in labs is **simple and cost-effective** as well.

➤ **Other Possible Use of Flavonoids:**

❍ Flavonoids can **ease the lives of women who face problems in the premenopausal stage** because its chemical structure is similar to the female **hormone 17-beta-estradiol**.

❍ Preliminary indications and computational analysis show the **capacity of these molecules to inhibit Covid-19** by targeting spike protein and proteases (an enzyme that catalyzes proteolysis, the breakdown of proteins).

● Since flavonoids boost-up immunity, a **flavonoid-rich diet is recommended to stay safe from Covid-19**.

▪▪▪

Note:

Environment and Ecology

Highlights

- Oil Spill in Mauritius
- World Solar Technology Summit: ISA
- Fly Ash
- Ganga Rejuvenation Monitoring
- Bioethanol Blending of Petrol
- High Temperature at Death Valley
- Indian Bison (Gaur)

- Wildfires in California
- BIS Draft Standard for Drinking Water
- Early Galaxy Detected by AstroSat
- NDC-Transport Initiative for Asia
- National Clean Air Programme
- Plastic Marine Pollution
- Dragonfly Festival

Oil Spill in Mauritius

Why in News

A japanese bulk-carrier ship MV Wakashio which was carrying fuel oil has split into two parts near **Blue Bay Marine Park** in **south-east Mauritius.**

➢ The ship was already leaking and has caused an oil spill of over 1000 tonnes in the **Indian Ocean.**
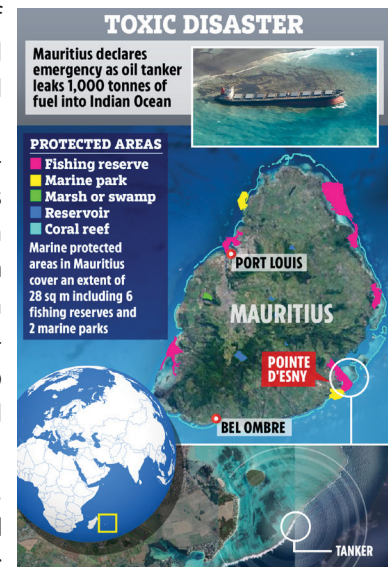
Key Points

➢ The vessel has broken near **Pointe d'esny** in Mauritius and the area has many environmentally sensitive zones.

➢ **Effects:** The oil spill threatens the ecology of the **coastline of Mauritius** and the **marine life in the Indian Ocean**.

  ○ It endangers the already endangered **coral reefs, seagrasses in the shallow waters, mangroves, the fishes and other aquatic fauna.**

  ○ Some key wildlife at risk include: Giant tortoises, endangered green turtle, and the critically endangered **Pink Pigeon (IUCN- Vulnerable**.

➢ **Liability:** Under the **International Convention on Civil Liability for Bunker Oil Pollution**, **2001,** the owners of vessels are responsible for damage caused by oil leaks.

  ○ This convention, also known as **BUNKER convention**, came into force in **2008** and is administered by the **International Maritime Organization (IMO**).

➢ **Blue Bay Marine Park**: It is designated as a **Wetland of International Importance** by **Ramsar Convention.**

  ○ The presence of **coral reefs, mangroves, seagrass meadows**, and **macro algae** make it an ecologically sensitive zone.

Oil Spill

➢ **Cause:** Oil spill has become a major environmental problem, chiefly as a result of **intensified petroleum exploration and production** on continental shelves and the transport of large amounts of oils in vessels.

➢ **Environmental Impacts:**

  ○ Oil on ocean surfaces is harmful to many forms of aquatic life because it **prevents sufficient amounts of sunlight** from penetrating the surface, and it also reduces the **level of dissolved oxygen.**

  ○ Crude oil ruins the insulating and waterproofing properties of feathers and fur of birds, and thus oil-coated birds and marine mammals may die from **hypothermia** (decrease in body temperature to below-normal levels).

  ○ Moreover, **ingested oil** can be toxic

TOXIC DISASTER

Mauritius declares emergency as oil tanker leaks 1,000 tonnes of fuel into Indian Ocean

PROTECTED AREAS
- Fishing reserve
- Marine park
- Marsh or swamp
- Reservoir
- Coral reef

Marine protected areas in Mauritius cover an extent of 28 sq m including 6 fishing reserves and 2 marine parks

PORT LOUIS

MAURITIUS

POINTE D'ESNY

BEL OMBRE

TANKER

Note:

to affected animals, and damage their **habitat and reproductive rate.**

- ○ **Saltwater marshes** and **mangroves** frequently suffer from oil spills.
- ○ Experts say that despite best efforts, generally **less than 10% of oil spilled** in incidents like these is successfully **cleaned up.**

➢ **Economic Impacts:**

- ○ If beaches and populated shorelines are fouled, **tourism** and **commerce** may be severely affected.
- ○ The **power plants and other utilities** that depend on drawing or discharging sea water are severely affected by oil spills.
- ○ Major oil spills are frequently followed by the **immediate suspension of commercial fishing.**

➢ **Cleanup of Oil Spill:**

- ○ **Containment Booms:** Floating barriers, called booms are used to restrict the spread of oil and to allow for its recovery, removal, or dispersal.
- ○ **Skimmers:** They are devices used for physically separating spilled oil from the water's surface.
- ○ **Sorbents:** Various sorbents (e.g., straw, volcanic ash, and shavings of polyester-derived plastic) that absorb the oil from the water are used.
- ○ **Dispersing agents**:These are chemicals that contain surfactants, or compounds that act to break liquid substances such as oil into small droplets. They accelerate its natural dispersion into the sea.
- ○ **Biological agents:** Nutrients, enzymes, or microorganisms such as *Alcanivorax* bacteria or *Methylocella silvestris* that increase the rate at which natural biodegradation of oil occurs are added.

➢ **Other Incidents of Oil Spills:**

- ○ Recently, **Russia** declared a state of emergency in its **Krasnoyarsk Region** after a **power plant fuel leaked** causing 20,000 tonnes of diesel oil to escape into the **Ambarnaya River.**
- ○ In 2010, the **Deep Water Horizon incident** off the **Gulf of Mexico** saw nearly 400,000 tonnes of oil spill, resulting in the death of thousands of species ranging from plankton to dolphins
- ○ In 1978, a large crude oil carrier ran aground off the coast of **Brittany, France,** which leaked nearly 70 million gallons of oil into the sea, killing millions of invertebrates and an estimated 20,000 birds.

World Solar Technology Summit: ISA

Why in News

The **International Solar Alliance (ISA)** will organise the **First World Solar Technology Summit** on **8th Sept, 2020** on a virtual platform.

➢ The **objective** of the event is to bring the spotlight on **state-of-the-art technologies** as well as **next-generation technologies** which will provide impetus to the efforts towards harnessing **solar energy** more efficiently.

Key Points

➢ **Key Participants: With** the **Prime Minister of India** delivering the inaugural address of the First World Solar Technology Summit, the event will have **Ministers from member countries from across all ISA regions, Scientists and CEOs of top global corporations**.

➢ **Sessions**: The event will hold **four** technical sessions with following themes:

- ○ Vision 2030 & Beyond
- ○ **Towards a Decarbonised Grid**
- ○ **Disruptive Solar Technologies**
- ○ **Solar Beyond the Power Sector**.

➢ **I JOSE:**

- ○ ISA would also launch the **ISA Journal on Solar Energy (I JOSE)** that would help authors from across the globe to publish their articles on solar energy, during the event.
- ○ The articles in this journal would be reviewed by global experts and will reach the Member countries through ISA's vast network of **NFPs (National Focal points)** and **STAR (Solar Technology and Application Resource centers)** centers.

➢ **India's Solar Energy Initiatives:**

- ○ Solar energy has taken a central place in India's **National Action Plan on Climate Change** with the **National Solar Mission** as **one of the key Missions.**
  - National Solar Mission (NSM) was launched on 11th January, 2010.
  - Its objective is to establish India as a global leader in solar energy by creating the policy conditions for solar technology diffusion across the country as quickly as possible.

Note:

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- It targets installing **100 GW grid-connected solar power plants by the year 2022.** This is **in line with India's Intended Nationally Determined Contributions (INDCs) target** to achieve about 40% cumulative electric power installed capacity from non-fossil fuel based energy resources and to reduce the emission intensity of its GDP by 33 to 35% from 2005 level by 2030.
  - In order to achieve the above target, the Government of India has launched various **schemes** to encourage generation of solar power in the country like **Solar Park Scheme**, Canal bank & Canal top Scheme, Bundling Scheme, **Grid Connected Solar Rooftop Scheme** etc.
  - **Solar power capacity has increased by more than 11 times in the last five years** from 2.6 GW in March, 2014 to 30 GW in July, 2019.
  - Recently, a **750 megawatt (MW) solar project** has been inaugurated in **Rewa, Madhya Pradesh.**
  - India has an ambitious cross-border power grid plan—**'One Sun One World One Grid'**— that seeks to transfer solar power generated in one region to feed the electricity demands of others.

International Solar Alliance
- The **launch** of the International Solar Alliance (ISA) was announced by the **Prime Minister of India** (Narendra Modi) and former **President of France** (Francois Hollande) on **30th November 2015**, at the **21st session of United Nations Climate Change Conference of the Parties (COP-21)** in Paris, France.
  - It was conceived as a coalition of solar-resource-rich countries (which lie either completely or partly between the Tropic of Cancer and the Tropic of Capricorn) to address their special energy needs.
- **67 countries** have signed and ratified the ISA framework agreement.
- The **Assembly of the ISA is the apex decision-making body** which comprises representatives from each Member Country.
- It **aims** at lowering the cost of technology and finance and thereby facilitate deployment of over 1,000 GW of solar energy and mobilize more than USD 1,000 billion into solar power by 2030 in Member countries.

- Solar is a key source of affordable and reliable energy, thus it could play a significant role in achieving the **universal energy access goal (SDG 7).**
- The Government of India has allotted 5 acres of land to the ISA in **National Institute of Solar Energy (NISE)** campus, **Gurugram**.

Fly Ash

Why in News

Recently, **National Thermal Power Corporation (NTPC)** has developed an infrastructure to transport **fly ash** from power plants in bulk to cement plants, at a cheaper cost.
- It will pave the way for **efficient and environment friendly** transportation.
- This development is in line with NTPC's commitment towards **100% utilization of fly ash from power plants.** At present, 63% of the fly ash is being utilised in India.

Key Points

- **Fly Ash:**
  - **Definition:** It is a **byproduct from burning of coal** in electric power generating plants.
    - It is **called fly ash because** it is transported from the combustion chamber by exhaust gases.
    - It is collected from the exhaust gases by **electrostatic precipitators** or bag filters.
  - **Composition:** Fly ash includes substantial amounts of silicon dioxide (SiO_2), aluminium oxide (Al_2O_3), ferric oxide (Fe_2O_3) and calcium oxide (CaO).
  - Properties:
    - **Resemble Portland cement** but is chemically different.
      - Portland cement is a binding material in the form of a finely ground powder, that is manufactured by burning and grinding a mixture of **limestone and clay.**
      - Its **chemical composition** includes calcium silicates, calcium aluminate and calcium aluminoferrite.
    - Exhibit **cementitious** properties.
      - A cementitious material is one that hardens when mixed with water.

Note:

- ❍ **Uses:** It is used in concrete and cement products, road base, metal recovery, and mineral filler among others.
- ❍ **Harmful Effects:** Fly ash particles are toxic air pollutants. They can trigger heart disease, cancer, respiratory diseases and stroke.
  - When combined with water they cause **leaching of heavy metals in ground water**.
 - It also **pollutes the soil**, and affects the root development system of trees.

> **NTPC**
> ➢ NTPC Ltd. is a **central Public Sector Undertaking (PSU)** under the **Ministry of Power.**
> ➢ **Aim:** To provide reliable power and related solutions in an economical, efficient and environment-friendly manner, driven by innovation and agility.
> ➢ It became a **Maratna company** in May 2010.
> ➢ It is located in **New Delhi.**

Ganga Rejuvenation Monitoring

Why in News

Recently, the **National Green Tribunal (NGT)** has observed that the pollutants are still being discharged into the river Ganga, despite several directions of various courts.

➢ The states of **Uttar Pradesh, Uttarakhand, Bihar and West Bengal** have failed in preventing discharge of untreated effluents in violation of provisions of the **Water (Prevention and Control of Pollution) Act, 1974.**

THE GANGA RIVER MAP
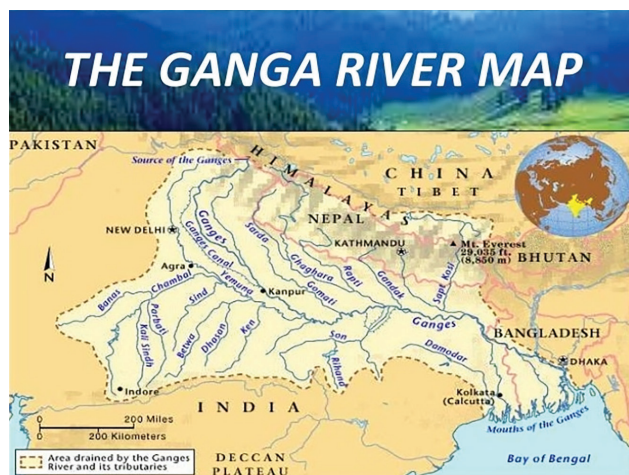
Key Points

➢ **Constitutional Right:** Pollution-free environment is the **constitutional right** of every citizen and **constitutional obligation** of States. However, the states of Uttar Pradesh, Uttarakhand, Bihar and West Bengal are certainly failing in providing pollution free Ganga.

➢ **Monitoring:** The NGT has directed the above states to **periodically monitor** the rejuvenation of the Ganga.

➢ **Joint Meetings:** It has also called for periodic joint meetings of the above states to consider vital issues like **pooling of human resources** and **sharing best practices** for rejuvenation of Ganga.

  - ❍ The meetings shall be focussed on **preventing discharge of sewage** and other pollutants in Ganga directly or through its tributaries or drains connected thereto.

Initiatives Taken to Clean Ganga

➢ **Ganga Action Plan:** It was the **first River Action Plan** that was taken up by the **Ministry of Environment, Forest and Climate Change in 1985**, to improve the water quality by the interception, diversion, and treatment of domestic sewage.

  - ❍ The **National River Conservation Plan** is an extension to the Ganga Action Plan. It aims at cleaning the Ganga river under Ganga Action Plan phase-2.

➢ **National River Ganga Basin Authority (NRGBA):** It was formed by the Government of India in the year 2009 under Section-3 of the Environment Protection Act, 1986.

  - ❍ It declared the Ganga as the **'National River'** of India.

➢ **Namami Gange Programme:** It is an **Integrated Conservation Mission**, approved as a 'Flagship Programme' by the Union Government in June 2014 to accomplish the twin objectives of **effective abatement of pollution** and **conservation and rejuvenation of National River Ganga.**

  - ❍ It is being operated under the **Ministry of Jal Shakti**.

➢ **Clean Ganga Fund:** In 2014, it was formed for cleaning up of the Ganga, setting up of waste treatment plants, and conservation of biotic diversity of the river.

➢ **Bhuvan-Ganga Web App:** It ensures involvement of the public in monitoring of pollution entering into the river Ganga.

➢ **Ban on Waste Disposal:** In 2017, the **NGT** banned the disposal of any waste in the Ganga.

Note:

drishti

Bioethanol Blending of Petrol

Why in News

The government has set targets of **10%** bioethanol blending of petrol by **2022** and to raise it to **20%** by **2030** under the **Ethanol Blended Programme (EBP).**

➤ The EBP was launched in line with the **National Biofuels Policy, 2018**.

Key Points

➤ Many countries, including India, have adopted **ethanol blending in petrol** in order to **reduce vehicle exhaust emissions** and also to **reduce the import burden on account of crude petroleum**.

○ Currently, the bioethanol blending in petrol stands at **5%.**

➤ **Reasons for Ethanol Blending:**

○ It is estimated that a **5% blending** can result in replacement of around 1.8 million Barrels of crude oil.

○ As the ethanol molecule contains oxygen, it **allows the engine to more completely combust the fuel**, resulting in fewer emissions and thereby reducing the occurrence of environmental pollution.

○ The **renewable** ethanol content, which is a by-product of the sugar industry, is expected to result in a net reduction in the **emission of carbon dioxide, carbon monoxide (CO) and hydrocarbons (HC).**

➤ **Background:**

○ The **Ethanol Blended Petrol (EBP)** programme was launched in January, 2003 by the Ministry of Petroleum & Natural Gas (MoP&NG) .

● The EBP seeks to achieve blending of **Ethanol with Petrol** with a view to **reducing pollution, conserving foreign exchange** and **increasing value addition in the sugar industry** enabling them to clear cane price arrears of farmers.

● The **Oil Marketing Companies (OMCs)** are to procure ethanol from domestic sources at remunerative **prices fixed** by the government.

● The Central Government recently **extended the ambit of the programme** to extract the fuel from surplus quantities of food grains such as maize, jawar, bajra fruit and vegetable waste which was limited only to sugarcane previously.

○ Recently, the Cabinet Committee on Economic Affairs (CCEA) has approved **Pradhan Mantri JI-VAN (Jaiv Indhan- Vatavaran Anukool fasal awashesh Nivaran) Yojana** to **create an ecosystem for setting up commercial projects** and boost to **Research and Development in 2G Ethanol sector.**

○ India celebrated **World Biofuel Day** on 10th August 2020 with the **theme** "*Biofuels towards Atmanirbhar Bharat*".

➤ **Challenges in Ethanol Blending:**

○ **Less Production**: Currently, domestic production of bioethanol is not sufficient to meet the demand for bioethanol for blending with petrol at Indian OMCs.

○ **Water Footprint:** While India has become one of the top producers of ethanol but it lags top producers, the USA and Brazil, by a huge margin and remains **inefficient** in terms of water usage.

○ **Limited Sugarcane Availability:** Sugarcane is another limited resource that affects the ethanol blending in the country.

○ **Lack of Alternatives:** Producing ethanol from crop residue can be a good alternative but the **annual capacity of biorefinery is still not enough** to meet the 5% petrol-ethanol blending requirement.

● Other biofuels such as **Jatropha** have often proven to be **commercially unviable.**

○ **Handling issues:** Ethanol being a highly flammable liquid marks obligatory **safety and risk** assessment measures during all phases of production, storage and transportation, thus increasing the cost and risk factor.

High Temperature at Death Valley

Why in News

Recently, **Death Valley** (USA) registered a temperature of 54.4°C which, once verified, could be the **highest temperature in more than a century**.

➤ The temperature was recorded at the **USA National Weather Service's automated weather station at Furnace Creek** on 16th August 2020.

➤ The Death Valley in **southeastern California is the lowest point in the North American continent**, and is a National Park. It is also the **hottest and driest** part of the continent.

Note:

What Is Death Valley?

Key Points

➢ The temperature has been **termed as preliminary and not final as it awaits verification**.

➢ According to the **World Meteorological Organization** (WMO), Death Valley's **all-time record high is 56.7°C taken on 10th July 1913** at Greenland Ranch.

   ❍ It still stands as the **hottest ever recorded on the planet's surface**.

   ❍ However, since the temperature-recording mechanisms a century ago were not as advanced, many have doubted if that reading was reliable.

➢ **Cause:**

   ❍ The high temperature is a result of a '**heat dome**' that is smothering the west coast of the USA.

   ● **Heat Domes:** High-pressure circulation traps hot ocean air like a lid or a cap trapping heat at the surface and favouring the formation of a **heat wave**.

➢ **Effects of Extreme Heat:**

   ❍ According to the **World Health Organization** (WHO), extreme heat can **exacerbate pre-existing health conditions**, including respiratory diseases, heart conditions and kidney disorders.

   ❍ It can also have a **severe impact on agriculture and forests**.

   ● It either causes **vegetables to wilt and die** or **encourage the spread of plant diseases**.

   ● It causes **wildfires** which lead to **forest cover reduction and death of fauna**.

   ❍ It **affects infrastructure too** by straining power grids and causing blackouts. It can ground planes, melt roads and cause the inside of vehicles to overheat to dangerous levels.

Indian Bison (Gaur)

Why in News

Recently, a case of poaching of Indian Bison was discovered using a sniffer dog in West Bengal.

Key Points

➢ **Indian Bison or Gaur (*Bos gaurus*)**

   ❍ **Location:** Native to South and Southeast Asia.

   ● In India, they are found in Nagarhole, **Bandipur**, Masinagudi National Parks and BR Hills.

   ❍ **Conservation Status:**

   ● **Vulnerable** in **IUCN Red List.**

   ● Included in the **Schedule I** of the **Wild Life Protection Act, 1972**

   ❍ **Important Facts:**

   ● It is the **tallest species of wild cattle** found in India and **largest extant bovine.**

   ● Recently, the **first population estimation exercise of the Indian Gaur (Bison)** was carried out in the **Nilgiris Forest Division, Tamil Nadu.**

   ● Recently, the conservation breeding of Gaur was started at Mysuru zoo under the conservation breeding programme of the **Central Zoo Authority** (CZA).

   ❍ **Threats:**

   ● **Food Scarcity:** Due to the destruction in the grasslands, planting of commercially important trees, invasive plant species and indiscriminate grazing of domestic animals.

Note:

- **Poaching:** For their commercial value as well as due to the high demand of gaur meat.
- **Habitat Loss:** Due to deforestation and commercial plantations
- **Human-Animal Conflict:** Due to living in proximity with human habitations.

Wildfires in California

Why in News

California (USA) is facing **sprawling wildfires** destroying more than 4,00,000 acres of forests in Northern and Central California.

➢ The spark for many of these fires come from around 11,000 **lightning strikes** California has been hit by.

Key Points

➢ Historically, California has had many wildfires, which have increased manifold in recent times.
   ○ The 10 largest fires have occurred since 2000, including the **2018 Mendocino Complex Fire**, the largest in history of the USA.
   ○ The frequency of western USA wildfires has **increased by 400%** since 1970.

➢ **California has two distinct fire seasons:**
   ○ **First or Western Fire Season:** From June through September
     - Due to **warmer and drier weather.**
     - Fires are more inland and in **higher-elevation forests.**
   ○ **Second Fire Season:** From October through April
     - Due to **Santa Ana Winds.**
     - Burn closer to **urban areas.**
     - **Three times faster** than first season fires.
     - Responsible for 80% of the economic losses over two decades.

➢ **Reasons for California's Wildfires:**
   ○ **Climate:** California, like much of the West, gets most of its moisture in the fall and winter. Its vegetation then stays dry throughout the summer because of a **lack of rainfall and warmer temperatures**, which ultimately serves as ignition for fires.
   ○ **Human intervention:** The spark for many fires arise due to human-made causes such as fallen power lines, accidents etc.

Santa Ana Winds

➢ The winds' name derives its name from the Santa Ana canyon in Orange County, California.

➢ Santa Anas are dry, warm (often hot) winds that blow **westward through Southern California toward the coast.**

➢ They're usually **seasonal**, and typically occur between October and March and peak in December.

➢ They originate when **high pressure systems** form over the high-elevation deserts of the **Great Basin** between the Sierra Nevadas and the Rocky Mountains.

➢ As they flow downwards and cross desserts, they become **very dry, warm, and gain speed.** The lack of humidity in Santa Ana winds dries out vegetation, making it better fuel for a fire.

➢ The wind also **fan the flames** and helps spread them.
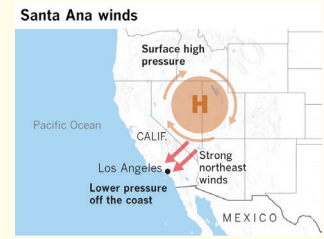
   ○ **Suppressing Fires:** Owing to suppression of natural fires artificially for a long time, which would consume the dry inflammable materials in the forest, a lot of **dry material has accumulated** causing even more fires.
   ○ **Santa Ana Winds:** Santa Ana winds **dry out vegetation** and also move **embers** around, spreading fires.

➢ **Impact:**
   ○ **Economic loss** from destruction of life and property.
   ○ **Air pollution** by small particulate matter and also acids, organic chemicals, and metals along with dust and allergens.
   ○ **Land degradation** as high temperatures consume all nutrients and vegetation from a land, leaving it barren and infertile.
   ○ **Loss of biodiversity.**

BIS Draft Standard for Drinking Water

Why in News

Recently, the **Bureau of Indian Standards (BIS)** has prepared a draft - **'Drinking water supply quality management system — requirements for piped drinking water supply service'.**

Note:

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Key Points

➢ **Draft Standard:**

  ❍ It outlines the **process of water supply,** from raw water sources to household taps.

  ❍ The draft standard is expected to make the process of piped **water supply more uniform, especially in rural and underdeveloped areas**.

  ❍ The draft has been developed keeping in view the **Centre's Jal Jeevan Mission.**

  ❍ It has been prepared by the **BIS's Public Drinking Water Supply Services Sectional Committee.**

Jal Jeevan Mission

➢ Under this, the Union government envisages **providing water supply to every household by 2024.**

➢ The Mission is based on **various water conservation efforts** like point recharge, desilting of minor irrigation tanks, use of greywater for agriculture and source sustainability.

➢ The Mission is based on a **community approach to water** and includes extensive Information, Education, and Communication.

➢ The Mission will **converge with other Central and State Government Schemes**.

➢ The **Jal Shakti Ministry** is the nodal ministry for the implementation of the mission.

➢ **Features of the Draft:**

  ❍ It outlines the **requirements for a water supplier or a water utility** on how they should establish, operate, maintain and improve their piped drinking water supply service.

  ❍ **Guidelines for top management of the water supplier/utility** which includes:

    ● Accountability and customer focus.

    ● Establishing a quality policy for their service.

    ● Monitoring the quality of water released to people.

    ● Conducting a water audit.

  ❍ It sets the **Indian Standard (IS) 10500** for the treated water for drinking.

    ● The IS 10500 outlines the **acceptable limit of heavy metals** such as arsenic, **pH value** of water, **turbidity, the total dissolved solids** in it, and the **colour and odour.**

  ❍ Adoption of the concept of the **District Metering Area (DMA)** where possible.

    ● DMA is a concept for **controlling leakages in the water network**, which is essentially divided into a number of sectors, called the DMAs, and where flow meters are installed to detect leaks.

  ❍ The water supplier may provide **bulk water meters** in the water distribution system to ensure water audit.

  ❍ The draft also mentions that **water should be sampled at the treatment plant every four hours** against quality parameters.

Early Galaxy Detected by AstroSat

Why in News

A team of Scientists from the **Inter University Centre for Astronomy and Astrophysics (IUCAA)** has discovered one of the earliest galaxies called **AUDFs01** using **AstroSat**.

➢ The galaxy is located in the **Hubble eXtreme Deep Field (XDF)**, **9.3 billion light-years** away from Earth.

➢ The team comprises scientists from **India, Switzerland, France, USA, Japan and Netherlands.**

Hubble Extreme Deep Field

➢ It is a portion of space that contains approximately 5,500 galaxies, the oldest of which are seen as they were 13.2 billion years ago, recorded by the Hubble Space Telescope for over 10 years.

Hubble Space Telescope

➢ The HST was launched into **Low Earth orbit** in 1990 and remains in operation. It is one of the largest and most versatile space telescopes till date.

Key Points

➢ The galaxy was discovered using **UltraViolet Imaging Telescope (UVIT)** on Astrosat. AstroSat detected **Extreme Ultraviolet light** from the galaxy.

➢ Earlier, **NASA's Hubble Space Telescope (HST),** which is **significantly larger than UVIT**, did not detect any UV emission from this galaxy because **it is too faint.**

➢ AstroSat/UVIT was able to achieve this unique feat because the **background noise in the UVIT detector is much less** than the ones on HST.

➢ These observations lasted for more than **28 hours in October 2016,** but it took nearly **two years since then** to **carefully analyse the data** to ascertain that the emission is indeed from the galaxy.

AstroSat

➢ It is a **multi-wavelength astronomy mission** on an **IRS-class** (Indian Remote Sensing-Class) satellite in a 650-km, near-equatorial orbit.

➢ It was launched by the Indian launch vehicle **PSLV** from **Satish Dhawan Space Centre, Sriharikota** on **28ᵗʰ September, 2015 by ISRO.**

➢ It is the **first dedicated Indian astronomy mission** aimed at studying celestial sources in X-ray, optical and UV spectral bands simultaneously with its **five unique X-ray and ultraviolet telescopes working in tandem.**

➢ One of the unique features of AstroSat mission is that it enables the **simultaneous multi-wavelength observations of various astronomical objects** with a single satellite.

➢ The **Ground Command and Control Centre** for AstroSat is located at **ISRO** Telemetry, Tracking and Command Network (**ISTRAC**), Bangalore, India.

NDC-Transport Initiative for Asia

Why in News

Recently, the **NITI Aayog** launched the **"India Component"** of the Nationally Determined Contributions (NDC)–Transport Initiative for Asia (TIA).

Key Points

➢ **NDC–TIA:**

○ It is a **regional initiative that aims** to promote a comprehensive approach to decarbonize transport in **India, Vietnam, and China.**

● In each of the partner countries, the NDC-TIA supports in making their sectoral contributions to the achievement of the **NDCs of the Paris Agreement**.

● The NDC-TIA programme has a duration of 4 years.

➢ **Implementation:**

○ It is a **joint programme**, supported by the **International Climate Initiative (IKI)** of the German Ministry for the Environment, **Nature Conservation and Nuclear Safety (BMU).**

○ It is **implemented by a consortium of seven organisations.**

○ The **India component** is implemented by six consortium organisations. On behalf of the Government of India, NITI Aayog, is the implementing partner.

➢ **Focus:** The NDC–TIA India Component will focus on:

○ Strengthening GreenHouse Gas (GHG) and transport modelling capacities.

○ Providing technical support on GHG emission reduction measures.

○ Financing climate actions in transport.

○ Offering policy recommendations on electric vehicle (EV) demand and supply policies etc.

➢ **Benefit:**

○ The programme will help to **promote electric mobility** in India.

○ It will also support the development of policies and regulations to **promote electric vehicle charging infrastructure.**

➢ **India's Transport Sector:**

○ India has the **world's second-largest road network**, which contributes to maximum Greenhouse Gas (GHG) emissions through all means of transportation.

○ With increasing urbanisation, the fleet size i.e. the **number of sales of vehicles is increasing rapidly**. It is projected that the **total number of vehicles will be doubled by 2030.**

○ Therefore, the transition to a decarbonisation path for the transport sector in India is essential to achieving the goals of the Paris Climate Agreement for 2050.

National Clean Air Programme

The **National Green Tribunal (NGT)** has directed the **Ministry of Environment, Forest and Climate Change (MoEFCC)** to modify the **National Clean Air Programme (NCAP)** which proposes 20-30 % reduction of air pollution by 2024.

Key Points

➢ **NGT's View:**

❍ The enforcement of the '**Sustainable Develop-ment' principle** and '**Public Trust Doctrine'** require stern measures to be adopted to give effect to the mandate of international obligations related to environmental quality, for which the **Environment (Protection) Act, 1986** was enacted.

● **Public Trust Doctrine:** It states that the sovereign, or state, holds the trust of people to manage the designated resources for the benefit of the people.

❍ The **Right to Clean Air** stood recognized as part of Right to Life and failure to address air pollution is a denial of Right to Life under **Article 21.**

➢ **NGT's Directions:**

❍ The **timeline** to reduce air pollution by 20-30% by 2024 needs to be **reduced**.

❍ The **target** of reduction needs to be **increased**.

❍ It suggested the Ministry to review and action in terms of **shift to e-vehicles and CNG vehicles**, intensifying public transport system, mechanical cleaning of roads, enhancement of public parking facilities, improvement in fuel quality, and traffic management.

❍ It directed the state pollution control boards to ensure the **assessment and installation** of the requisite number of real-time online continuous **Ambient Air Quality Monitoring Systems within six months**.

❍ It also directed an expert team of the **Central Pollution Control Board** to **design a model** for source apportionment and carrying capacity assessment within two months which may be replicated for all the non-attainment cities.

● **Source Apportionment:** It is the practice of deriving information about pollution sources and the amount they contribute to ambient air pollution levels.

● **Carrying Capacity:** The concept of "carrying capacity" addresses the question as to how many people can be permitted into any area without the risk of degrading the environment there.

Plastic Marine Pollution

Why in News

A study published in 'Nature Communications' has estimated the **amount of microplastic pollution in the Atlantic Ocean** and put it at **11.6-21.1 million tonnes.**

➢ There has been an uncertainty about the magnitude of **plastic pollution** in marine environments.

Key Points

➢ **Estimated Pollution:**

❍ Measurements of the **top 200 meters** of the Atlantic found 11.6 - 21.1 million tonnes of microscopic particles.

❍ Scientists studied pollution of the Atlantic Ocean caused by **three types of plastics** - **polyethylene, polypropylene**, and **polystyrene** - which were suspended in the top 200 metres of the ocean.

● These three types of plastic are **most commonly used for packaging.**

❍ Based on plastic waste generation trends from 1950-2015 and considering that the Atlantic Ocean has received 0.3-0.8% of the global plastic waste for 65 years, the Atlantic waters could hold **17-47 million tonnes of plastic waste.**

➢ **Conclusion:**

❍ **Smaller plastic particles are a hazard**, as it is easier for them to sink to greater ocean depths and some marine species such as zooplanktons show preferential ingestion of smaller particles, making them easier to enter the food chain.

❍ Considering that plastics of other sizes and polymer types will be found in the deeper ocean and in the sediments, the study indicates that both inputs and **stocks of ocean plastics are much higher than determined.**

❍ It is thus critical to **assess across all size categories and polymer groups** to determine the fate and danger of plastic contamination.

Plastic Pollution

➢ **Issue:**

❍ **Over 300 million tons of plastic** are produced every year, **half of which is used to design single-use items** such as shopping bags, cups and straws.

Note:

- According to the **International Union for Conservation of Nature (IUCN),** at least **8 million tons of plastic end up in the oceans every year.**

➤ **Sources of Marine Plastic:**
- The main sources of marine plastic are **land-based,** from urban and storm runoff, **sewer overflows,** beach visitors, inadequate waste disposal and management, **industrial activities**, construction and illegal dumping.
- **Ocean-based plastic** originates mainly from the **fishing industry, nautical activities** and **aquaculture.**
- Under the influence of **solar UV radiation**, wind, currents and other natural factors, plastic fragments into small particles, termed **microplastics (particles smaller than 5 mm)** or **nanoplastics (particles smaller than 100 nm).**

➤ **Impact of Plastic Pollution:** Plastic can take hundreds to thousands of years to decompose depending on the type of plastic and where it has been dumped.
- On Marine Environment:

- The most visible and disturbing impacts of marine plastics are the **ingestion, suffocation and entanglement of hundreds of marine species.**

- **On Food and Health:**
  - Toxic contaminants accumulate on the surface of plastic materials as a result of prolonged exposure to seawater. When marine organisms ingest plastic debris, these contaminants enter their digestive systems, and overtime accumulate in the food web.

- **Impacts on Climate Change:**
  - Plastic, which is a petroleum product, also contributes to **global warming.** If plastic waste is incinerated, it releases carbon dioxide into the atmosphere, thereby increasing carbon emissions.

- **Impacts on Tourism:**
  - Plastic waste damages the aesthetic value of tourist destinations, leading to decreased tourism-related incomes and **major economic costs** related to the cleaning and maintenance of the sites.

India's Plastic Waste Crisis

➤ Single-use plastics or disposable plastics, are commonly used for packaging. Nearly half of the plastics produced in India are single use plastics.

➤ Most cities and towns have not implemented the provisions of the **Plastic Waste Management Rules of 2016 or PWR.**
- According to PWR, plastic manufacturers and retail establishments that use plastics are legally bound to collect back plastic waste. This is referred to as **'extended producers responsibility'.**
- The rules also mandate the responsibilities of local bodies, gram panchayats, waste generators and retailers to manage waste.
- This includes collecting and segregating recyclable plastic, non-recyclable plastic and other waste separately for processing.
- But most cities and towns have not implemented these provisions due to the lack of a disciplined system of segregation and recycling.

➤ India **banned imports of solid plastic waste only in 2019.**

➤ The government has set an ambitious **target of eliminating single-use plastics by 2022.**

Dragonfly Festival

Why in News

The first-ever **State Dragonfly Festival**, also known as the **Thumbimahotsavam** 2020 will be organized in Kerala jointly by the **World Wide Fund for Nature (WWF)**-India State unit and the **Society for Odonate Studies (SOS).**

Society for Odonate Studies

➤ It is a non-political, non-profit organisation formed to impart knowledge to the public on the insect order of **Odonata** (which comprises **dragonflies** and **damselflies**) and to conduct scientific studies, with the objective of conservation of the species and their habitats.

Key Points

➤ It will be a part of the **National Dragonfly Festival** being organised by the WWF India, **Bombay Natural History Society** and the Indian Dragonfly Society.

- ○ The **third** edition of the National Dragonfly Festival was organized online in **August, 2020.**
- ➤ It aims to build **awareness** about the importance of **dragonflies** and **damselflies** and the need to **conserve** them.
  - ○ Dragonflies act as important bio-indicators of the ecological health of an area.
- ➤ The festival will consist of training resource persons, webinars, and competitions.
- ➤ The festival will also provide an opportunity to people to undertake **citizen science projects** in their backyards during **Covid-19** restrictions.
- ➤ Some specific target groups for this festival include zoology teachers, members of biodiversity management committees, eco-clubs, forest department, people from ecotourism activities, etc.

■■■

Note:

History

Highlights

- Marthoman Jacobite Syrian Cathedral Church
- Mahatma Ayyankali
- Parkash Purab

Marthoman Jacobite Syrian Cathedral Church

Why in News

Recently, the Kerala government has taken control of the **Marthoman Jacobite Syrian Cathedral Church at Mulanthuruthy** in Ernakulam district, **Kerala.**

Key Points

➢ **Malankara Church:** It has been in the focus of a **dispute between Jacobite and Orthodox factions of the Malankara church**, a prominent **non-Catholic Christian community**.

  ○ The church **first split** into the Jacobite and Orthodox groups in 1912. However, the two Churches reunified in 1959 but the truce lasted only until 1972-73.

  ○ Since then, the two factions have been engaged in a battle over ownership of churches and their wealth.

➢ **Management Shift:** The church has been **managed by the Jacobite faction**, but as per a 2017 Supreme Court (SC) verdict, its **ownership went to the rival Orthodox faction.**

  ○ The SC had upheld the validity of the **1934 constitution of the Malankara Orthodox Syrian Church** to govern the *parishes* (administration) under the church.

  ○ However, the Orthodox faction was still denied access to the church, therefore they appealed in the Kerala High Court, which directed the Kerala government to take over the Church and hand it over to Orthodox faction.

➢ **Kerala's Church Groups:** The Christian population of Kerala comprises **Catholic, Jacobite Syrian, Orthodox Syrian, Mar Thoma, Church of South India, Dalit Christians and Pentecostal Churches**.

  ○ The Catholics form 61% of Kerala's Christian population.

  ○ The Malankara Church constitutes 15.9% of the Christian population.

➢ **Mulanthuruthy Church:** The Marthoman Jacobite Syrian Cathedral Church at Mulanthuruthy was **established in 1200 AD**.

  ○ The Church is a fine example of **Gothic architecture.**

  ○ The carvings, sculptures, symbolic icons and wall paintings, are a **blend of Indian, West-Asian and European architecture.**

Gothic Architecture

➢ It is a **European style of architecture** popular in the 12th-16th century.

➢ **Origin:** This architecture has its roots in **France and England.**

➢ **Features:** Pointed arches, ribbed vaults and flying buttresses.

➢ The Britishers merged some **Indian features** of architecture to the Gothic architecture, which resulted in the **Indo-Gothic style of architecture.**

  ○ **Examples of Indo-Gothic style of architecture:** Madras High Court, Victoria Memorial, The Chhatrapati Shivaji Maharaj Terminus (previously Victoria Terminus) etc.

Mahatma Ayyankali

Why in News

The Prime Minister of India paid tribute to **social reformer Mahatma Ayyankali** on his 157th birth anniversary.

Note:

Key Points

➢ **Ayyankali (1863-1914),** born in **Kerala**, was a **leader of the lower castes and Dalits.** With his efforts, Dalits got the freedom to walk on public roads, and Dalit children were allowed to join schools.

➢ He formed **Sadhu Jana Paripalana Sangham (SJPS)** to work for low castes.

➢ **Efforts to organise the "depressed classes"** and particularly the untouchable castes predated the nationalist movement, having begun in the **second half of the nineteenth century.**

  ○ This was an initiative taken from both ends of the caste spectrum – by upper caste progressive reformers as well as by members of the lower castes such as **Mahatma Jotiba Phule** and **Babasaheb Ambedkar** in **western India, Ayyankali, Sri Narayana Guru, Iyothee Das** and **Periyar (E.V. Ramaswamy Naickar)** in the **South.**

Parkash Purab

Why in News

The Prime Minister of India greeted the people on the occasion of the **Parkash Purab Utsav of the holy book Guru Granth Sahib** which was celebrated on **19ᵗʰ Aug 2020.**

Key Points

➢ The first Prakash Purab Utsav marked the **installation of Guru Granth Sahib in Harmandir Sahib,** also **known as the Golden temple**, in **1604.**

➢ Guru Granth Sahib is the **sacred scripture of Sikhism (religion)**. It is a **collection of nearly 6,000 hymns of the Sikh Gurus (religious leaders) and various early and medieval saints of different religions and castes.**

➢ It is the central object of worship in all gurdwaras and is accorded the reverence paid to **a living Guru.**

➢ The **first version of the book was compiled by the 5ᵗʰ Sikh Guru Arjan at Amritsar in 1604 CE**. He included his own hymns and those of his predecessors, **Guru Nanak, Guru Angad, Guru Amar Das, and Guru Ram Das,** and a selection of devotional songs of both Hindu and Islamic saints (notably the poet Kabir).

➢ In **1704 CE,** the **10ᵗʰ and last Guru, Gobind Singh,** added the hymns of his predecessor, **Guru Tegh Bahadur** (the **6ᵗʰ Guru Hargobind, 7ᵗʰ Guru Har Rai, and 8ᵗʰ Guru Hari Krishen did not write hymns**), and enjoined that after his own death the Granth would take the place of a Guru.

➢ The **language is mostly Punjabi or Hindi,** interspersed with Marathi, Persian, and Arabic words.

➢ After the death of Guru Gobind Singh, his hymns and other writings were compiled into a book known as the **Dasam Granth.**

■■■

Note:

Geography

Highlights

- *Landslide in Kodagu*
- *Hurricane Laura*
- *Shetrunji and Bhadar Dams of Gujarat*

Landslide in Kodagu

Why in News

Recently, due to heavy rain, numbers of landslides occurred in many parts of India.

Key Points

➢ **Landslides:**
- ❍ A landslide is defined as the **movement of a mass of rock, debris, or earth down a slope.**
- ❍ They are a type of **mass wasting**, which denotes any downward movement of soil and rock under the direct influence of gravity.
- ❍ The term landslide encompasses **five modes of slope movement: falls, topples, slides, spreads, and flows.**

➢ **Causes:**
- ❍ Slope movement occurs when **forces acting downward (mainly due to gravity) exceed the strength of the earth materials** that compose the slope.
- ❍ Landslides are caused due to **three major factors: geology, morphology, and human activity.**
  - **Geology** refers to characteristics of the material. The earth or rock might be weak or fractured, or different layers may have different strengths and stiffness.
  - **Morphology** refers to the structure of the land. For example, slopes that lose their vegetation to fire or drought are more vulnerable to landslides.
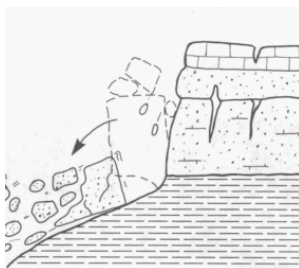
- **Human activity** which include agriculture and construction increase the risk of a landslide.

➢ **Region:**
- ❍ Continent-wise, **Asia suffers the maximum damages/losses** due to landslides and within that, South-Asian nations are the worst sufferers **including India** which is one of the worst affected by landslides.

➢ **Mitigation:**
- ❍ **Restriction on the construction and other developmental activities** such as roads and dams in the areas prone to landslides.
- ❍ **Limiting agriculture** to valleys and areas with moderate slopes.
- ❍ **Control** on the development of large settlements in the high vulnerability zones.
- ❍ **Promoting large-scale afforestation** programmes and **construction of bunds** to reduce the flow of water.
- ❍ **Terrace farming** should be encouraged in the northeastern hill states where Jhumming (Slash and Burn/Shifting Cultivation) is still prevalent.

Hurricane Laura

Why in News

Hurricane Laura has made landfall in southwestern **Louisiana** (South Central United States) with wind speeds reaching up to 250 km an hour.

Key Points

➢ **Description: Hurricane Laura is a Category 4 storm.**
- ❍ A Category 4 storm has wind speeds between 130-156 mph and can uproot trees and bring down power lines.

Note:

➤ **The Saffir-Simpson Hurricane Wind Scale:** Hurricanes are categorized on the **Saffir-Simpson Hurricane Wind Scale**, which rates them on a scale of 1 to 5 based on wind speed.

○ Hurricanes that reach category **three or higher** are classified as **major hurricanes**. It is because of their potential to cause devastating damage to property and life.


➤ **Timings of Hurricane:**

○ Two seasons of hurricanes are observed in the Atlantic and Pacific regions:

● The **Atlantic hurricane season** runs from 1st June to 30th November

● The **Eastern Pacific hurricane season** runs from 15th May to 30th November.

● **Hurricane Hanna**: It was the last storm which made landfall on the Texan coast reaching wind speeds of up to 90 mph, and was listed as a **Category 1** storm. It was the **first** hurricane of the 2020 **Atlantic hurricane season**.

➤ **Hurricane:**

○ **Origin:** Tropical cyclones or hurricanes use **warm, moist air as fuel**, and therefore **form over warm Equatorial water.**

○ **Mechanism:**

● **Low-Pressure Creation:** When the **warm, moist air rises upward** from the surface of the ocean, it creates an area of **low air pressure below**.

● When this happens, the **air from the surrounding areas rushes** to fill this place, eventually rising when it becomes warm and moist too.

● An **eye** forms in the centre. It is the calmest part of the cyclone. Before the wind reaches the centre it gets warmed up and rises upwards.

○ When the **warm air rises and cools off**, the moisture forms clouds. This system of clouds and winds continues to grow and spin.

○ This disturbance is fuelled by the ocean's heat and the water that evaporates from its surface.

○ Such storm systems rotate faster and faster.

○ Storms that form towards the north of the equator rotate **counterclockwise**, while those that form to the **south spin clockwise because** of the rotation of the Earth.

Worldwide Terminology of Tropical Cyclones

➤ Depending on where they occur, hurricanes may be called typhoons or cyclones. They are given many names in different regions of the world:

○ **Typhoons:** In the China Sea and Pacific Ocean.

○ **Hurricanes:** In the West Indian islands in the Caribbean Sea and Atlantic Ocean.

○ **Tornados:** In the Guinea lands of West Africa and southern USA.

○ **Willy-willies:** In north-western Australia and

○ **Tropical Cyclones:** In the Indian Ocean Region.
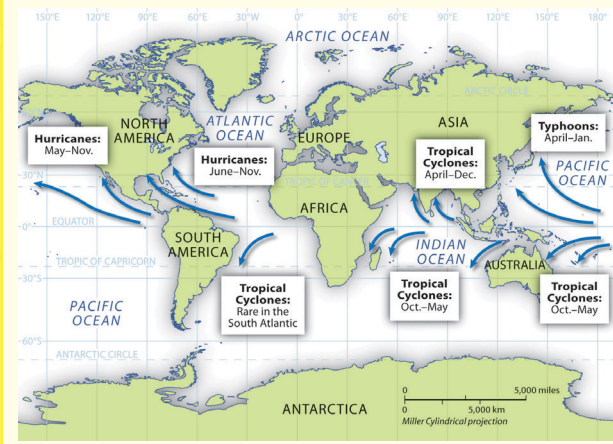
Shetrunji and Bhadar Dams of Gujarat

Why in News

Due to heavy rains, Shetrunji and Bhadar dams, the **two largest reservoirs** in the Saurashtra **region (Gujarat)**, have overflowed simultaneously.

➤ This monsoon, rain is centred over south Gujarat, Saurashtra and Kutch regions while north and central Gujarat regions are highly rain-deficient.

Note:

Key Points

- ➢ **Saurashtra region** has received **more than 100% of its average rainfall** this year.
  - ○ However, in this peninsular region, almost **every fourth monsoon remains a deficient monsoon.**
  - ○ Even within 11 districts of Saurashtra, **spatial distribution of rainfall remains skewed**, as evidenced by 12 different years in which either only Bhadar or Shetrunji dam overflowed.
- ➢ **Shetrunji and Bhadar Dam:**
  - ○ **Shetrunji** is located in **Bhavnagar** district and has a designed gross storage capacity of 308.68 million cubic metre (mcm), the **largest** in Saurashtra region.
  - ○ **Bhadar** is located in **Rajkot district** and has a gross storage capacity of 188.14 mcm, the **second largest** in the Saurashtra region.
  - ○ The **two dams are across Shetrunji and Bhadar rivers.** These rivers flow in opposite directions and the two dams have different catchment areas. Geographical location of these dams in Saurashtra makes them a good indicator of rainfall distribution in the region.
  - ○ **Sardar Sarovar Dam,** also called Narmada Dam, is the largest reservoir in Gujarat.
- ➢ **Shetrunji River:**
  - ○ It originates from the **Amreli district**. It is an **east flowing river** and outfalls into the Gulf of Khambhat.
  - ○ **Tributaries**: Safara, Shel, Khari, Talaji, Stali, Thebu, Gagadia, Rajwal and Kharo.
- ➢ **Bhadar River:**
  - ○ It originates from **Jasdan taluka of Rajkot.**
  - ○ **Tributaries**: Gondali, Chapparwadi, Phopal, Utawali, Moj, Venu, Vasavadi, Surwa and Galolia.

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Art & Culture

Highlights

- *Pandit Jasraj*
- *Revamp of Lingaraj Temple: Odisha*
- *Behrupiya: Folk Artiste*
- *World Urdu Conference 2020*
- *Nuakhai Juhar*

# Pandit Jasraj

Why in News

Recently **Pandit Jasraj**, one of the world's most prominent **Indian classical** vocalists, has passed away.

Key Points

➢ Pandit Jasraj was associated with **Mewati Gharana** of music.

➢ He is known for his unconventional mixing of *khayal* with elements of *bhakti rasa,* employing *harkats* and *murkis* that were traditionally used in light classical music.

    ○ *Khayal* is a **musical** form based on the elaboration of a *Raga* with a lyrical composition consisting of two stanzas.

➢ He also performed semi-classical old musical forms such as the **Haveli sangeet.**

    ○ *Haveli Sangee*t are performances held in temples and the compositions are sung in praise of **Lord Krishna.**

➢ He created a unique form of *jugalbandi* called *Jasrangi*, in which a male and a female singer sing different ragas in their respective scales to merge their individual displays into one unified performance.

➢ He is the recipient of numerous awards, honours and titles, including the prestigious **Padma Vibhushan and the Sangeet Natak Akademi Award.**

➢ The **International Astronomical Union** (IAU) **named an asteroid after him,** formally known as 2006 VP32, as **Panditjasraj**.
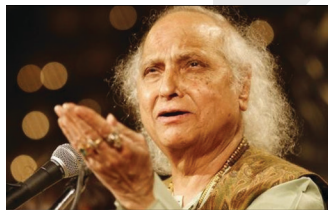
    ○ He was the **first Indian musician** to receive this honour.

Gharana

➢ *Gharana* in **Hindustani music of India**, is a community of performers who share a **distinctive musical style** that traces to a **particular instructor or region or ancestry.**

➢ It includes not only the peculiarities of **performance** and **repertoire** but also a broader **ideology of music, aesthetics** and **pedagogy.**

➢ The style must be passed down through **at least three generations** before it and its practitioners may be considered a *Gharana*.

➢ *Gharana*s exist for both **vocal** and **instrumental** traditions as well as for **dance.**

➢ The concept gained currency only in the nineteenth century when the **royal patronage** enjoyed by performers **weakened**. Performers were then compelled to move to urban centres. To retain their respective identities, they associated themselves with the names of the regions they hailed from.

➢ Some of the *Gharanas* well known for **singing are** Agra, Gwalior, Mewati, Bhendibazar, Jaipur for *Khyal* singing; Mathura, Rampur, Darbhanga for *Dhrupad* singing and Banaras, Lucknow, Patiala for *Thumri* singing.

Revamp of Lingaraj Temple: Odisha

Why in News

The Odisha government has decided to give a facelift to the 11th century Lingaraj Temple, akin to its pre-350-year structural status.

Note:

➢ This announcement has come despite the massive financial burden on the State economy in the wake of **Covid-19 pandemic.**

Key Points

➢ The efforts will be to create a **spiritual and ecological ambience** in and around the Lingaraj Temple.

➢ The **redevelopment plan of the peripheral area of the temple**, known as **'Ekamravan Kshetra'**, in Bhubaneswar, has been approved.

➢ Further, the government is planning a **barrier-free access between the Temple and Bindusagar lake.**

   ○ After the Lingaraj Temple, the Bindusagar (a sprawling pond) is the second major attraction for devotees. The pond has a religious relationship with the main temple.

   ○ Historical records suggest that about 350 years ago, there was nothing between the Temple and the Lake except some temples.

   ○ **Bindhyabasini, Bhabani Shankar, Shukasari and Mohini temples** will be part of the redevelopment plan.

➢ This is a part of the **Lingaraj Temple Heritage Development Project** under **Ekamra plan.**

   ○ Through Ekmara plan, it is expected that heritage redevelopment will enhance the attraction of **Bhubaneswar** as a tourist site and **claim for a UNESCO heritage site will be stronger.**

Lingaraj Temple

➢ Built in the **11ᵗʰ century AD,** this temple is dedicated to **Lord Shiva** and is considered as the largest temple in the city **Bhubaneswar.**

➢ It is **believed** to have been **built by the Somvanshi King Yayati I.**

➢ The main tower of this temple measures **180-feet in height.**

➢ It is built in **red stone** and is a classic example of the **Kalinga style of architecture.**

➢ The temple is divided into **four sections**: *Garbh Griha* (sanctum sanctorum), *Yajna Shala* (the hall for prayers), *Bhoga Mandap* (the hall of offering) and the *Natya Shala* (hall of dance).

➢ The sprawling temple complex has **one hundred and fifty subsidiary shrines.**

➢ Lingaraj is referred to as **'Swayambhu'**, meaning self-originated Shivlinga.

➢ Another important aspect of the temple is that it signifies the **syncretisation of Shaivism and Vaishnavism sects in Odisha.**

   ○ Perhaps the rising cult of Lord Jagannath (considered an incarnation of Lord Vishnu) which coincided with the completion of the Lingaraja Temple had a role to play.

   ○ The presiding deity in the temple is known as *Hari-Hara*; Hari denotes Lord Vishnu and Hara meaning Lord Shiva.

➢ The temple is **out of bounds for non-Hindus.**

➢ The other attraction of the temple is the **Bindusagar Lake**, located in the north side of the temple.

➢ On the western banks of Bindusagar, lies the **garden of *Ekamra Van*** named after the Hindu mythological texts where Bhubaneswar, the capital city of Odisha, was referred as Ekamra Van or a forest of a single mango tree.

Other Important Monuments in Odisha

➢ **Konark Sun Temple** (UNESCO World Heritage Site).

➢ **Jagannath Temple**.

➢ **Tara Tarini Temple**.

➢ Udaygiri and Khandagiri Caves.

Behrupiya: Folk Artiste

Why in News

The **Covid-19 pandemic** has impacted the livelihood of several folk artistes including **'Behrupiyas'.**

Key Points

➢ The word *'behrupiya'* is a **derivative of the Sanskrit word bahu** (many) and **roop** (form).

➢ *Behrupiyas* are **impersonators,** mostly known to perform in villages and markets all over India.

   ○ They put on various costumes to play figures from mythology, folklore and traditional stories.

➢ The *behrupiya* festival is a **traditional Indian style of street theatre** and takes place every year in different locations- Delhi, Ahmedabad, Udaipur, Jaipur, Kumbh, Muzaffarnagar and others.

Note:

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- National *Behrupiya* Festival was organised by the **Indira Gandhi National Centre for the Arts** (IGNCA) from 5th - 8th October 2018.
- IGNCA is an **autonomous institution under the Ministry of Culture.**

➢ *Behrupiyas* were more than artists in the past. They **assisted in circulating, transmitting and publicising the various knowledge forms** in the popular domain of *Samaj,* the people. The **vibrant tradition of Ramlila** can also be seen as an extension of this practice which continues even today.

- **Arthashastra** makes a mention of religious processions in the Mauryan times where artistes dressed as gods and were taken out in tableaux all around the kingdom.
- **Rajasthan's** *Behrupiyas* had served **Maharaja Sawai Madho Singh** of the erstwhile **Jaipur kingdom.** They are also said to have helped freedom fighters during the struggle for Independence.

➢ **Different Forms of Traditional Theatres in India:**
- Bhand Pather: Kashmir
- Nautanki: Uttar Pradesh
- Bhavai: Gujarat
- Jatra: Bengal
- Maach: Madhya Pradesh
- Bhaona: Assam
- Dashavatar: Konkan and Goa Regions
- Tamaasha: Maharashtra
- Krishnattam, Koodiyaattam and Mudiyettu: Kerala
- Yakshagana: Karnataka
- Therukoothu: Tamil Nadu

World Urdu Conference 2020

Why in News

The World Urdu Conference 2020 is being organised by the **National Council for Promotion of Urdu Language (NCPUL)** from 27th - 28th August 2020.

Key Points

➢ **Meaning:** Literally, the word Urdu (originally Turkish) means the **royal camp**.

➢ **Historical Background:**
- Urdu had developed and flourished in Delhi during the period of **'Delhi Sultanate'** from 12th to 16th century and then during the period of **'Mughal Empire'** in Delhi from 16th century to 19th century when several court poets used this language in their great poetry and writings.
  - Its first major folk poet **Amir Khusrau** (1253-1325), composed dohas (couplets) and riddles in the newly-formed speech, then called **Hindavi.**
- **Spread in South India:** When Delhi Sultanate and then Mughal Empire spread in the Deccan, Urdu spread in southern states.
  - The language derived even local words from the local languages of those states and developed as a **'Dakhni'** language which was a bit distinctive of Urdu language in the North.
- The **divide between Urdu and Hindi** occurred under the **colonial impact.**
  - Hindi and Urdu got split along religious lines with Hindi in Nagari script becoming identified with Hindus, and Urdu in Persian script identified with Muslims.

➢ **Contemporary Context:** Urdu is a major language of South Asia.
- It is spoken in countries including **India, Pakistan, Afghanistan, Bangladesh, and Nepal**.
- It has become the **culture language and lingua franca** of the **South Asian Muslim diaspora** outside the sub-continent, especially in the Gulf and the Middle East, Western Europe, Scandinavia, USA and Canada.

➢ **Relation with Hindi:**
- Both Urdu and Hindi belong to the new **Indo-Aryan group** sharing the **same Indic base**.
- Urdu and Hindi taken together form the **third largest speech community** in the world today.

➢ **Status in India:**
- **Scheduled Language:** Urdu is one of the languages mentioned in the **8th Schedule** to the Constitution.
  - The **Constitutional provisions** relating to the 8th Schedule are articles **344(1)** and **351.**
  - Presently, 8th Schedule consists of the **22 languages** namely (1) Assamese, (2) Bengali, (3) Gujarati, (4) Hindi, (5) Kannada, (6) Kashmiri, (7) Konkani, (8) Malayalam, (9) Manipuri, (10) Marathi, (11) Nepali, (12) Oriya, (13) Punjabi, (14) Sanskrit, (15) Sindhi, (16) Tamil, (17) Telugu,

Note:

(18) Urdu (19) Bodo, (20) Santhali, (21) Maithili and (22) Dogri.

> **National Council for Promotion of Urdu Language**
> - NCPUL has become the **biggest Urdu networking hub** in the world.
> - The National Council for Promotion of Urdu Language started functioning as an **autonomous body in 1996**. It comes under the **Ministry of Education.**
> - It is the National **Nodal Agency** for Promotion of Urdu.
> - NCPUL has also been assigned the r**esponsibility of promotion of Arabic and Persian**.
> - **Major Objectives:**
>   - To take action for making available in Urdu language, the knowledge of **scientific and technological development** as well as **knowledge of ideas evolved in the modern context.**
>   - To **advise the Government** on issues connected with Urdu language as may be referred to it.

- **Official Language of Different States:** It is one of the official languages in states like Kashmir, Telangana, UP, Bihar, New Delhi and West Bengal.
- **Composite Culture:** Urdu is a language of **composite culture and interfaith bonds** in India.
  - Hindu-Muslim composite culture is a constructed concept of the **20th century** that describes **amalgams of Hindu and Islamic elements** in South Asian culture.
  - **Article 51A(f)** of the Constitution declares a solemn **fundamental duty** of every citizen to value and preserve the rich heritage of our composite culture.
- **Speaker Base:** The Urdu speakers in India number almost **44 million.** The largest numbers are in the state of **Uttar Pradesh**, followed by **Bihar, Andhra Pradesh, Maharashtra and Karnataka**.
  - These states together account for **85%** of the national Urdu-speaking population.
  - **Delhi** is the major centre of Urdu literature and publishing.

Nuakhai Juhar

Why in News

The Prime Minister of India greeted the farmers on the occasion of Nuakhai Juhar (23rd August, 2020).

Key Points

- Nuakhai Juhar is an **agricultural festival**, also called **Nuakhai Parab** or **Nuakahi Bhetghat**.
  - It is celebrated to welcome the new crop of the season.
  - **Nuakhai** is a combination of **two words** that signifies eating of **new rice** as 'nua' means new and 'khai' means eat.
- This is the festival of **Western Odisha, southern Chhattisgarh** and adjoining areas of **Simdega (Jharkhand)**.
  - Its coastal counterpart is **Nabanna**, observed in Coastal Odisha.
- It is **observed on** *panchami tithi* (the fifth day) of the lunar fortnight of the month of *Bhadrapada* (August–September), the day after the **Ganesh Chaturthi** festival.
  - Lagan is the fixed time of the day to celebrate the festival.
- **Festive Activities:** Farmers offer the first produce from their lands to Goddess Samaleswari, the famous 'Mother Goddess' of Sambalpur district of Odisha.
  - Sambalpuri dance forms like Rasarkeli and Dalkhai can be witnessed.
- **Historical Background:**
  - It is believed to have been **adopted from the tribal communities of western Odisha**.
    - As the preparations reveal elements of both **tribal origins and the Hindu rituals**.
  - Nuakhai festival traces its origin to the Vedic period in *Panchyajna*. One among them was *Pralambana yajna* which means the cutting of new crops and offering them to the mother goddess.
  - Oral tradition of this festival dates back to the **12th century A.D.** when this festival was celebrated by **Chauvan Raja Ramai Deo,** Bolangir district of Odisha.

■■■

Note:

Social Issues

Highlights

- *Minimum Age of Marriage for Girls*
- *National Cancer Registry Programme Report 2020*
- *Inclusion of the Disabled in the National Food Security Act 2013*
- *BIPOC*
- *Women in Research And Development*
- *Poshan Maah*
- *UN Principles for People with Disabilities*

Minimum Age of Marriage for Girls

Why in News

The Prime Minister, during his address to the nation on the **74th Independence Day,** announced that the **central government has set up a committee to reconsider the minimum age of marriage for women,** which is **currently 18.**

Key Points

➢ **About the Committee:**
- ❍ The **Union Ministry for Women and Child Development** set up a committee to examine matters pertaining to age of motherhood, imperatives of lowering **Maternal Mortality Ratio** and the improvement of nutritional levels among women. The Committee is **headed by Jaya Jaitely.**
  - The Committee was **proposed in the Union Budget 2020-21.**
- ❍ It will examine the **correlation of age of marriage and motherhood with health, medical well-being**, and nutritional status of the mother and neonate, infant or child, during pregnancy, birth and thereafter.
- ❍ It will also look at key parameters like **Infant Mortality Rate (IMR)**, **Maternal Mortality Rate (MMR)**, **Total Fertility Rate (TFR)**, **Sex Ratio at Birth (SRB)** and **Child Sex Ratio (CSR),** and will **examine the possibility of increasing the age of marriage for women from the present 18 years to 21 years.**

➢ Arguments Against Increasing the Minimum Age of Marriage of Women:

- ❍ The **National Coalition Advocating for Adolescent Concerns** asserts that increasing the legal age of marriage for girls will only "**artificially expand the numbers of married persons deemed underage** and criminalise them and render underage married girls without legal protection".
- ❍ Instead, **transformative, well resourced measures** that increase girls' access to education and health, create enabling opportunities and place girl's empowerment at the centre will not just delay marriage but lead to long term, positive health and education outcomes.
- ❍ It recommended **bringing education for three-to-five year-olds and 15-to-18 years under the Right to Education**, instead of confining the law to children between 6 years to 14 years.

Present Age for Marriage

➢ The **Special Marriage Act, 1954** and the **Prohibition of Child Marriage Act, 2006** prescribe **18** and **21** years as the minimum age of consent for marriage for **women** and **men** respectively.

➢ The laws prescribe a minimum age of marriage to essentially **outlaw child marriages** and **prevent the abuse of minors**.

➢ Additionally, **sexual intercourse with a minor is rape**, and the 'consent' of a minor is regarded as invalid since she is deemed incapable of giving consent at that age.

Different Legal Age of Marriage for Men and Women

➢ There is **no reasoning in the law for having different legal standards of age** for men and women to marry and it has been challenged on the grounds of **discrimination**.

Note:

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➢ Such a law **violates Articles 14 and 21 of the Constitution**, which guarantee the right to equality and the right to live with dignity.

➢ **Against the Supreme Courts' Following Judgements:**

　○ In **2014**, in the '*National Legal Services Authority of India v Union of India*' case, the Supreme Court, while **recognising transgenders as the third gender**, said that justice is delivered with the "assumption that **humans have equal value** and should, therefore, be treated as equal, as well as by equal laws".

　○ In **2019**, in '*Joseph Shine v Union of India',* the Supreme Court **decriminalised adultery,** and said that **"a law that treats women differently based on gender stereotypes is an affront to women's dignity".**

➢ Further **India is a state party to the Convention on the Elimination of All Forms of Discrimination against Women, 1979.**

　○ The **Committee on the Elimination of Discrimination against Women (CEDAW),** which monitors the implementation of the Treaty, calls for the abolition of laws that assume women have a different physical or intellectual rate of growth than men.

National Cancer Registry Programme Report 2020

Why in News

According to the recently released **National Cancer Registry Programme Report 2020**, **cancer cases in India are likely to increase** to 15.6 lakhs by 2025, a 12% increase from the current estimated cases.

➢ The report has been released by the **Indian Council of Medical Research** (ICMR) and the **National Centre for Disease Informatics and Research** (NCDIR), Bengaluru.

Key Points

➢ **Number of Cases:** The number of cases are likely to touch 15.6 lakhs by 2025 from the current 13.9 lakhs in 2020.

➢ **Major Cause: Tobacco-related cancers** are estimated to contribute **27.1% of the total cancer burden**.

➢ **Regional Distribution:** Cancers related to use of any form of tobacco were **highest in the northeastern region** of the country and in **higher proportions in men**.

➢ **Gender Prevalence:**

　○ Among **women**, **breast cancers** are estimated to contribute 14.8% and **cervical cancer** (tumour of the cervix, the lowermost part of the uterus) is estimated to contribute 5.4%.

　○ For **both men and women**, **cancers of the gastrointestinal tract** are estimated to contribute 19.7% of the total cancer burden.

　○ Cancers of the **lung, mouth, stomach and oesophagus** (the muscular tube that runs from the throat to the stomach) are the most common cancers **among men**.

➢ **Detection and Spread: Cancers of the lung** were diagnosed at a **stage of spread to distant sites**, while **cancers of head and neck, stomach, breast and cervix** were in **higher proportions with a locoregional** (restricted to a localized region of the body) **spread**.

➢ **Cancer Incidence Rate:**

　○ For the **male population**, it ranges from 269.4 (Aizawl, Mizoram) to 39.5 (Osmanabad and Beed, Maharashtra) per 1,00,000 population.

　○ For the **female population**, it ranges from 219.8 (Papumpare, Arunachal Pradesh) to 49.4 (Osmanabad and Beed, Maharashtra) per 1,00,000 population.

　○ A significant **increase in the incidence rates of breast cancers in women** and **lung and head and neck cancers in both men and women** was observed.

　○ A **declining trend** was seen in most of the registries for **cancer of the cervix**.

Cancer

➢ Cancer is a generic term for a **large group of diseases characterized by the growth of abnormal cells beyond their usual boundaries** that can then invade adjoining parts of the body and/or spread to other organs.

➢ Other common terms used for cancer are **malignant tumors and neoplasms**.

➢ Cancer is one of the **leading causes of death globally**.

➢ **World Cancer Day** is organized by the **Union for International Cancer Control** (UICC) and celebrated each year on **4th February**.

○ **2020 theme: 'I Am and I Will'**, which acknowledges that everyone has the capacity to address the cancer burden.

Indian Council of Medical Research

➢ It is the **apex body in India for the formulation, coordination and promotion** of biomedical research.

➢ It is **funded by the Government of India** through the Department of Health Research, Ministry of Health and Family Welfare.

National Centre for Disease Informatics and Research

➢ It is one of its kind of unique institution which **utilizes information science for health research** as its integral component.

➢ **Objective:** To **sustain and develop a national research data-base** on cancer, **diabetes**, **CardioVascular Disease** (CVD) and stroke through recent advances in electronic information technology with a national collaborative network.

Inclusion of the Disabled in the National Food Security Act 2013

Why in News

The **Ministry of Consumer Affairs, Food & Public Distribution** has asked State Governments/UTs to include all eligible **disabled persons** under the **National Food Security Act (NFSA), 2013**.

Key Points

➢ The disabled persons should get their entitled quota of food grains under **NFSA** & **Pradhan Mantri Garib Kalyan Anna Yojana** (PMGKAY) as per provisions of the Act.

○ Those not already covered should be issued fresh ration cards as per the eligibility criteria.

○ The disable person should also be covered by States/UTs under **the priority households** as per the criteria of identification evolved by them.

○ **PMGKAY** is a part of **Pradhan Mantri Garib Kalyan Package (PMGKP)** to help the poor fight the battle against **Covid-19**.

➢ The **Section 10** of the NFSA provides for identification and coverage of persons under the **Antyodaya Anna Yojana (AAY)** and the remaining households as **priority households** by the State Government.

○ Disability is one of the criteria for the inclusion of beneficiaries under AAY households.

➢ The **Section 38** of the NFSA mandates that the Central Government may from time to time give directions to the State Governments for effective implementation of the provisions of the Act.

➢ The **Atmanirbhar Bharat Package** of the Government of India provides free food, along with other benefits, to the migrant labourers, who are not covered either under NFSA or any **States Scheme Targeted Public Distribution System (TPDS) Cards (Under Economic Stimulus-II)**.

○ Hence, the disabled persons **without ration cards are also eligible** for getting benefits under Atmanirbhar Bharat package.

National Food Security Act (NFSA), 2013

➢ **Objective:** To provide for **food and nutritional security** in the human life cycle approach, by ensuring access to adequate quantities of quality food at affordable prices to people to live a life with dignity.

➢ **Coverage: 75%** of the rural population and upto **50%** of the urban population for receiving subsidized foodgrains under **Targeted Public Distribution System (TPDS)**.

➢ **Eligibility:**

○ **Priority Households** to be covered under TPDS, according to guidelines by the State government.

○ Households covered under existing **Antyodaya Anna Yojana**.

➢ **Provisions:**

➢ 5 Kgs of foodgrains per person per month at Rs. 3/2/1 per Kg for rice/wheat/coarse grains respectively.

➢ The existing AAY household will continue to receive **35 Kgs** of foodgrains per household per month.

➢ **Meal** and **maternity benefit** of not less than Rs. 6,000 to **pregnant women and lactating mothers** during pregnancy and six months after the child birth,

➢ Meals to **children upto 14 years of age.**

➢ **Food security allowance** to beneficiaries in case of non-supply of entitled foodgrains or meals.

➢ Setting up of **grievance redressal mechanisms** at the district and state level.

Antyodaya Anna Yojana

➢ It was launched in **December, 2000.**

Note:

➢ It involved identification of **one crore poorest of the poor familie**s from amongst the number of **Below Poverty Line** families covered under TPDS within the States and providing them food grains at a highly subsidized rate.

➢ Some target groups identified under AAY are:

  ○ **Landless agricultural labourers**, **marginal farmers**, rural **artisans /craftsmen** and persons earning their livelihood on a daily basis in the **informal sector.**

  ○ Households headed by **widows/ terminally ill** persons/**disabled** persons/ **senior citizens.**

  ○ Widows or terminally ill persons or **disabled persons** or senior citizens.

  ○ All **primitive tribal** households.

BIPOC

Why in News

The term BIPOC became popular on the internet during the **Black Lives Matter** movement. It stands for "Black, Indigenous and People of Color."

Key Points

➢ The BIPOC movement urges to **acknowledge the diversity in skin color, race, and hair** and advocates for **inclusivity and representation** across all areas of life, from politics to skin care.

➢ It speaks against the **invisible discrimation** that exists in various industries.

➢ It is been seen as a **substitute to degrading and offensive terms** like negro, african-american and minority.

  ○ The term **People of Colour (POC)** came into use during the 1960s to replace the words blacks, browns or coloured people.

➢ The **civil rights challenges, systemic oppression and racism** faced by people under BIPOC are similar and thus, the term is used to **reinforce the collective experience** between Black and Indigenous people and to **unite** them.

➢ **Criticism:** However, some people criticize the use of the term as it puts the separate problems of different groups of people in one basket thus **erasing the chances of specialized solutions for each.**

  ○ It is also being said that all groups in BIPOC do not face equal levels of injustice.

  ○ Also, it is said to be a **colonial tendency to homogenize** different sets of people.

Women in Research And Development

Why in News

According to the **Science and Technology Indicators (STI), 2018,** India's private sector research companies appear to **employ a larger proportion of women in core research and development activities** than government-funded major scientific agencies do.

Key Points

➢ India had 3,41,818 scientists in R&D with nearly 2,03,759 employed by government institutions or in the higher education sector, as of 2018.

➢ Of the 20,351 women employed in private R&D companies, about **three in four** were involved in "R&D activities".

➢ However, of the 23,008 women in major scientific agencies (government), **fewer than half** were in the same 'R&D activities' category.

➢ Also, for **every one woman, there are six** male scientists in **private** sector R&D establishments. However, the ratio is **four for one** in major scientific agencies.

➢ The bulk of scientists (in private and publicly funded organisations included) were in 'Engineering Technology' followed by the Medical Sciences and Natural Sciences.

Science and Technology Indicators (STI)

➢ The STI is a periodic compendium of the state of scientific research in India.

➢ It is prepared by the **National Science and Technology Management Information System,** a division of the **Department of Science Technology.**

➢ **Reasons for low participation of women in R&D:**

  ○ The recruiters and managers at private firms are held **more accountable** to hire as well as promote female employees, as compared to those in government offices.

Note:

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○ The large drop in the number of women between the doctoral and professional stages appears to be in part due to **social pressure on women** to have a family which is seen as incompatible with a professional career.

○ There are also **patriarchal attitudes in hiring practices,** so many women are discriminated against at this stage as well, with administrators deciding that women 'should' be opting for family over a career.

➢ **Global Scenario:**

○ **Women in STEM:**

● **UNESCO** data from 2014-16 shows that only around **30% of female students** select STEM (Science, Technology, Engineering and Mathematics)-related fields in higher education.

● Female enrolment is particularly **low** in information technology (3%), natural science, mathematics and statistics (5%) and engineering and allied streams (8%).

○ **Research as a Profession:**

● According to a 2018 fact sheet prepared by UNESCO on women in science, only **28.8% of researchers are women.**

○ **Share in Nobel Prizes:**

● Between **1901 and 2019,** 334 **Nobel Prizes** have been awarded to 616 Laureates in Physics, Chemistry and Medicine, of which just **20 have been won by women.**

○ **Share in Abel Prizes:**

● In 2019, the **American mathematician Karen Uhlenbeck** became the first woman to win the Abel Prize, following 16 male mathematicians.

● The Abel Prize is a Norwegian prize awarded annually by the King of Norway to one or more **outstanding mathematicians.**

○ **Share in Fields Medals:**

● The Fields Medal so far has also been awarded to only one woman mathematician, the late Maryam Mirzakhani of Iran, as opposed to 59 men since 1936.

● The Fields Medal is awarded **every four years** by the **International Congress of Mathematicians** to recognize outstanding mathematical achievement for existing work and for the promise of future achievement.

➢ **National Scenario**

○ **Women in STEM:**

● The female enrolment in science streams rose from 2010-11 to 2015-16.

● According to the **NITI Aayog** report in 2015-16, 9.3% of female students in Undergraduate (UG) courses were enrolled in engineering, compared to 15.6% across genders. Conversely, 4.3% of female students were enrolled in medical science, compared to 3.3% across genders.

○ **Research as a Profession:**

● Only 13.9% of women work as a researcher in India. At **master's and doctoral levels, female enrolment** remained **lower** than overall enrolment.

○ **Presence at Technical Professions:**

● The NITI Aayog report has also found that in over 620 institutes and universities, including IITs, NITs, ISRO, and DRDO, the presence of women was 20.0% among Scientific and Administrative Staff, 28.7% among Post-Doctoral Fellows, and 33.5% among PhD scholars.

○ **Gender Gap Index**

● According to the **Global Gender Gap Index 2020,** a study covering 153 economies, India has slipped to the 112th spot from its 108th position in 2018.

● The report also says it would take nearly a hundred years to close the gender gap in various fields in India compared to the time it would take in other countries.

○ **Work Participation:**

● According to the **World Bank,** India ranks **163rd out of 181 countries** in **female labour force participation.**

● Also, India is one of the few countries in the world where women's work participation rates have fallen sharply — from 29% in 2004-5 to 22% in 2011-12 and to 17% in 2017-18.

○ **Inequality at Work:**

● According to the **Centre for Monitoring Indian Economy (CMIE),** a large percentage of all the jobs lost last year were held by women. Out of the 11 million jobs lost in 2018, women accounted for 8.8 million.

Note:

- **Indian women** receive 34% fewer wages than men for equivalent work, spend around five hours a day on unpaid care work compared to a mere half an hour for men and are primarily engaged in low-paying, informal sector work.

➢ **Initiatives to Promote Women in Science**

○ **Vigyan Jyoti Scheme:**

- **Vigyan Jyoti Scheme** is launched by the **Department of Science & Technology (DST).**

- It is intended to create a **level-playing field** for the **meritorious girls in high school** to pursue Science, Technology, Engineering, and Mathematics (STEM) in their higher education.

- It also offers exposure for girl students from the rural background to help to plan their journey from school to a job of their choice in the field of science.

○ **GATI Scheme:**

- The **Gender Advancement for Transforming Institutions (GATI)** will develop a **comprehensive Charter and a framework for assessing Gender Equality** in STEM

○ **KIRAN Scheme**

- **Knowledge Involvement in Research Advancement through Nurturing (KIRAN) Scheme** is started by the **Department of Science and Technology (DST)** aimed to **bring gender parity in the Science & Technology sector** by inducting more women talent in the research & development domain.

○ **Beti Bachao Beti Padhao (BBBP) Scheme**

- **BBBP** is the joint initiative of the Ministry of Women and Child Development, Ministry of Health and Family Welfare and Ministry of Human Resource Development to ensure **survival, protection, and empowerment of the girl child.**

○ **National Science Day (NSD)** was celebrated on 28th February 2020 with the theme **'Women In Science'.**

- **Dr Niti Kumar,** a senior scientist from the **CSIR-Central Drug Research Institute (CDRI)**, Lucknow received **SERB Women Excellence Award-2020** on this occasion.

○ According to the **All-India Survey on Higher Education (AISHE) report 2018-19**, the gender gap in the country **narrowed** as compared to the previous year, i.e. 2017-18.

○ Initiatives like **She-box** are ensuring **workplace safety** and boost better participation of women in all areas of economy.

UN Principles for People with Disabilities

Why in News

The **United Nations (UN)** has released its **first-ever guidelines** on **access to social justice for People with Disabilities(PwD)** to make it easier for them to access justice systems around the world.

➢ The guidelines outline a set of 10 principles and detail the steps for implementation.

Key Points

➢ **10 Principles:**

○ **Principle 1:** PwD shall not be denied access to justice on the basis of disability.

○ **Principle 2:** Facilities and services must be **universally accessible** without discrimination of PwD .

○ **Principle 3:** PwD, including children with disabilities, have the **right to appropriate procedural accommodations**.

○ **Principle 4:** PwD have the **right to access legal notices and information in a timely and accessible manner** on an equal basis with others.

○ **Principle 5:** PwD are **entitled to all substantive and procedural safeguards recognized in international law** on an equal basis with others, and **States must provide** the necessary accommodations to guarantee due process.

○ **Principle 6:** PwD have the **right to free or affordable legal assistance**.

○ **Principle 7:** PwD have the **right to participate in the administration of justice** on an equal basis with others.

○ **Principle 8:** PwD have the **right to report complaints and initiate legal proceedings** concerning human rights violations and crimes.

○ **Principle 9: Effective and robust monitoring mechanisms** play a critical role in supporting access to justice for PwD.

○ **Principle 10:** All those working in the justice system must be provided with **awareness-raising and training programmes** addressing the rights of PwD.

➢ **UN Definition of Person with Disability:**

○ The **UN Convention on the Rights of PwD**, which was adopted **in 2006,** defines persons with disabilities as those "who have **long-term physical, mental, intellectual or sensory impairments** which in interaction with various barriers may **hinder their full and effective participation in society on an equal basis** with others".

○ India ratified the Convention in October 2007.

○ The Parliament enacted the Rights of Persons with Disabilities Act, 2016 with a view to fulfilling the obligations under the UNCRPD.

➢ **Statistics:**

○ As per statistics maintained by the UN:

● Around 15% of the world's population, or estimated 1 billion people, live with disabilities. They are the world's largest minority.

● In India

● 2.4 % of males are disabled and

● 2% of females from all age groups are disabled.

Indian Efforts for Persons with Disability

➢ **Constitutional Provisions:**

○ **Article 41** of the Directive Principles of State Policy (DPSP) states that the State shall make effective provision for securing right to work, to education and to public assistance in cases of unemployment, old age, sickness and disablement, within the limits of its economic capacity and development.

○ The **subject** of 'relief of the disabled and unemployable' is specified in the state list of the **Seventh Schedule** of the constitution.

➢ **Legislation for Disabled - Right of Persons with Disabilities Act, 2016**:

○ The **Right of Persons with Disabilities Act, 2016** replaces the Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995.

○ "Person with disability" means a person with **long term physical, mental, intellectual or sensory impairments which, in interaction with barriers, hinders his full and effective participation in society equally with others**.

○ "**Person with benchmark disability**" means a person with not less than 40% of a specified disability where specified disability has not been defined in measurable terms and includes a person with a disability where specified disability has been defined in measurable terms, as certified by the certifying authority.

○ The **types of disabilities** have been **increased from 7 to 21**. The Act added mental illness, autism, spectrum disorder, cerebral palsy, muscular dystrophy, chronic neurological conditions, speech and language disability, thalassemia, hemophilia, sickle cell disease, multiple disabilities including deaf blindness, acid attack victims and Parkinson's disease which were largely ignored in earlier Act. In addition, the Government has been authorized to notify any other category of specified disability.

○ It increases the quantum of reservation for people suffering from disabilities from **3% to 4%** in **government jobs** and from **3% to 5%** in **higher education institutes**.

○ **Every child** with benchmark disability between the age group of **6 and 18 years** shall have the **right to free education**.

➢ **Accessible India Campaign (Creation of Accessible Environment for PwDs):**

○ A nation-wide **flagship campaign** for achieving **universal accessibility** that will enable persons with disabilities to gain access for equal opportunity and live independently and participate fully in all aspects of life in an inclusive society.

○ The campaign targets at enhancing the accessibility of the built **environment, transport system and Information & communication ecosystem**.

Poshan Maah

Why in News

Under *Poshan Abhiyaan*, the month of **September** is observed as Poshan Maah i.e. **Nutrition month** every year, since 2018.

➢ **'Agricultural Fund of India'** is being created to have complete information about the crops that are grown in each district and their related nutritional value.

Note:

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Key Points

➢ **Poshan Maah:**

  ○ It includes **a month-long activities** focussed on antenatal care, optimal breastfeeding, **anaemia**, growth monitoring, girls education, diet, **right age of marriage**, hygiene and sanitation and eating healthy **(food fortification)**.

  ○ The activities focus on **Social and Behavioural Change Communication (SBCC)** and are based on **Jan Andolan Guidelines**.

    ● SBCC is the strategic use of communication approaches to promote changes in knowledge, attitudes, norms, beliefs and behaviours.

    ● Jan Andolan is one of the strategies under the *Poshan Abhiyaan.*

  ○ A food and nutrition quiz as well as meme competition will be organized on the **My Gov portal**.

  ○ A unique kind of **nutrition park** has been created at **Statue of Unity (Gujarat)**, where one can witness nutrition related education along with fun and frolic.

➢ **Poshan Abhiyan:** Also called as the National Nutrition Mission, it is Government of India's flagship programme to improve nutritional outcomes for children, pregnant women and lactating mothers. Poshan implies 'Prime Minister's Overarching Scheme for Holistic Nutrition'.

  ○ **Launch:** It was launched by the Prime Minister on the occasion of the **International Women's Day on 8th March, 2018** from Jhunjhunu in Rajasthan.

  ○ **Implemented By:** Ministry of Women and Child Development

  ○ **Targets:**

    ● To reduce **stunting, underweight, and low birth weight,** each by 2% per year; and anaemia among young children, adolescents and women each by 3% per year until 2022.

    ● The minimum target to **reduce stunting is 2% every year,** but the mission will strive to bring it down from 38.4% in 2016 to 25% by 2022.

Note:

Miscellaneous

Highlights

- *Indigenous People of Andaman and Nicobar*
- *Rajiv Gandhi Khel Ratna Award*
- *Amnesty International*
- *Navroz: Parsi New Year*
- *Green Corridor: Organ Donation*
- *Harit Path Mobile App*
- *Tattoo Sensor for Monitoring Health*

- *New Circles of Archaeological Survey of India*
- *Pulikkali Folk Art of Kerala*
- *Pradhan Mantri Rashtriya Bal Puraskar 2021*
- *China Launches Warship for Pakistan*
- *INS Viraat*
- *Odisha's Bonda Tribe*

Indigenous People of Andaman and Nicobar

Why in News

The report of **Covid-19** cases among the members of the **Great Andamanese** tribe is a matter of concern as the total population of the tribe is already low.
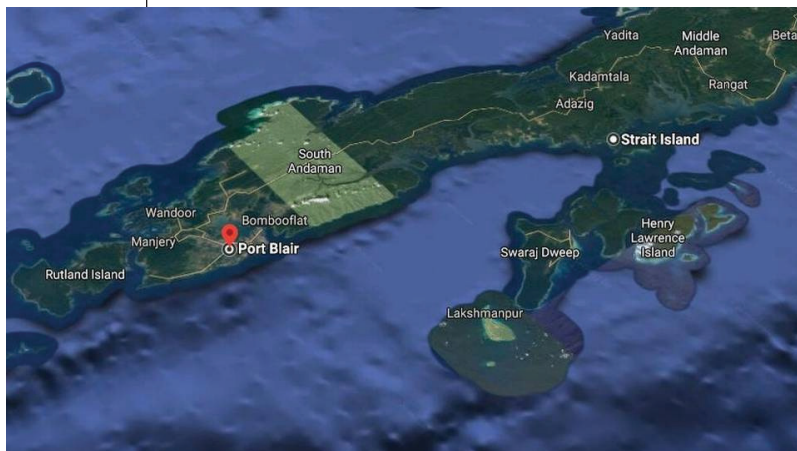
Key Points

➢ **Particularly Vulnerable Tribal Group (PVTG): Great Andamanese are one of five PVTGs that reside in Andamans archipelago.** The other four are: **Jarwas, Onges, Shompens** and **North Sentinelese.**

○ **Shompen** is the only PVTG in the region with **Mongoloid** features. The **other PVTGs** have **negroid** features. Some of them interact with **'Great Nicobarese' - a Scheduled Tribe.**

○ The **population of Andaman and Nicobar Islands' primitive tribes has rapidly declined** over the years. The **epidemics** and **crippling health crises** of the past have been seen to disproportionately impact these indigenous tribal groups.

○ **75 tribal groups** have been **categorised by the Ministry of Home Affairs** as PVTGs. The **Ministry of Tribal Affairs** implements the **Scheme of 'Development of PVTGs'** exclusively for them.

○ **Article 366 (25)** of the Constitution provides a process to define **Scheduled Tribes.**

➢ **Great Andamanese Tribe:**

○ The tribe is based in **'Strait Island'** of Andaman and Nicobar Islands.

○ The members speak **Jeru dialect** among themselves and their **number stands at 51** as per the last study carried out by Andaman Adim Janjati Vikas Samiti in 2012.

- More than 5,000 Great Andamanese lived in the Islands before British settlers arrived in the 19th century.

- However, hundreds were killed in conflict as they defended their territories from British invasion, and thousands more were wiped out in epidemics of **measles**, influenza and syphilis (a bacterial infection).

Rajiv Gandhi Khel Ratna Award

Why in News

For the first time, **five sports persons** will be receiving the Rajiv Gandhi Khel Ratna on the occasion of the **National Sports Day on 29th August.**

Key Points

➢ **27 sports persons** have also been finalised for **the Arjuna Award** while **five coaches** will receive the **Dronacharya Award.**

NATIONAL SPORTS AWARDS 2020

RAJIV GANDHI KHEL RATNA AWARD

Name of the Sportsperson	Discipline
Shri Rohit Sharma	Cricket
Shri Mariyappan T.	Para Athletics
Ms. Manika Batra	Table Tennis
Ms. Vinesh	Wrestling
Ms. Rani	Hockey

➢ **Ms Rani** will become only the **third Indian hockey player** after Dhanraj Pillay and Sardar Singh to receive the Khel Ratna.

➢ **Shri Mariyappan T.** is the **only third Indian para-athlete** to be awarded the Khel Ratna award, after former Paralympic medallists Devendra Jhajharia and Deepa Malik.

➢ Rajiv Gandhi Khel Ratna Award is the **highest sporting award** given by the **Ministry of Youth Affairs and Sports** for the spectacular and most outstanding performance in the field of sports by a sportsperson over a **period of four years.**

  ❍ The award comprises a **medallion, a certificate, and a cash prize of Rs. 7.5 lakh.**

➢ The **National Sports Day** is observed every year across India on **29th August** to mark the birth anniversary of the legendary hockey player Dhyan Chand who was born on **29th August 1905.**

Amnesty International

Why in News

Amnesty International (AI) India has **demanded an independent investigation** into all allegations of human rights violations by the police during the **north-east Delhi riots.**

➢ On 23rd February 2020, riots broke out in Northeast Delhi between Anti-**Citizenship Amendment Act (CAA), 2019** and pro-CAA protestors. The violence took a communal turn and led to deaths, injuries and destruction of properties.

➢ Earlier, AI put forward its views on issues in **J&K** and the role of **Foreigners Tribunals** in Assam.

Key Points

➢ Amnesty International (AI) is an **international Non-Governmental Organisation (NGO)** founded in London (UK) in 1961.

➢ It seeks to **publicise violations by governments** and other entities **of rights recognized in the Universal Declaration of Human Rights (1948)**, especially freedom of speech and of conscience and the right against torture.

➢ In 1977, it was awarded the **Nobel Prize for Peace.**

➢ **AI India** is a part of the global human rights movement spearheaded by Amnesty International. It has its **registered office in Bangalore (**Karnataka)**.**

Navroz: Parsi New Year

Why in News

Navroj was celebrated in India on **16th August 2020.**

➢ **Globally Navroz is celebrated on 21st March**, however, **in India it is celebrated on 16th August** because of the **Shahenshahi calendar** that is followed by Parsis in India.

  ❍ The Shahenshahi calendar **doesn't account for leap years**.

Key Points

➢ Navroz is also known as **Parsi New Year**. In Persian, **'Nav' stands for new, and 'Roz' stands for the day,** which literally translates to **'new day'.**

➢ It is celebrated **to mark the beginning of the Iranian (Persian) calendar**.

➢ The tradition is **observed by Iranians and the Parsi community around the world**.

➢ In India Navroz is also known as **Jamshed-i-Navroz**, after the Persian King, Jamshed. The king **Jamshed** is credited with having created the Shahenshahi calendar.

➢ Navroj is inscribed in the list of **UNESCO Intangible Cultural Heritage of Humanity of India.**

Traditional New Year Festivals in India	
Name	**Features**
Chaitra Shukla Pratipada	➢ It marks the beginning of the new year of the **Vikram Samvat** also known as the Vedic (Hindu) calendar. ➢ Vikram Samvat is based on the day when the emperor Vikramaditya defeated Sakas, invaded Ujjain and called for a new era.
Gudi Padwa and Ugadi	➢ Celebrated in the month of **Chaitra Shukla Pratipada** as per the Hindu Lunar Calendar. ➢ Deccan region including **Karnataka, Andhra Pradesh and Maharashtra.**
Navreh	➢ It is the lunar New Year that is celebrated in **Kashmir.** It falls on the very first day of the Chaitra Navratras.
Sajibu Cheiraoba	➢ It is celebrated by **Meiteis (an ethnic group in Manipur)** which is observed on the first day of Manipur lunar month Shajibu, which falls in the month of **April every year.**
Cheti Chand	➢ It is celebrated by **Sindhi community**. Chaitra month is called 'Chet' in Sindhi. ➢ The day commemorates the birth anniversary of **Ishta Deva Uderolal/ Jhulelal**, the patron saint of Sindhis.
Bihu	➢ It is celebrated three times a year. ➢ **Rongali or Bohag Bihu** is observed in April. Kongali or Kati Bihu observed in October and Bhogali or Magh Bihu observed in January. ➢ Rongali or Bohag Bihu is the **Assamese new year** and spring festival. ➢ The Rongali Bihu coincides with Sikh New Year- Baisakhi.
Baisakhi	➢ It is celebrated as the Indian thanksgiving day by farmers. ➢ It also has religious significance for the Sikhs community as the foundation of the **Khalsa Panth** was laid on this day by **Guru Gobind Singh.**
Losoong	➢ Losoong also known as Namsoong is the **Sikkimese New Year.** ➢ It is usually the time when the farmers rejoice and celebrate their harvest. ➢ It is mostly celebrated in the month of **December every year** with traditional gaiety and colour both by the **Lepchas and Bhutias.**

Green Corridor: Organ Donation

Why in News

Recently, a heart was brought from Pune to Chennai through a **"green corridor"** created for unrestricted movement of human organs.

Key Points

➢ **About:** A green corridor is demarcated, cleared out a **special road route** created for an ambulance that enables retrieved organs meant for transplant to reach the destined hospital.

    ○ Green corridors require a concentrated effort from transplant coordinators, local police, traffic police and airport staff. Awareness of the general public towards green corridors is also important.

➢ **Procedure:** When a patient is declared brain dead and his family consents to organ donation, the availability of a recipient is first checked within the city, state, region and then nationally.

➢ **Need:** Organs have a short preservation time and green corridors ensure the ambulance escapes traffic congestion and reaches the destination in the shortest possible time.

➢ **Coordinated by:** The requisite regulatory procedures and coordination was carried out with **the National Organ and Tissue Transplant Organisation (NOTTO).**

National Organ and Tissue Transplant Organisation

➢ It is a national level organization set up under the **Directorate General of Health Services, Ministry of Health and Family Welfare, located in New Delhi.**

➢ NOTTO's various state centres are called **State Organ and Tissue Transplantation Organisation (SOTTO).**

Note:

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➢ It coordinates and establishes a network for procurement and distribution of organs and tissues as per the **Transplantation of Human Organs (Amendment) Act, 2011.**

➢ NOTTO in collaboration with the **National Informatics Centre (NIC)** is developing a national registry of organ and tissue donors.
  ○ This initiative will help in maintaining data and surveillance of all transplants across the country and also plans to **map the post-transplant survival rate of patients.**

Harit Path Mobile App

Why in News

Recently, the **National Highways Authority of India (NHAI)** has developed **a mobile App, 'Harit Path'** to facilitate **creation of Green Highways** across the country.

Key Points

➢ **Aim:** The App will help to monitor location, growth, species details, maintenance activities, targets and achievements for each and every plant.

➢ **Monitoring:** In order to track the growth and health of the plants, photographs along with data of the plants captured using Harit Path App **shall be uploaded every 3 months** on NHAI's Artificial Intelligence powered Big Data Analytics platform – **Data Lake.**

➢ **Accountability:** Highway **contractors shall be accountable** for proper upkeep and maintenance of the plantation and liable to replace the missing/dead plants.

➢ **Payment:** Performance and **growth of the plants shall be linked to the payment** to the contractors for this work.

➢ **Harit Bharat Sankalp:** Recently, NHAI has completed 25 years of its service, to commemorate this it has undertaken **'Harit Bharat Sankalp'** a nation-wide plantation drive.
  ○ Under this initiative, NHAI planted over 25 lakh plants in 25 days along the stretches of the National Highways between 21st July to 15th August 2020.

Tattoo Sensor for Monitoring Health

Why in News

Recently the scientists from **Indian Institute of Science, Bangalore** have fabricated **a skin conformal tattoo** sensor about **20 micrometre thick.**

Key Points

➢ The scientists were working on wearable sensors that can retract information from the human body using its **skin**

(largest organ of the human body).

➢ **Features:** The tatto sensor promises **continuous monitoring of vital health parameters** of an individual, like pulse rate, respiration rate, and UV rays exposure, skin hydration level, glucose monitoring, and so on.
  ○ It is **non-invasive** and **does not interfere** with the daily activities of the user.
  ○ The sensor has a **fast response** and follows easy fabrication steps and can be **patterned into any shape and size using a laser.**

➢ **Benefit:** The sensor serves as a single conduit for sensing respiration rate and pulse, dispensing with the need of mounting multiple sensors.
  ○ It has the **potential to replace** rigid and bulky health monitoring devices.
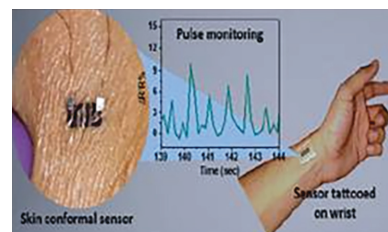
New Circles of Archaeological Survey of India

Why in News

The Ministry of Culture has announced **7 new circles** of the **Archaeological Survey of India (ASI)**.

Key Points

➢ The step has been taken in accordance with the Prime Minister's call to **facilitate and strengthen the process of preservation and registration of archaeological monuments**.

Note:

- New circles in **Jabalpur** (Madhya Pradesh), **Trichy** (Tamil Nadu), **Jhansi** and **Meerut** (Uttar Pradesh), **Hampi** (Karnataka), **Raiganj** (West Bengal) and **Rajkot** (Gujarat) have been created.
- The Hampi circle has been upgraded from the previous Hampi mini circle, and the Delhi mini circle has been merged with the Delhi circle.
- **ASI Circles:**
  - For the maintenance of ancient monuments and archaeological sites and remains of national importance, the entire country is divided into **36 Circles.**
  - These carry out archaeological fieldwork, research activities and implement the various provisions of the **Ancient Monuments and Archaeological Sites and Remains (AMASR) Act, 1958** and **Antiquities and Art Treasures Act, 1972.**

Archaeological Survey of India

- ASI, under the **Ministry of Culture**, is the premier organization for the **archaeological research and protection of** the cultural heritage of the nation.
- It administers more than 3650 ancient monuments, archaeological sites and remains of national importance.
- Its activities include carrying out surveys of antiquarian remains, **exploration** and **excavation** of archaeological sites, **conservation** and **maintenance** of protected monuments etc.
- It was founded in 1861 by **Alexander Cunningham**- the first Director-General of ASI. Alexander Cunningham is also known as the **"Father of Indian Archaeology".**

Pulikkali Folk Art of Kerala

Why in News

- Pulikkali will be held online in **Kerala** this year due to **Covid-19** pandemic.

Key Points

- Pulikkali (Puli means Leopard/Tiger and Kali means Play in Malayalam) is a **recreational** street folk art performed on the **fourth day of Onam** celebrations.

- **Onam ((August–September)** is a Hindu rice harvest festival of Kerala celebrated to commemorate King **Mahabali**.
- The folk art is mainly practiced in **Thrissur** district of Kerala.
- The main theme of this folk art is **tiger hunting** with participants playing the role of tiger and hunter.
- Performers **paint their bodies** like **tigers and hunters** and **dance** on streets to the beats of **traditional percussion instruments** such as thakil, udukku and chenda.
- It was introduced by **Maharaja Rama Varma Sakthan Thampuran**, the then Maharaja of **Cochin**.
- Another key event which takes place during Onam is **Aranmula Boat Race**, the oldest river boat festival in Kerala.
  - It takes place at Aranmula in Pampa river, near a Sree Parthasarathy temple in Pathanamthitta district of Kerala.
- Some Other Art Forms of Kerala:
  - **Ottam Thullal**
  - **Talamaddale**
  - **Kalaripayattu**
  - **Kathakali**
  - **Mohiniyattam**
  - **Mudiyettu**

Pradhan Mantri Rashtriya Bal Puraskar 2021

Why in News

The **Ministry of Women and Child Development** has **invited nominations for the Pradhan Mantri Rashtriya Bal Puraskar 2021** from children, individuals and institutions.

- The **Awards are given by the President** of India in the **week preceding Republic Day** (26th January) **every year.**

Key Points

- The Pradhan Mantri Rashtriya Bal Puraskar is given under **two categories**:
  - Bal Shakti Puraskar, and
  - Bal Kalyan Puraskar.
- **Bal Shakti Puraskar:**

Note:

drishti

○ **Recognition:** It is given by the Government of India every year to recognize exceptional achievements of **children** in various fields i.e., **innovation, scholastic achievements, social service, arts & culture, sports** and **bravery.**

○ **Eligibility:** A child who is an **Indian Citizen** and **residing in India** and is **between 5-18 years of age.**

○ **Award:** A medal, a cash prize of Rs. 1,00,000, book vouchers worth Rs.10,000, a certificate and citation.

○ **Background:** It was **instituted in 1996 as the National Child Award for Exceptional Achievement**, renamed from 2018 as Bal Shakti Puraskar.

➤ **Bal Kalyan Puraskar:**

○ **Recognition:** It is given as recognition to **Individuals and Institutions**, who have made an outstanding contribution towards service for children in the field of **child development, child protection** and **child welfare.**

○ **Eligibility:**

● An individual **who is an Indian Citizen and residing in India** and should have attained the **age of 18 years or above** (as on 31st August of respective year). S/he should have **worked for the cause of children for not less than 7 years.**

● The **institution should not be entirely funded by the government** and should have been in the **field of child welfare for 10 years** and performing consistently in the field.

○ **Award: Three awards** are given in **each of the two categories** - Individual and Institution - along with **cash prizes** (Rs. 1,00, 000 and Rs. 5,00, 000 respectively).

○ **Background:** It was **instituted in 1979 as the National Child Welfare Awards**, renamed from 2018 as Bal Kalyan Puraskar.

China Launches Warship for Pakistan

Why In News

Recently, China has launched the first of the four advanced naval warships it is building for Pakistan.

➤ This is the first ship of **Type-054 class frigate**.

➤ The Type-054A is **roughly the same size** as the Indian Navy's existing **Talwar class** of frigates, purchased from Russia.

Key Points

➤ **Type-054 class is equipped with:**

○ Latest surface, subsurface, anti-air weapons,

○ Combat management system,

○ Sensors

➤ **Comparing with Talwar Class:**

○ **Size and Dimensions:** The Type-054A and Talwar class **displace approximately 4,000 tonnes** and have a length of around **130 metres**.

○ **Stealth Level:** Both classes, designed the 1990s, have features **to reduce their radar and infra-red signatures**.

○ Missile System:

● The Type-054A uses a **surface-to-air missile** system called the **HQ-16**, which experts claim is derived from the **Russian Shtil missile**, already in service on the Talwar class frigates.

● Type-054A has an **advantage over the existing Talwar class** ships as the former uses a **vertical launch system** (VLS).

■ The **vertical launch system** allows the launch of **multiple missiles simultaneously**.

● Talwar class frigates use an **older 'single-arm' launcher** that can fire only **one missile at a time**.

● The Talwar class ships use the **supersonic Klub and Brahmos missiles**, and are regarded to have better anti-ship capabilities than the Type-054A class.

○ **Radar:** The HQ-16, which relies on **'passive' radar** to detect targets, is considered **inferior to the new Indo-Israeli Barak-8 missile**.

➤ The relatively small size of the Type-054AP frigates means there is **little scope to mount** heavier radars and longer-range anti-aircraft or anti-ship weapons.

➤ While the new Type-054AP frigates will be the most capable ships in the Pakistan Navy, they are **not expected to significantly alter the balance of power in the region**, given Pakistan's limitations in airborne anti-submarine capabilities.

INS Viraat

Why in News

Indian Naval Ship (INS) Viraat **will be scrapped** at a ship breaking yard at Alang in Gujarat soon.

Note:

➢ The **decision** to scrap INS Viraat was taken in **2019.**

Key Points

➢ INS Viraat holds the **Guinness World Record** for being the **longest serving warship of the world.**

➢ Viraat, a **Centaur class aircraft carrier** weighing 27,800 tonnes, served in the **British Navy** as **HMS Hermes for 25 years** from November 1959 to April 1984. It was **commissioned into the Indian Navy in May 1987** after refurbishment.

❍ The Centaur class of aircraft carriers of the Royal Navy was the **last of the light fleet carrier designs** started during the closing years of **World War II (1939-45).**

➢ Viraat played a major role in **Operation Jupiter** in 1989 during the Sri Lankan Peacekeeping operation. It also saw action during **Op Parakram** in 2001-2002, post the terrorist attack on Parliament.

➢ The indigenous Advance Light Helicopters **'Dhruv'** and the Russian twin rotor **Kamov-31** have also operated from the ship.

➢ It was **decommissioned in March 2017,** and the **Navy had been incurring expenditure** since then on its upkeep, such as the provision of electricity and water, and repairs. It was also **taking up space in the crowded Naval dockyard.**

➢ There had been demands from various quarters to not let Viraat go the way of **Vikrant, India's first carrier** that was eventually scrapped.

❍ In 2014, **INS Vikrant,** which played a role in the 1971 war with Pakistan was broken down in Mumbai.

➢ However, several attempts by the Navy to preserve the carrier, by converting it into a museum or by other means, failed.

❍ The **vessel could not be handed over to any state government** because of lack of "self-sustaining financially complete" proposal to preserve it. The state governments of Maharashtra and Andhra Pradesh had planned to preserve the aircraft carrier (in the form of a museum).

➢ India is currently doing with only the **44,500-tonne INS Vikramaditya,** the refurbished Admiral Gorshkov inducted from Russia in November 2013.

❍ The trials of the first indigenous aircraft carrier **(IAC-I, to be named as INS Vikrant)** being built at the Cochin Shipyard have been derailed by the pandemic.

❍ The government's approval for a third carrier, the 65,000-tonne **IAC-II (tentatively christened INS Vishal)** has been pending since May 2015.

❍ India needs aircraft carriers to secure the seas of the Indo-Pacific, to maintain peace, secure trade routes, and provide security to the region.

Odisha's Bonda Tribe

Why in News

Recently, four people from the **Bonda tribal community** have tested positive for the **Covid-19.**

Key Points

➢ **PVTGs:** Bondas are one of the 13 **Particularly Vulnerable Tribal Groups (PVTGs) found in Odisha.**

❍ There are a **total of 75 PVTGs in India**.

➢ **Austroasiatic Tribes:** Bondas are members of a group of **Austroasiatic tribes**, they are believed to be **part of the first wave of migration out of Africa** about 60,000 years ago. They are the **first forest settlers in India.**

➢ **Culture:** The Bondas have **retained their identity and culture** despite external interventions over the years.

❍ **Primarily forest dwellers**, the Bondas used to hunt and forage for food in the wild.

❍ **Matriarchal society-** The women prefer to marry men who are younger by at least 5-10 years, so that the men can earn for them when they grow old.

❍ **Unique dressing style**- Women are semi clad and wear various types of rings and necklaces around their bodies, while the men carry lethal bows and arrows.

❍ **Language-** They continue to speak in their **language, Remo,** which comes under the Austroasiatic language belonging to the Mundari group.

● The Mundari group of languages are spoken by **Munda people.**

➢ **Division:** The Bonda tribe is divided into two groups based on their settlement:

❍ The **Upper Bondas** living in the inaccessible forests.

❍ The **Lower Bondas** in the plains.

➢ **Tribes in Odisha:**

Note:

- ❍ Odisha is home to 62 tribal communities — the **largest diverse groups of tribal population in India.**
  - ● Thirteen of them are PVTGs — **Bonda, Birhor, Chuktia Bhunjia, Didayi, Dungaria Kandha, Hill Kharia, Juang, Kutia Kondh, Lanjia Saora, Lodha, Mankirdia, Paudi Bhuyan and Saora.**
- ❍ Tribal populations are found in the **entire seven districts of Kandhamal, Mayurbhanj, Sundargarh, Nabarangpur, Koraput, Malkangiri and Rayagada,** and in parts of six other districts.

■■■

Note:

Key Points

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