# May 2020

## M A G A Z I N E

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## 1. MSME Ideas Portal

**Why in News?**

- Union Ministry MSME launched Bank of Schemes, Ideas, Innovation and Research portal (http://ideas.msme.gov.in/) on MSMEs.

**About**

- The Portal gives access to **all Schemes of Union, State and UT Governments**.
- It has the provision for **uploading Ideas**, **Innovations** & **Researches in the sector**.
- The portal has unique features of not only crowd sourcing of Ideas, but also **evaluation and rating the ideas** by crowd sourcing.
- It can also **facilitate inflow of venture capital**, **foreign collaboration** etc.
- Users who have idea, innovation or Research with him/her can share it on this platform which will be **reviewed by the concerned Officer** and **publish them for public view**. Registered users can rate these ideas (Crowd sourcing) and **venture capitalist can connect with user having idea, innovation and research**.
- The portal has the facility to indicate the **stage of Idea** (Concept, Prototype or Commercialized) to **make more user friendly.**
- Papers and photo related to Idea and **Video and Social Media links** can also be uploaded.
- Benefits ➔
    o This portal will help the MSMEs in a big way through **information sharing**. It will help in the research activities like those in rural tribal knowledge, skills will get a chance for spreading their knowledge
    o The portal will benefit the potential entrepreneurs as **one stop compendium of Ideas**, **innovation and research ready for commercialization.**
    o The Rating of Ideas can be seen publicly which will <u>help in decision making</u>.

## 2. Global Energy Review 2020: IEA

**Why in News?**

- International Energy Agency (IEA) has released its Global Energy Review 2020 report.

**Key point from report**

- Global energy demand is **projected to fall 6% in 2020**.
- **Renewables** were the only source that **posted a growth in demand**, driven by larger installed capacity and priority dispatch.
- **Global coal demand** was **hit the hardest**, falling by almost **8%** compared with the first quarter of 2019.
- The **projected 6% decline** would be more than seven times the impact of the 2008 financial crisis on global energy demand, reversing the growth of global energy demand over the last five years.
- According to the report **advanced economies** will experience the **greatest declines in energy demand in 2020**.
- In **India**, energy demand would **decline for the first time**, following on from low demand growth in 2019.

- According to IEA, if **lockdowns are shorter** and the **global recovery is more rapid**, the decline in global energy demand across 2020 could be **limited to 3.8 per cent**, which is still four times the decline during the global financial crisis.
- Worldwide emissions of carbon dioxide ➔ are forecast to **drop about 8% in 2020**, a record annual decline that's due to COVID-19 lockdowns.

👉 **About International Energy Agency**

- Status ➔ IEA is an **autonomous intergovernmental organisation**.
- Established ➔ **1974** as per framework of the OECD,
- MISSION ➔ To **ensure reliable, affordable and clean energy** for its member countries and beyond.
- Headquarters (Secretariat) ➔ **Paris, France**.
- Roles and functions ➔
    o To help its members **respond to major oil supply disruptions**, a role it continues to fulfill today.
    o Also **tracking** and **analyzing global key energy trends**, promoting sound energy policy, and fostering multinational energy technology cooperation.
- **India** became an **associate member** of the International Energy Agency in 2017.
- Reports ➔
    o Global Energy & CO2 Status Report.
    o World Energy Outlook.
    o World Energy Statistics.
    o World Energy Balances.
    o Energy Technology Perspectives.

## 3. Bharatmarket

**Why in News?**

- Traders' body Confederation of All India Traders (CAIT) will soon launch a national e-commerce marketplace 'bharatmarket' for all retail traders in collaboration with several technology partners.

**About Bharatmarket**

- What it is? ➔ **online e-commerce marketplace**, will integrate the capabilities of various technology companies to provide **end-to-end services** in the logistics and supply chains from manufacturers to end consumers, including deliveries at home.
- The e-commerce portal will include a **nationwide participation by retailers**.
- Aim ➔ to **bring 95% of retail traders** onboard the platform, who would exclusively run the portal.
- Significance ➔
    o CAIT enrolls about **1 crore retailers** on this e-marketplace **in 2020** and makes it the **world's largest** and **most-unique e-marketplace ever**.
    o This will be an **effective way to get essential commodities to consumers** during the lockdown period and within containment zones.

👉 **The Confederation of All India Traders (CAIT)**

- It is an **Apex body for the trading community of India** comprising prominent Trade Bodies of different States and having access to more than 20 thousand such as <u>Trade Federations</u>/ <u>Associations</u>/<u>Chambers</u> across the Country.
- Established ➔ **1990**.
- Aim and objective ➔ **development of trade and traders in the country** and has brilliantly evolved the understanding and coordination amongst traders throughout the Country.

## 4. Saras Collection

**Why in News?**

- The Union Minister for Rural Development and Panchayati Raj launched "The Saras Collection" on the Government e Marketplace (GeM) portal recently.

**About**

- Aim ➔
    - To **showcase daily utility products** made by rural self-help groups (SHGs).
    - To provide SHGs in rural areas with **market access to Central and State Government buyers**.
- It is a **unique initiative of GeM** and **DAY-NRLM** (Deen Dayal Antyodaya Yojana-National Rural Livelihoods Mission) **Ministry of Rural Development**.
- Under this initiative, the **SHG sellers** will be able to list their products in **5 product categories**, namely (i) **handicrafts**, (ii) **handloom and textiles**, (iii) **office accessories**, (iv) **grocery and pantry**, and (v) **personal care and hygiene.**
- GeM will provide **dashboards** for functionaries at the national, state, district and block level to provide them **real time information** about the **number of products uploaded by SHGs**
- In addition, Government buyers shall be **sensitized through system generated messages/ alerts** in the Marketplace about availability of SHG products on the portal.
- Significance ➔ The Saras Collection will **do away with intermediaries in the supply chain**, thus **ensuring better prices** for SHGs and spurring employment opportunities at the local level.

## 5. Impact of energy efficiency measures for the year 2018-19

**Why in News?**

- Recently the Ministry of Power and New & Renewable Energy released a report on the "Impact of energy efficiency measures for the year 2018-19".

**About**

- Agency Involved ➔ The report was prepared by a **third-party agency PWC Ltd**, who was engaged by Bureau of Energy efficiency (**BEE**).
- Objective ➔ To **evaluate the performance and impact of all the key energy efficiency programmes in India**, in terms of total energy saved and the related reduction in the $CO_2$ emissions.

👉 **Findings**

- **India** has **reduced the energy intensity** by **20% compared to 2005** levels which is a very good performance indeed.
- Implementation of **various energy efficiency schemes** have led to
  - Total electricity savings -> 113.16 Billion Units (9.39% of the net electricity consumption)
  - Energy savings (electrical + thermal) -> 16.54 Mtoe (million Tonne of Oil Equivalent) (2.84% of the net total energy consumption)
  - Total energy savings(both demand side and supply side sectors of the economy) -> 23.73 Mtoe (2.69% of the total primary energy supply).
- These efforts have also contributed in **reducing 151.74 Million Tonnes** of CO2 emissions.

👉 **Bureau of Energy Efficiency (BEE)**

- Status ➔ The BEE is a **statutory body** established through Energy Conservation Act, 2001 under the **Ministry of Power**, Government of India.
- Functions ➔ It **assists in developing policies and strategies** with the primary objective of reducing the energy intensity of the Indian economy.
- BEE coordinates with designated consumers, designated agencies, and other organizations to **identify** and **utilize** the **existing resources** and **infrastructure**, in performing its functions.

## 9. Co-Op banks come under Sarfaesi Act: Supreme Court

**Why in News?**

- The Securitization and Reconstruction of Financial Assets and Enforcement of Security Act of 2002 (SARFAESI Act) applies to cooperative banks as well, a five-judge Constitution bench has ruled.

**About Sarfaesi Act**

- Banks utilize Sarfaesi Act as an **effective tool for bad loans** (Non-Performing Asset) recovery and is effective against secured loans.
- It promotes the setting up of **asset reconstruction companies** (ARCs) and **asset securitization companies** (SCs) to deal with NPAs accumulated with the banks and financial institutions.
- It **provides the bank with the power** to take over and auction authority of residential or commercial properties, to recover the loan.

| Securitization of financial assets and issue of security receipts | Reconstruction of Financial assets | Enforcement of security interest | Other functions |
|---|---|---|---|
| Acquire financial assets by issuing debentures or bonds or by agreement. Realize the same and redeem the security receipts issued to the QBs | Take measures for proper management, sale, debt restructuring, settlement, or take possession subject to RBI guidelines from time to time | Enforce security interest by the secured creditor without the intervention of the court | Act as an agent of banks or FIs for recovery;Act as manager of the secured assets appointed by the lender; or Act as receiver appointed by the court |

👉 **About Co-operative Banks**

- What it is? ➔ Co-operative banks are **financial entities** established on a **co-operative basis** and **belonging to their members.**
- This means that the **customers** of a co-operative bank are **also its owners**.
- Services ➔ These banks provide a wide range of **regular banking** and **financial services**.

- Co-operative Banks are broadly classified into **Urban** and **Rural co-operative banks** based on their region of operation.
- Who oversees these banks? ➔
  - Registered under the **States Cooperative Societies Act**.
  - They also come under the regulatory ambit of the **Reserve Bank of India**
- Significance of Cooperative Banks ➔
  - It has an **extensive branch network** all over the country, making credit easily available even to rural areas. It accounts for **67 per cent of total rural credit**.
  - It provides **support to small and marginal farmers** for buying inputs, storage and marketing assistance.

## 7. CHAMPIONS PORTAL

### Why in News?

- Union Ministry of MSME has launched CHAMPIONS portal www.Champions.gov.in, a Technology driven Control Room-Cum-Management Information System.

### About

- What it is? ➔ It is a **technology driven Control Room-Cum-Management Information System** which utilises modern information and communication technology (ICT) tools.
- Name ➔ The name **CHAMPIONS** stands here for Creation and Harmonious Application of Modern Processes for Increasing the Output and National Strength.
- Aim ➔ The system utilising modern ICT tools is aimed at **assisting Indian MSMEs march into big league** as National and Global CHAMPIONS.
- Features ➔ The portal is for **making the smaller units big** by solving their grievances, encouraging, supporting, helping and handholding. It is a **real one-stop-shop solution** of MSME Ministry.
- Hub & Spoke Model ➔ As part of the system a network of control rooms is created in a **Hub & Spoke Model**. The **Hub is situated in New Delhi** in the Secretary MSME's office. The **spokes will be in the States** in various offices and institutions of Ministry.
- The portal is also **fully integrated** with the Government's main grievances portal **CPGRAMS** and **MSME Ministry's web based mechanisms**.

👉 **About Centralized Public Grievance Redress and Monitoring System (CPGRAMS):**

- What is it? ➔ It is an **online web-enabled system** developed by National Informatics Centre in association with Directorate of Public Grievances (**DPG**) and Department of Administrative Reforms and Public Grievances (**DARPG**).
- Aim ➔ To **enable submission of grievances by the aggrieved citizens to Ministries or departments** who scrutinize and take action for speedy and favourable redress of these grievances.

## 8. GLOBAL ENERGY TRANSITION INDEX

### Why in News?

- India has moved up two places to rank 74th on a global energy transition index released by World Economic Forum (WEF).

## About Index

- Released by ➜ This annual list is compiled by Geneva-based **World Economic Forum** (WEF).
- Criteria ➜ It has **ranked 115 economies** on how well they are able to balance energy security and access with environmental sustainability and affordability.

### 👉 Key Findings

- Top 3 countries ➜ **Sweden** is ranked first followed by **Switzerland and Finland**.
- India ➜ India has moved up two positions to **rank 74th** with **improvements in all three dimensions** of the energy triangle namely: **Economic development and growth**, **Energy access and security**, **Environmental sustainability**.
- Impact of Covid-19 ➜ Covid-19 risks cancelling out recent progress in transitioning to clean energy, with **unprecedented falls in demand**, **price volatility** and **pressure to quickly mitigate socioeconomic costs** placing the near-term trajectory of the transition in doubt.

### 👉 WORLD ECONOMIC FORUM (WEF)

- Status ➜ **Not-for-profit organization**. Under the Swiss Host-State Act, it is recognized as an International Institution for **Public-Private Cooperation**.
- HQ ➜ **Cologny-Geneva, Switzerland**.
- Founded in ➜ **1971**.
- Mission ➜ **Improving the state of the world** by engaging business, political, academic, and other leaders of society to shape global, regional, and industry agendas.
- Davos meet ➜
  - Annually, it **organizes a meeting** at the **end of January in Davos**, a mountain resort in Graubünden, in the eastern Alps region of Switzerland.
  - The meeting brings **together some 2,500 top business leaders**, **international political leaders**, economists for up to four days to discuss the pressing global issues.
- Reports published ➜
  - Global Competitiveness Report,
  - Global Information Technology Report,
  - Global Gender Gap Report,
  - Global Risks Report,
  - Global Travel and Tourism Report,
  - Financial Development Report and
  - Global Enabling Trade Report.

## 9. Palm Oil import from Malaysia

### Why in News?

- Recently India resumed its palm oil import from Malaysia after a ban of the nearly four-month period with an order worth 200,000 tonnes crude palm oil.

## About Palm Oil

- What is it? ➔ It's an edible vegetable oil that comes from the fruit of oil palm trees, having the scientific name **Elaeis guineensis**.
- Palm oil is an **incredibly efficient crop**, producing more oil per land area than any other equivalent vegetable oil crop fulfilling **35% of the world's vegetable oil demand** on just **10% of the land**.
- **Two types** of oil can be produced, **crude palm oil** comes and **palm kernel oil**, of which crude has more demand.
- Palm oil is an **extremely versatile oil** that has many different properties and is present in nearly 50 per cent packaged.
- Currently, **Indonesia** and **Malaysia** make up over **85% of global supply** but there are 42 other countries that also produce palm oil.
- Background ➔ India restricted and put a ban on the import of palm oil early this year, following the **adverse remarks** of the then **Prime Minister of Malaysia Mahathir Mohamad** on the **new citizenship law and the Kashmir issue**.

### About Palm Oil Trade

- India is the **world's largest edible oil importer**
- India has a **demand** of **more than 9 million tonnes** of palm oil a year, which is nearly two-thirds of total import of edible oil.
- Out of total palm oil imports, a **record 4.4 million tonnes** palm oil was imported **from Malaysia** in 2019 making it **second to Indonesia** in terms of trade volume.

## 10. Pradhan Mantri Matsya Sampada Yojana

### Why in News?

- Union Cabinet approved for the implementation of the Pradhan Mantri Matsya Sampada Yojana(PMMSY).

### About PMMSY

- Aim ➔ To bring about a **Blue Revolution** through **sustainable** and **responsible development** of the fisheries sector in India.
- With the scheme, **highest ever investment** of **Rs. 20050 crores** are being made in the fisheries sector.
- Objectives ➔
  - Augmenting fish production and productivity at a sustained average annual growth rate of about **9%** to achieve a **target of 22 million metric tons by 2024-25**.

- o Creation of <u>direct gainful employment</u> opportunities to about **15 lakh fishers**, fish farmers, fish workers, fish vendors etc.
- o **Doubling of fishers, fish farmers** and **fish workers incomes by 2024**.
- Duration ➔ **5 years** from FY 2020-21 to FY 2024-25 in all States/Union Territories.
- Nodal Ministry ➔ **Department of Fisheries**, **Ministry of Animal Husbandry**, Dairying and Fisheries.
- Implementation strategy ➔
  - o The PMMSY will be implemented as an **umbrella scheme** with two separate components namely:
    - ▪ (a) **Central Sector Scheme** and
    - ▪ (b) **Centrally Sponsored Scheme**
  - o Majority of the activities under the Scheme would be implemented with the **active participation of States/UTs**.
  - o A **well-structured implementation framework** would be established for the effective planning and implementation of PMMSY.
  - o For optimal outcomes, '**Cluster or area-based approach'** would be followed with requisite **forward and backward linkages** and **end to end solutions**.

## 11. Emergency Credit Line Guarantee Scheme (ECLGS)

### Why in News?

- The Union Cabinet has given its approval for the Emergency Credit Line Guarantee Scheme (ECLGS) for MSMEs and MUDRA borrowers.

### About ECLGS

- Aim ➔ To **mitigate the economic distress** being faced by about **45 lakh MSMEs** by providing them additional funding of up to **Rs 3 lakh crore** in the form of a fully guaranteed emergency credit line.
- Duration ➔ The loan will be provided for <u>four years</u> with a **moratorium of one year** on the principal amount.
- Eligibility ➔ All MSME borrower accounts with outstanding credit of up to **Rs.25 crore** as on 29th February,2020 and with **annual turnover of up to Rs.100 crore** would be eligible for the scheme. They can get up to **20% fresh loans** of their **entire outstanding credit**.
- Guarantee ➔ National Credit Guarantee Trustee Company (**NCGTC**) will provide **100% guarantee** against losses on loans advanced to eligible MSMEs and MUDRA borrowers.
  - o **No Guarantee Fee** shall be charged by NCGTC from the Member Lending Institutions (MLIs) under the Scheme.
- Interest Rates ➔ The Interest rates under the Scheme are capped at <u>9.25% for banks</u> and <u>financial institutions</u> and at **14% for non-banking financial companies** (NBFCs).
- Benefits of the scheme ➔
- The scheme aims to **mitigate the distress caused by COVID-19** and the **consequent lockdown**, which has severely impacted manufacturing and other activities in the MSME sector.
- The scheme is expected to provide credit to the **sector at a low cost**, thereby enabling MSMEs to **meet their operational liabilities** and **restart their businesses**.

## 12. Scheme for formalization of Micro Food Processing Enterprises

**Why in News?**

- The Union Cabinet has given its approval to a new Centrally Sponsored Scheme – "Scheme for Formalization of Micro food processing Enterprises (FME)" for the Unorganized Sector on All India basis.

**About FME**

- Fund ➔ The **Centrally Sponsored Scheme**. Expenditure to be shared by the Government of India and States at **60:40**.
- **2,00,000 micro-enterprises** are to be assisted with **credit linked subsidies**.
- Duration ➔ Scheme will be implemented over a **5 year period from 2020-21 to 2024-25**.
- **Cluster approach**.
- The Scheme will majorly **focus on perishables**.
- Objectives ➔
  - Increase in access to finance by micro food processing units.
  - Increase in revenues of target enterprises.
  - Enhanced compliance with food quality and safety standards.
  - Strengthening capacities of support systems.
  - Transition from the unorganized sector to the formal sector.
  - Special focus on women entrepreneurs and Aspirational districts.
  - Encourage Waste to Wealth activities.
  - Focus on minor forest produce in Tribal Districts.
- Administrative and Implementation Mechanisms ➔
  - The Scheme would be monitored at Centre by an **Inter-Ministerial Empowered Committee** (IMEC) under the **Chairmanship of Minister, FPI**.
  - A **State/ UT Level Committee** (SLC) **chaired by the Chief Secretary** will monitor and sanction/ recommend proposals for expansion of micro units and setting up of new units by the SHGs/ FPOs/ Cooperatives.
  - The **States/ UTs** will prepare Annual Action Plans covering various activities for implementation of the scheme, which will be approved by Government of India.
  - A **third-party evaluation** and **mid-term review mechanism** would be built in the programme.
  - **National level portal** would be set-up wherein the applicants/ individual enterprise could apply to participate in the Scheme. All the scheme activities would be undertaken on the National portal.
- Benefits of the scheme ➔
  - Nearly **eight lakh micro- enterprises** will benefit through access to information, better exposure and formalization.
  - It will enable them to **formalize, grow** and **become competitive**.
  - The project is likely to **generate nine lakh skilled** and **semi-skilled jobs**.
  - **Better integration** with organized markets.
  - **Increased access to common services** like sorting, grading, processing, packaging, storage etc.

## 13. Coir Geo Textile

**Why in News?**

- Recently, the National Rural Infrastructure Development Agency (NRIDA) has announced that coir geo textiles will be used for construction of rural roads under the Pradhan Mantri Gram Sadak Yojana (PMGSY-III).

**About PMGSY New Technology Guidelines**

- As per the PMGSY new technology guidelines for road construction, **15% length** in each batch of proposals, is to be **constructed using new technologies**.
- **Out of this 5% roads** are to be constructed using **IRC accredited technology**.
- The IRC has now **accredited coir Geo textiles** for construction of **rural roads**. As per these instructions, **5% length of the rural roads** under PMGSY-III will be constructed **using Coir Geo textiles**.
- The decision opens up a **huge market potential** for Coir Geo-textiles in the Country and will be a boon to the Covid-19 hit Coir Industry.

### 👉 Coir Geo Textile

- What is it? ➔ Coir is a **100% natural fiber**, obtained from a **renewable source** – the **coconut husk**.
- No chemical treatment Coir ➔ Geo Textile is naturally **resistant to rot, molds and moisture**, and free from any microbial attack hence it needs no chemical treatment.
- Benefits ➔
  - It has a **permeable**, **natural** and **strong fabric with high durability**.
  - It **protects the land surface** and promotes quick vegetation.
  - It is totally **biodegradable**, and helps in **soil stabilisation**.
  - It can dissipate the energy of flowing water and **absorb the excess solar radiation**.

## 14. Status Paper on Government Debt

**Why in News?**

- Recently, the Central Government has released the Ninth Edition of the "Status Paper on the Government Debt".

**About**

- The Central Government has been bringing-out a Status Paper on Government Debt **since 2010-11**.
- The document also contains **Debt Management Strategy** of the Central Government for the financial years **from 2019-20 to 2021-22** which will guide the borrowing plan of the Government.

### 👉 Key Takeaways

- Central Government's Debt as a percentage of Gross Domestic Product (**GDP**) has dropped marginally **by 0.1% from 45.8% in fiscal 2017-18** to **45.7% in fiscal 2018-19**.
- General government Debt to GDP ratio which includes the combined debt of the Centre and states **declined by 0.1% from 68.7% in March 2018 to 68.6% in March,2019**.

- Government's finances were largely protected from currency risks as external debt stood at **2.7% of GDP** or **Rs 5.12 lakh crore in FY19**
- Domestic Debt is around **94.1%** of the **Centre's liabilities in FY19**.Out of this, **84.4%** of the domestic debt was made up of **marketable securities**.
- The tenure of the **longest security was 37 years**.

## 15. Financial Stability and Development Council (FSDC)

### Why in News?

- Union Minister for Finance has chaired the 22nd Meeting of the Financial Stability and Development Council (FSDC).

### About FSDC

- It is a **non-statutory apex level body** setup in 2010 on the recommendations of **Raghuram Rajan committee** (2008).
- Objectives ➔ To **strengthen and institutionalize the mechanism** for maintaining financial stability, enhancing inter-regulatory coordination and promoting financial sector development.
- Functions ➔ It is charged with **financial literacy**, **financial inclusion** and **macro prudential supervision of the economy**, including the functioning of large financial conglomerates.
- Chairman ➔ **Union Finance minister**.
- Members➔ a) **Heads of Financial Sector Regulators** (RBI, SEBI, PFRDA & IRDA) b) **Secretaries of various Departments** c) **Chief Economic Adviser** d) Minister of state responsible for the Department of Economic Affairs (**DEA**) e) Chairperson of the Insolvency and Bankruptcy Board of India (**IBBI**) among others.

## 16. SHARED RESPONSIBILITY, GLOBAL SOLIDARITY REPORT

### Why in News?

- Recently, the United Nations Secretary General, released a report titled "Shared Responsibility, Global Solidarity: Responding to socio-economic impacts of Covid-19", a call to action, for the immediate health response required to tackle the many social and economic dimensions of crisis.

### About

- Report includes estimates from a host of UN agencies, with findings such as According to the UN International Labour Organization (**ILO), five to 25 million jobs will be eradicated**,
- **UN Conference on Trade and Development (UNCTAD)** projected a **30 to 40 % downward pressure on global foreign direct investment** flows while the World Tourism Organization (**UNWTO) saw a 20–30 per cent decline** in international arrivals.
- The International Telecommunication Union (ITU) anticipated that **3.6 billion people will be offline** and the UNESCO forecast that 1.5 billion students out of school.

## 17. UPDATE OF UNCTAD'S TRADE AND DEVELOPMENT REPORT

### Why in News?

- UNCTAD recently released an update on Trade and Development Report, 2019 titled From the Great Lockdown to the Great Meltdown: Developing Country Debt in the Time of Covid-19.

## About United Nations Conference on Trade and Development (UNCTAD)

- UNCTAD is a **permanent intergovernmental body** established by the United Nations General Assembly in 1964 with **headquarters in Geneva, Switzerland**.
- It has 195 member countries **including India**.
- **UNCTAD is part of the UN Secretariat** and is also part of the United Nations Development Group.
- Trade and Development **Report is issued every year by UNCTAD**.
- It analyses **current economic trend and major policy issues** of international concern and makes suggestions for addressing these issues at various levels.
- It publishes reports such as:
    - World Investment Report
    - Commodities and Development Report
    - Digital Economy Report
    - The Least Developed Countries Report

## 18. SPECIAL LIQUIDITY FACILITY FOR MUTUAL FUNDS (SLF-MF)

### Why in News?

- To ease liquidity pressures on mutual funds, Reserve Bank of India recently announced a special liquidity facility of ₹50,000 crore for mutual funds.

### About Features of the Special Liquidity Facility for Mutual Funds (SLF-MF)

- The SLF-MF is on-tap and open-ended and will be **available to all LAF (liquidity adjustment facility) eligible banks**.
- **On-tap** is a term used to describe a feature where **something is available whenever needed** as against during a particular period.
- **Open-ended** implies that there is **no restriction on the amounts** that banks are allowed to borrow.
- **LAF eligible banks**: **All the Scheduled Commercial Banks** are eligible to participate in LAF auctions **except the Regional Rural Banks**.
- Under it, the RBI shall **conduct repo operations of 90 days** tenor at the fixed repo rate.
- It means that **RBI will lend money to banks at current repo** rate of 4.4%.
- Funds availed under the SLF-MF **must be used by banks exclusively for meeting the liquidity requirements of MFs** by extending loans to MFs and undertaking outright purchase of repos against the collateral of investment grade corporate bonds, commercial papers (CPs), debentures and certificates of Deposit (CDs) held by MFs.

### Regulatory benefits offered to the banks under the scheme:

- Liquidity support availed would be **eligible to be classified as held to maturity (HTM)** even if total investment in that category over-shoots RBI limits.

- **Held-to-maturity (HTM)** securities are purchased to be owned until maturity. A company's management might invest in a bond that they plan to hold to maturity. As a result, there are different accounting treatments for held-to-maturity securities compared to securities that are to be liquidated in the short term.
- Advantage of HTM segment is that banks **do not have to account for mark-to-market losses in case bond values deteriorate further.**

## 19. WTO PEACE CLAUSE

### Why in News?

- India has invoked the peace clause of WTO for exceeding the ceiling on support it can offer farmers for rice, marking the first time any country that has used this clause.

### About

- To India informed WTO that the value of its rice production was $43.67 billion in 2018-19 and it gave subsidies worth $5 billion which is **11.46% of the value of production**.
- However, the **Agreement on Agriculture** (AoA) under WTO has a **limit pegged at 10%** for developing countries, which is a de-minimis level. **De minimis level** is minimal amount of domestic support that is allowed even though they distort trade.

### Peace clause

- The peace clause **protects a developing country's** food procurement programmes against action from WTO members **in case subsidy ceilings are breached**.



**Green Box Subsidies:**
1. Non-distorting subsidies.
2. For R&D.
3. Environmental protection and regional development programmes.
4. No limit.

**Blue Box Subsidies:**
1. Not directly linked to increasing production.
2. Given for livestock.
3. No limit.

**Amber Box subsidies:**
1. Directly contributing in increasing production.
2. Example: Fertilisers, Seeds, Government procurement etc.
3. Most distorting.
4. Limitations imposed by WTO.

- It also provides that **Green Box domestic support** measures **cannot be the subject of countervailing duty action** or other subsidy action under the WTO Agreement on Subsidies and Countervailing Measures. However, other domestic support measures which are in conformity with the provisions of the Agreement on Agriculture may be the subject of countervailing duty actions.
- Hence, under the present 'Peace Clause', developing countries can provide **WTO-prohibited subsidies to farmers** without inviting any dispute under the Agreement on Agriculture.

# Environment

## 1. Bengaluru Bannerghatta Biological Park

**Why in News?**

- Bengaluru's Bannerghatta Biological Park (BBBP), Karnataka has come out with the Animal Adoption Programme to conserve wildlife and allow people to adopt animals at the zoo during the lockdown period.

**About BBBP**

- Location ➔ near **Bangalore, Karnataka** in the hills of the Anekal range.
- Recognition ➔ declared as a **National Park in 1974** & in 2002, It is the **first biological park** in India to have a fenced forested elephant sanctuary.
- In 2006, India's **first butterfly enclosure** was inaugurated at the park.
- Flora ➔ Scrub type (dry deciduous forests), southern tropical dry deciduous forests, southern tropical moist mixed forests.
- Fauna ➔ Elephant, Chital, Barking Deer, Striped Hyena, Porcupine, Peafowl, Grey Jungle Fowl, Partridges, crocodiles, tortoise, python, varieties of butterflies, etc.

## 2. Sariska Tiger reserve

**Why in News?**

- The Ministry of Tourism's Dekho Apna Desh webinar featured a presentation and virtual tour of 'Destination-Sariska Tiger reserve.

**About**

- Location ➔ Situated in Alwar District of **Rajasthan** in lap of Aravali hills.
- Timeline ➔ It got a status of **wildlife reserve in year 1955** and in year **1978** it became **Sariska Tiger Reserve**.
- The former hunting reserve of the **Maharaja of Alwar**, the Sariska valley is home to a **variety of flora and fauna**.
- Wild life ➔ comprises Royal Bengal Tiger, Leopard, Jungle Cat, Caracal, Striped Hyena, Golden Jackal, Chital, Sambhar, Blue Bull, Chinkara and Four Horned antelope.
- Flora ➔ Dhok tree, Salar, Kadaya, Dhak, Gol, Ber, Khair, Bargad, Arjun, Gugal and Bamboo etc.
- Significance ➔ The place is a **paradise for bird lovers** as it shelters a large population of Indian peafowl, crested serpent eagles, sand grouse, golden-backed woodpeckers, great Indian horned owls, tree pies, vultures and many others.
- It is the **first reserve in the world with successfully relocated tigers**. It is an important biodiversity area in the Northern Aravalli leopard and wildlife corridor.

👉 **About DekhoApnaDesh**

- Features ➔
  - Under this, a **series of webinars** will showcase **the diverse and remarkable history and culture of India** through a documentary series on various cities.

- It will be **including** various monuments, cuisine, arts, dance forms, natural landscapes, festivals and many other aspects of the rich Indian civilization.
- Objective ➔ to **create awareness about** and **promote various tourism destinations of India** – including the lesser-known destinations and lesser-known facets of popular destinations.
- The webinar will be available on the **Ministry's social media handles- IncredibleIndia on Instagram and Facebook**.

## 3. Antibodies from llamas

### Why in News?

- A group of researchers from University of Texas have found an antibody in llamas that could be a potential treatment for COVID-19.

### About Antibodies from llamas

- The researchers linked two copies of a special kind of **antibody produced by llamas** and created a **new antibody**, which **binds tightly** to a **key protein on the novel coronavirus SARS-CoV2.**
- This protein is the spike protein, **shaped like a corona** (crown) that gives coronaviruses their name.
- It is also the protein that **allows the virus to break into human and animal cells**.
- Initial tests with the new antibody and cultured cells indicated the **antibody blocks viruses** with this **spike protein from infecting cells.**
- The paper is **undergoing final proofreading**.

### 👉 About Llamas

- Llamas is a **mammal of the camel family**
- found in ➔ South America.
- Benefits ➔ It is used as a **domestic beast of burden** and a **source of wool and meat**.
- IUCN status ➔ **Least concern.**

## 4. Study of flowering plant endemism of Northern Western Ghats

### Why in News

- Scientists at the Agharkar Research Institute (ARI), Pune, an autonomous institute of the Department of Science and Technology have come up with plant data of the Northern Western Ghats.

### Finding

- The study found that the Northern Western Ghats has **181 local endemic plant species**, including four monospecific genera.
- They have found that a majority of the endemic species are **therophytes**, which complete their life cycle in a short period during monsoon.

- A notable geographical feature of the Northern Western Ghats is the **presence of plateaus** and **cliffs** that **display maximum endemic species**, unlike forests.
- It is the region of rapid diversification of specific herbaceous endemic genera like **Ceropegia, Glyphochloa, Dipcadi, and Eriocaulon.**
- One such specie is- **Abutilon ranadei**
  - Abutilon ranadei is a **shrub**, measuring 2.5-3.5 m high and bears **star-shaped hairs**.
  - It is a **Critically Endangered** endemic species from the northern Western Ghats.

👉 **Western Ghats**

- It traverses the states of **Kerala, Tamil Nadu, Karnataka, Goa, Maharashtra and Gujarat**.
- It is a **UNESCO World Heritage Site** and is one of the eight "**hottest hot-spots**" of biological diversity in the world.
- It is sometimes called the **Great Escarpment of India**.
- It contains a **large proportion of the country's flora and fauna**, many of which are only found in India.
- They **influence Indian monsoon weather patterns**.
- Highest Peak - **Anamudi** in Kerala and average elevation of ghats is around 1200m.
- They are **continuous** in nature unlike Eastren Ghats.
- According to UNESCO, the **Western Ghats are older than the Himalayas**.

## 5. TIGER POPULATION IN SUNDERBANS

### Why in News?

- According to the latest estimation of tiger numbers in the Indian Sunderbans by the West Bengal Forest Department, the tiger count for the year 2019-20 rose to 96, from 88 in 2018-19.

### About SUNDERBANS

- Location ➔ Sundarbans is a vast contiguous mangrove forest ecosystem in the **coastal region of Bay of Bengal** spread **over India and Bangladesh** on the delta of the Ganges, Brahmaputra and Meghna rivers.
- The Sunderbans Delta is the **only mangrove forest in the world inhabited by tigers**.
- Indian Sundarbans constitute over **60%** of the country's **total mangrove forest area**.
- Indian Sundarbans has been recognised as UNESCO World Heritage Site in 1987 and '**Wetland of International Importance**' under the Ramsar Convention in January, 2019.



- Life in these mangrove forests ➔ It is home to rare and globally threatened species, such as **the Northern River Terrapin**, **Royal Bengal Tiger**, **Irrawaddy Dolphin**, **and the Fishing Cat.**
- Estimation of the number of tigers in the Sunderbans has always been a challenge because of the **difficult terrain** that comprises **dense mangrove forests**, with creeks and rivulets, and **floods twice** a day during the high tides.

## 6. Black Panther in Netravali Sanctuary

**Why in News**?

- A black panther was spotted in Goa's Netravali Sanctuary.

**About**

- A black panther is the **melanistic colour variant of any Panthera**, particularly of the leopard in **Asia and Africa**, and the **jaguar in the Americas**.
- It is as shy as a normal leopard and **very difficult to detect**.
- Habitat ➜ It is mostly found in **densely forested areas of southern India**.
- Areas where black panther has been **spotted earlier** ➜
    - Periyar Tiger Reserve (Kerala)
    - Bhadra Tiger Reserve, Dandeli-Anshi Tiger Reserve and Kabini Wildlife Sanctuary (Karnataka)
    - Achanakmar Tiger Reserve (Chhattisgarh)
    - Mhadei Wildlife Sanctuary (Goa)
    - Mudumalai Tiger Reserve (Tamil Nadu)

👉 **About Netravali Wildlife Sanctuary**

- Location ➜ Netravali Wildlife Sanctuary is located in **South Eastern Goa** and constitutes one of the vital corridors of the Western Ghats.
- Bounded By ➜ **Cotigao wildlife sanctuary** on the eastern side and **Bhagwan Mahaveer Sanctuary** and **Mollem National Park** on the northern side.
- River ➜ **Netravali** or **Neturli** is an important tributary of River Zuari, which originates in the sanctuary.
- Important waterfalls ➜ namely, **Savari** and **Mainapi**.
- Forests ➜ mostly consist of moist deciduous vegetation interspersed with evergreen and semi-evergreen habitat.
- Fauna ➜ **Leopard**, **Giant Squirrel**, **Mouse Deer**, **Nilgiri Wood Pigeon and Ceylon Frogmouth**.
- Other Protected Areas in Goa ➜
    - Cotigao Wildlife Sanctuary
    - Mhadei Wildlife Sanctuary
    - Bhagwan Mahaveer Sanctuary
    - Bondla Wildlife Sanctuary
    - Mollem National Park
    - Dr Salim Ali Bird Sanctuary

## 7. Olive Ridley Turtles

**Why in News**?

- Mass hatching of Olive Ridley turtles began at Odisha's Rushikulya rookery, a major nesting site of these marine turtles.

**About**

- What is it? ➔ The Olive ridley turtles are the **smallest** and **most abundant of all sea turtles** found in the world.
- These turtles are **carnivores** and get their name from their olive colored carapace.
- Habitat ➔ They are found in warm waters of the Pacific, Atlantic and Indian oceans.
- Migration ➔ They **migrate thousands of kilometers** between feeding and mating grounds in the course of a year.
- Arribada (Mass Nesting) ➔ They are best known for their **unique mass nesting** called **Arribada**, where thousands of females come together on the same beach to lay eggs.
- They lay their eggs over a period of **five to seven days** in conical nests about one and a half feet deep which they dig with their hind flippers.
- Protection Status ➔
  - o IUCN Red List: **Vulnerable**
  - o CITES: **Appendix** I
  - o Indian Wildlife (Protection) Act, 1972: **Schedule I**
- Step Taken for Conservation ➔ To reduce accidental killing in India, the Odisha government has made it **mandatory for trawls to use Turtle Excluder Devices (TEDs)**, a net specially designed with an exit cover which allows the turtles to escape while retaining the catch.
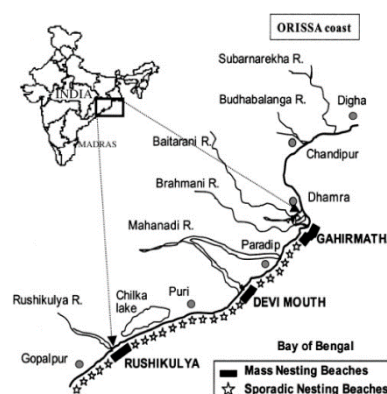
## 8. Sal Forest Tortoise

### Why in News?

- Over 90% of the potential distribution of the Sal forest tortoise falls outside current protected area's network.

### About Sal Forest Tortoise

- Scientific name ➔ **Indotestudo elongate**.
- Common name ➔ **Elongated tortoise**, Yellow Tortoise and Sal forest tortoise.
- Distribution ➔ It is a species of tortoise found in **Southeast Asia** and **parts of the Indian Subcontinent**, particularly **Northeast India**.
- Physical description ➔ These up to **1 foot-long tortoises** have elongated somewhat **narrow carapaces** and **yellow heads**. Shells are typically a pale tannish-yellow to caramel color, with blotches of black.
- IUCN Red List Status ➔ **Critically Endangered**.
- Legally protected ➔ **Schedule IV** of the Indian Wildlife (Protection) Act, 1972 as amended up to 2006.
- Population ➔ According to the IUCN the population of the species may have **fallen by about 80%** in the last three generations (90 years).
- Threats ➔ It is **heavily hunted for food** and collected both for local use, such as decorative masks, and international wildlife trade. In china, a mixture, made by grinding up the tortoise's shell, also serves as an aphrodisiac.

## 9. Global Forest Resources Assessment 2020

### Why in News?

- Global Forest Resources Assessment 2020 has been released by the United Nations Food and Agriculture Organization (FAO).

### Key Finding

- Declined in Forest area ➔ The **world lost 178 mha of forest since 1990**, an area the size of Libya.
- The rate of forest loss ➔ also **declined** due to the growth of sustainable management. The rate of forest loss in 2015-2020 declined to an estimated **10 million hectares (mha)**, down from 12 million hectares (mha) in 2010-2015.
- Highest loss ➔ Africa had the largest annual rate of net forest loss in 2010–2020, **at 3.9 mha**, followed by **South America, at 2.6 mha**.
- highest gains ➔ **Asia** had the highest net gain of forest area in 2010–2020, followed by **Oceania** and **Europe**.

### 👉 Food and Agriculture Organization (FAO)

- Status ➔ FAO is a **specialized agency of the United Nations** that leads international efforts to defeat hunger.
- Members ➔ With **over 194 member states**, FAO works in over 130 countries worldwide. It believes that everyone can play a part in ending hunger.
- Headquarters ➔ **Rome, Italy**
- Formation ➔ **1945**
- Role ➔ **Serving both developed and developing countries**, FAO acts as a neutral forum where all nations meet as equals to negotiate arguments and debate policy.
- The agency is directed by the Conference of Member Nations, which **meets every two years** to **review** the work carried out by the organization and to **Work and Budget for the next two-year period**.

## 10. Gharial

### Why in News?

- Recently Government of Uttar Pradesh has released Gharials (Gavialis gangeticus) in the Ghaghara river for the conservation and protection in natural habitat.

### About

- Scientific name ➔ **Gavialis Gangeticu**.
- The male gharial has a **distinctive boss at the end of the snout**, which resembles an earthenware pot.
- Habitat ➔ They are a **fresh-water crocodile**. They live in **deep fast-flowing rivers**.
- Distribution ➔ Globally Gharial is found only in **India and Nepal**.
- **India**: Girwa River, Chambal River, Ken River, Son River, Mahanadi River, Ramganga River
- **Nepal**: Rapti-Narayani River
- Status ➔
  - **Critically Endangered**— IUCN Red List
  - Listed under **Schedule I** of the Wild Life (Protection) Act, 1972.

- o Listed on **Appendix I** of Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).
- Conservation Efforts ➔ **Breeding Centres** of Kukrail Gharial Rehabilitation Centre in Lucknow, Uttar Pradesh, **National Chambal Sanctuary** (Gharial Eco Park, Madhya Pradesh).
- Threats ➔ **Hunting for skins**, **trophies** and **indigenous medicine**, and their eggs collected for consumption, Decrease of riverine habitat as dams, barrages, irrigation canals and artificial embankments were built; siltation and sand-mining changed river courses.
- Other than this India has two species of Crocodilians namely ➔
  - o **Mugger crocodile** (Crocodylus palustris): IUCN- **Vulnerable** - found **throughout the Indian subcontinent**
  - o **Saltwater crocodile** (Crocodylus porosus): IUCN- **Least Concern** - **eastern coast of India**.

👉 **Ghaghara River**

- It acts as an important **aquatic corridor for gharials** in Uttar Pradesh.
- Source ➔ Its source is near **Gurla Mandhata peak**, south of Mansarovar in Tibet.
- Other Name ➔ It is known as the **Karnaili in Western Nepal**.
- Tributaries ➔ It's important tributaries are the **Sarda**, the **Sarju** (Ayodhya is located on its bank) and the **Rapti**.

## 11. Troglomyces twitteri

**Why in News**?

- A new species has just been identified on an old image on Twitter. It is named as Troglomyces twitteri.

**About**

- What is it? ➔ Troglomyces twitteri is a **type of parasitic fungus**.
- It belongs to an order called **Laboulbeniales** — tiny fungal parasites that **attack insects and millipedes**.
- Where does it live? ➔ These fungi live on the **outside of host organisms**; in this case, on the **reproductive organs of millipedes.**
- History ➔ Laboulbeniales were **first discovered** in the **middle of the 19th century**.
- Foundational work on the Laboulbeniales was **completed by the American mycologist Roland Thaxter** (1858–1932).

## 12. Pinanga Andamanensis

**Why in News**?

- A rare palm endemic to the South Andaman Island is finding a second home at Thiruvananthapuram-based Jawaharlal Nehru Tropical Botanic Garden and Research Institute (JNTBGRI).

**About Pinanga Andamanensis**

- Name ➔ The name is derived from '**Penang**', the **modern-day Malaysian state**.

- Status ➔ Pinanga andamanensis is an IUCN **critically endangered** species and one of the least known among the **endemic palms of the Andaman Islands**.
- Location ➔ Its entire population of some **600 specimens naturally occurs** only in a **tiny, evergreen forest pocket in South Andaman's Mount Harriet National Park.**
- History ➔ It was originally described by the Italian botanist **Odoardo Beccari in 1934**.
- His description was based on an old herbarium specimen collected by **E.H. Man**, a **late-19th century** assistant superintendent in the Andaman administration.
- After that **first identification**, it was thought to be **extinct till 1992**.
- Uses ➔ Its uses are yet to be understood fully. But this palm holds promise as an avenue tree for gardens, pavements and homesteads.
- Threats ➔ **Natural calamities** such as cyclones, earthquakes and rampaging by wild elephants among others.

👉 **Mount Harriet National Park**

- Location ➔ It is located in the **south of the Andaman and Nicobar islands**.
- **Mount Harriet ➔** is the **third-highest peak in the Andaman and Nicobar archipelago** next to **Saddle Peak** in North Andaman and **Mount Thuillier** in Great Nicobar.
- The park is covered with **evergreen forest pockets**.
- Flora and faunal species ➔ **andaman wild pigs**, **saltwater crocodiles**, **butterflies** and **palm trees**.

## 13. Garbage-free star rating for the cities

**Why in News**?

- Union Housing and Urban Affairs Ministry has announced the results of garbage-free star rating for the cities.

**About**

- Aim ➔ To **institutionalize a mechanism** for cities to achieve **Garbage Free status** and to **motivate cities** to achieve higher degrees of cleanliness.
- Launched by ➔ **MoHUA in January 2018**.
- Components ➔ The protocol includes components such as **cleanliness of drains & water bodies**, **plastic waste management, managing construction & demolition waste** which are critical drivers for achieving garbage free cities.
- It is one of the various initiatives which intends to make **Swachh Bharat Mission-Urban (SBM-U)** as a successful project.
- Assessment under the protocol ➔
  - To ensure that the Protocol has a SMART framework, the MoHUA has developed a **three-stage assessment process**.
  - In the **first stage, ULBs populate** their progress data **on the portal** along with **supporting documents** within a particular timeframe.
  - The second stage involves a **desktop assessment** by a **third-party agency** selected and **appointed by MoHUA**.
  - Claims of cities that clear the desktop assessment are then **verified** through **independent field-level observations** in the **third stage**.

- Significance ➔ This certification is an acknowledgement of the clean status of Urban Local Bodies and **strengthened SWM systems** as well as a **mark of trust** and **reliability** akin to universally known standards.

| 5 Star Cities | | |
|---|---|---|
| ULB Name | State | Final Rating |
| Ambikapur | Chhattisgarh | 5 Star |
| Rajkot | Gujarat | 5 Star |
| Surat | Gujarat | 5 Star |
| Mysore | Karnataka | 5 Star |
| Indore | Madhya Pradesh | 5 Star |
| Navi Mumbai | Maharashtra | 5 Star |

- Performance of cities ➔
  - Accordingly, as per the 2020 survey, **6 cities** have been **graded 5 stars**, **65 Cities rated 3 Star** and **70 Cities rated 1 Star**.

## 14. Dibru-Saikhowa National Park

**Why in News**?

- The Ministry of Environment, Forest and Climate Change(MoEFCC) has given environmental clearance to Oil India to drill in Dibru-Saikhowa National Park from outside.

**About**

- Dibru-Saikhowa is a **National Park** as well as a **Biosphere Reserve**.
- Location ➔ situated in the **south bank of the river Brahmaputra** in the extreme east of Assam state in India.
- The park is **bounded by the Brahmaputra** and **Lohit Rivers** in the north and **Dibru river** in the south.
- Vegetation ➔ **Moist mixed semi-evergreen forests**, **moist mixed deciduous forests**, **canebrakes** and **grasslands**. It is also the largest salix swamp forest in north-eastern India.
- Famed for **Ferral horses**, a total **36 species of mammals** and above **400 species of birds** have so far been recorded from the Dibru-Saikhowa National Park.
- Fauna ➔ **36 species of mammals** have so far been recorded – Tiger, Elephant, Leopard, Jungle Cat, Bears, Small Indian Civet, Squirrels, Gangetic Dolphin, Slow Loris, Assamese Macague, Rhesus Macaque, Capped Langur, Hoolock Gibbon, Wild Pigs, Sambar, Barking Deer, Water Buffalo, Feral Horses etc.

## 15. International Day for Biological Diversity

**Why in News**?

- The International Day for Biological Diversity is observed on 22nd May every year to increase understanding and awareness of biodiversity issues.

**About**

- 2020 Theme ➔ **Our solutions are in nature**.
- Timeline ➔ The first International Day for Biological Diversity was created by UN General Assembly in **1993** to **mark the adoption of the text of the Convention of Biological Diversity**.

👉 **Convention on Biological Diversity**

- Timeline ➔ Signed at the **1992 Rio Earth Summit**, it is dedicated to promoting sustainable development.
- Parties ➔ There are **196 parties** to the convention.
- Status ➔ It is a **legally binding treaty**.
- Objectives ➔

- o **conservation of biological diversity**,
- o **sustainable use** of the components of biological diversity
- o **fair and equitable sharing** of the benefits arising out of the utilization of genetic resources
- Convention Protocols:
  - o **Cartagena Protocol on Biosafety ➔**
    - ▪ It aims to ensure the **safe handling**, **transport** and **use of living modified organisms** (LMOs) resulting from modern biotechnology that may have adverse effects on biological diversity.
    - ▪ It was **adopted in 2000** and **entered into force in 2003**.
  - o **Nagoya Protocol ➔**
    - ▪ It aims at **sharing the benefits** arising from the **utilization of genetic resources** in a fair and equitable way.
    - ▪ It entered into **force in 2014**.

## 16. NEW PLANT SPECIES FOUND IN WESTERN GHATS

**Why in News**?

- A team of scientists of the Botanical Survey of India (BSI) have reported the discovery of three new plant species in the evergreen forest patches of the southern end of the Western Ghats in Kerala and Tamil Nadu.

### About Eugenia sphaerocarpa

- It belongs to the **Myrtaceae** or **Rose apple family**.
- Location ➔ A good population of Eugenia sphaerocarpa is growing in the **Kakkayam area** of the **Malabar wildlife sanctuary in Kerala** above 800m.
- Characteristics ➔ The epithet '**sphaerocarpa**' denotes to the **large, showy lemon-yellow spherical fruits**. The fruits of Eugenia species are known for their **palatability**.

### 👉 About Goniothalamus sericeus

- It belongs to the **Annonaceae family of custard apple**.
- Location ➔ A small number of Goniothalamus sericeus plants has been found in the **Kanyakumari wildlife sanctuary in Tamil Nadu** at an altitude of 1400m.
- Characteristics ➔ Mature flowers with characteristic **greenish-yellow** to **beige petals** are **fragrant** while the fruits are very showy and an attractive golden yellow in colour. Sericeus refers to the **presence of dense silky hair on petals.**

### 👉 About Memecylon nervosum

- It belongs to the **Melastomataceae** (Kayamboo or Kaasavu in local parlance) **family**.
- Location ➔ A small population of nervosum was also found at the **Kanyakumari wildlife sanctuary in Tamil Nadu** at an altitude between 700-900m.
- Characteristics ➔ The species has showy **purplish-blue flowers** and **mauve to purplish red fruits**. Nervosum refers to the presence of **prominently raised lateral** and **intramarginal veins** on the lower surface of the lamina.

Eugenia sphaerocarpa.


Goniothalamus sericeus.


Memecylon nervosum.

## 17. Cicadas

**Why in News?**

- A brood of periodical cicadas, noisy insects that breed underground for as long as 13-17 years are expected to emerge into some states on the east coast of the US this year.

**About Cicadas**



- What is it? ➔ Cicadas are insects that spend most of their **lives underground** and **emerge from the soil mainly to mate.**
- life span ➔ Once out of the ground, their life span is **fairly short**, somewhere **between two-four weeks**.
- Where? ➔ The insects are found in the **America's** as well as **New Zealand** and **Australia**.
- What happens when cicadas emerge? ➔
  - After emerging from the ground in billions, the cicadas **shed their exoskeletons** or **outer skins** to take their **winged form**.
  - Male cicadas "**sing**" to **attract the females**, the collective chorus of these male cicadas is **very loud** and can **reach up to 100 decibels**, which is as much as a powered lawnmower.
  - After mating, the **females lay their eggs** in **twigs** that are **½ to ¼ in diameter**. One female is capable of laying over 400 eggs in 40-50 different sites. The eggs remain in the twigs for **six to ten weeks** before they hatch and after hatching the nymphs fall to the ground where they **burrow 6-18 inches underground** to **feed** and **emerge 13 or 17 years later**, depending on their grouping.
- Concerns ➔
  - The **egg-laying** by the cicadas causes **significant damage to small twigs**.
  - They **damage many ornamental** and **hardwood trees**, especially newly planted fruit and ornamental trees such as apple, dogwood, peach, cherry and pear among others, which are the most seriously damaged.

## 18. Puntius Sanctus fish

**Why in News?**

- Velankanni in Tamil Nadu has thrown up a new species of small freshwater fish.

**About**

- What is it? ➔ It is a new species of **small freshwater fish** of the **family Cyprinidae**.
- Name ➔ The silver-hued fish has been named Puntius Sanctus — '**Sanctus**' is **Latin for holy** — after the **popular pilgrim town**.
- The Puntius species are known locally as '**Paral**' in **Kerala** and '**Kende**' in **Tamil Nadu**.
- The species is small in size and grows to a **length of 7 cm**, it bears lateral line scales and pre-dorsal scales.
- It found to use both as **food** and **as an aquarium draw**.
- Physical characteristics ➔ included a **protractible mouth**, a **pair of maxillary barbels** (a sensory organ near the snout), **24-25 lateral line scales** and **10 pre-dorsal scales**.
- They are **purely freshwater fishes**.

👉 **Zoological Survey of India**

- It is a subordinate organization of the **Ministry of Environment, Forest and Climate Change** and was **established in 1916**.
- Functions ➔ It is a **national centre for faunistic survey and exploration of the resources** leading to the advancement of knowledge on the exceptionally rich faunal diversity of the country.
- Headquarters ➔ at **Kolkata** and 16 regional stations.
- International Commission of Zoological Nomenclature
- Functions ➔ It regulates a **uniform system of zoological nomenclature** ensuring that every animal has a unique and universally accepted scientific name.

## 19. Dehing Patkai wildlife sanctuary

**Why in News**?

- Concerns have been expressed over the diversion of 98.59 hectares land of Saleki proposed reserve forest, which is a part of Dehing Patkai elephant reserve, for a coal-mining project in Upper Assam.

**About**

- The Dehing Patkai Wildlife Sanctuary is also known as the **Jeypore Rainforest**.
- Location ➔ It is located in the districts of Dibrugarh and **Tinsukia in Assam**.
- **Dehing is the name of the river** that flows through this forest and **Patkai is the hill** at the foot of which the sanctuary lies.
- Flora ➔ It is a deciduous rainforest interspersed with **semi-evergreen** and **lush green flora**.
- Fauna ➔ **Chinese pangolin, Flying fox, Rhesus macaque, Assamese macaque, Himalayan black bear, Lesser Adjutant Stork, White and Slender-billed Vulture, Leopard, Golden Cat, Jungle Cat and Marbled Cat**.
- Ethnic groups living in the area ➔ include the **indigenous Assamese communities**, particularly Tai Phake, Khamyang, Khampti, Singpho, Nocte, Ahom, Kaibarta, Moran and Motok, Burmese, and non-indigenous Nepali people.

## 20. Charru mussel (Mytella strigata)

**Why in News?**

- An invasive mussel native to the South and Central American coasts is spreading quickly in the backwaters of Kerala.

**About**

- It is an invasive species native to the **South** and **Central Americas**.
- Why in India? ➔ The rapid spread of the Charru mussel (Mytella strigata) may have been **triggered by Cyclone Ockhi** which struck the region in 2017.
- It can **tolerate** a **wide variety of environmental conditions** (salinity, water temperatures and oxygen levels) which helps them thrive in the new areas they colonise.
- Characteristics ➔ Externally, the Charru mussel resembles the **green** and **brown mussels** (kallummekka in Malayalam) but is much **smaller in size**. Its **colour varies from black to brown**, **purple** or **dark green**.
- Worst-hit ➔ **Ashtamudi La**ke, a Ramsar site in Kollam district.
- Threats posed ➔
  - Though this smaller mussel is edible, the **overall economic loss** and **impact on biodiversity** are **much bigger**, it is pointed out.
  - It is throwing out **other mussel** and **clam species** and **threatening the livelihoods of fishermen** engaged in shrimp fisheries.

## 21. Dugong

**Why in News?**

- The dugong, commonly known as the sea cow, is fighting for its survival in Indian waters experts have said on the eve of 'World Dugong Day' on May 28, 2020.

**About**

- Dugongs are **mammals**, which means they **give birth to live young** and then produce milk and nurse them.
- It is the **flagship animal** of Gulf of Mannar Marine National Park.
- The dugong is the only **strictly herbivorous** marine mammal.
- Habitat ➔ It is a species of sea cow **found throughout the warm latitudes** of the Indian and western Pacific Oceans.
- According to a 2013 survey report of the Zoological Survey of India (ZSI), there were only about 200 dugongs in the **Gulf of Mannar in Tamil Nadu**, the **Andaman and Nicobar Islands** and the **Gulf of Kutch in Gujarat**.
- Conservation status ➔
  - **Vulnerable** on the IUCN Red List
  - **Schedule** I of the Wild (Life) Protection Act, 1972.

- o The Convention on International Trade in Endangered Species (**CITES**) **limits** or **bans the trade of derived products.**
- Threat
    - o These languid animals make an **easy target for coastal hunters**.
    - o They were long sought for their **meat, oil, skin, bones, and teeth**.

## 22. India's first observatory for the mammals

**Why in News**?

- The Bihar government is setting up India's first observatory for the mammals in Bhagalpur district at the Vikramshila Gangetic Dolphin Sanctuary.

**About**

- Benefit ➔ The structural design of the observatory is such that it will **promote eco-tourism**.
- Location ➔ The observatory is being built on the **Sultanganj-Aguwani Ghat bridge over the Ganga**.
- **No bad or adverse impact** on the **river's ecology** as the observatory is being constructed on a bridge over the Ganga.
- Features ➔ The observatory building will be **transparent, with glass from all sides** to ensure people can watch the dolphins.
- It will give people an **incentive to visit the place** and see dolphins in the sanctuary without disturbing them.
- Another dolphin observatory ➔ There are also suggestions to build another dolphin observatory at the **confluence of the Ganga and Punpun rivers near Fatuha in Patna**, about 5-15 dolphins are visible at the site at all times of the year.

## 23. Asian Koel

**Why in News**?

- Asian Koel, the state bird of Puducherry, is now breeding across Delhi-NCR.

**About Asian Koel**

- IUCN status ➔ **Least Concerned.**
- The Asian Koel (Eudynamys scolopaceus) is a member of the **cuckoo order of birds**, the **Cuculiformes**.
- Habitat ➔ It is found in the **Indian Subcontinent, China, and Southeast Asia**.
- Superspecies ➔ It forms a **superspecies** with the closely related **black-billed koels**, **Indian cuckoos**, and **Pacific koels** which are sometimes treated as subspecies.
- The Asian Koel like many of its related cuckoo kin is a **brood parasite** that **lays its eggs in the nests of crows** and **other host**s, who raise its young.
- Key Features ➔
    - o Sexual dimorphism is evident, where **males** are a **glossy black** with a **greenish sheen** to their bodies and **females** are **brown with white dots** on their wings and heavy streaking on their head and throat.

- o In the **<u>bird world</u>**, the **<u>males</u>** are generally **<u>more pleasant looking</u>** than the females, considering they woo females.

# Science & Technology

## 1. Natural Product Based Alzheimer Inhibitor

**Why in News?**

- Scientists from Jawaharlal Nehru Centre For Advanced Scientific Research (JNCASR) have modified the structure of Berberine into Ber-D to use as a Alzheimer's inhibitor.

**About Berberine**

- What is it? ➔ A **natural** and **cheap product** similar to curcumin, available commercially
- Property ➔ is **poorly soluble** and **toxic to cells**. So they modified berberine to Ber-D, which is a soluble (aqueous), antioxidant.

> 👉 **About JNCASR**
>
> Status ➔ **Autonomous institute** under the Department of Science & Technology (DST), Govt. of India.

### About Ber-D

- A **soluble (aqueous), antioxidant**. It is a **multifunctional inhibitor** of multifaceted **amyloid toxicity** of Alzheimer's disease.
- Amyloid ➔ a protein that is deposited in the liver, kidneys, spleen, or other tissues in certain diseases.
- In case of Alzheimer's disease, Amyloid beta (Aβ) accumulates in the brain.
- The structural attributes of Ber-D are such that they **prevent the generation of reactive oxygen species** (ROS) and **rescue biomacromolecules** from oxidative damage.
- These attributes make Ber-D a promising candidate for developing **effective therapeutics** to treat multifaceted toxicity of Alzheimer's disease.



**ALZHEIMER'S DISEASE**

*Alzheimer's Disease* is the most common form of dementia. It is most common in older individuals. Alzheimer's disease is an irreversible, progressive brain disease that slowly destroys memory and thinking skills and eventually the ability to carry out the simplest tasks of daily living

**Symptoms**

**Pre-dementia**
Characterized by forgetting things occasionally

**Early dementia:**
Characterized by minor short-term memory loss.

**Middle dementia:**
Characterized by difficulty remembering the recent events and also having trouble in recognizing their family members and friends.

**Late dementia:**
Characterized by loss of the ability to walk, talk, and care for themselves Instead of communicating, they may repeatedly cry out, groan, or scream.

## 2. Atulya: Microwave Steriliser

**Why in News?**

- Recently, the Defence Institute of Advanced Technology has developed a microwave steriliser named as 'Atulya' to disintegrate Covid-19 virus.

**About**

- In this Sterilizer, the virus gets disintegrated by differential heating in the range of **56 to 600 degree Celsius temperatures.**
- The product is **cost effective solution**, which can be operated in portable or fixed installations.
- This system was tested for human/operator safety and has been **found to be safe**.
- Depending upon size and shape of various objects, time of sterilisation is **from 30 seconds to one minute**.
- Approximate weight of the system is 3 kilogrammes and it can be **used for non-metallic objects only**.

> 👉 **Sterilisation refers to any process that eliminates, removes, kills, or deactivates all forms of life (in particular referring to microorganisms such as fungi, bacteria, viruses, spores, etc.) and other biological agents.**

👉 **About DRDO**

- DRDO is an agency of the Government of India, charged with the military's research and development.
- Formed ➜ **1958**.
- Governance ➜ under the administrative control of the **Ministry of Defence**, Government of India.
- Headquartered ➜ **New Delhi, India**.

## 3. Demo-2 Mission

### Why in News?

- NASA and SpaceX are all set for the Demo-2 mission which is scheduled for 27th May, 2020 from the Kennedy Space Center in Cape Canaveral, Florida, USA.

### About

- Purpose ➜ Demo-2 Mission will **send astronauts to the International Space Station** (ISS).
- Under the Mission, astronauts **Robert Behnken** and **Douglas Hurley** will dock with ISS and then remain there for between **one to four months**, depending on the time of next mission.
- It is a **part of NASA's Commercial Crew Program**, which is a partnership to develop and fly human space transportation systems.
- **SpaceX spacecraft** named **Crew Dragon** will be **used** to take them into space.
- It will be only the fifth class of US spacecraft to take human beings into orbit, after the Mercury, Gemini, Apollo and Space Shuttle programs.
- SpaceX ➜ Which is a **private company** founded by **Elon Musk**, who is the founder of Tesla. Established itself as the leader in the private space sector mainly due to its reusable rocket, **the Falcon 9**
- NASA classifies the impact of space flight on humans in **5 broad criteria** known as **5 Hazards**. These are:
    1. Radiation
    2. Isolation and confinement
    3. Distance from Earth
    4. Gravity
    5. Hostile/closed environments

## 4. eCovSens

**Why in News?**

- Researchers from the National Institute of Animal Biotechnology (NIAB), Hyderabad, have developed a biosensor that can detect the novel coronavirus in saliva samples.

**About eCovSens**

- What it is? ➔ A **portable biosensor** that can be used to detect the presence of novel coronavirus antigens in human saliva **within 30 seconds using just 20 microlitres** of the sample.
- Biosensors have been **currently used across the world** to **detect toxins**, **narcotic drugs**, and are also considered as a **reliable tool** to detect infectious diseases.
- How it works? ➔ The device consists of a **carbon electrode** and the **coronavirus antibody**. The antibody is capable of binding with the spike protein found on the outer layer of the virus. An **electrical signal** is **generated when the antigen and antibody binds**.
- Significance ➔ The Government of India is **currently facing various challenges** such as **shortage of testing kits**, **lack of adequate testing**, etc. Therefore, implementing these technologies in larger scale will **help solve the challenges faced by the Government.**

👉 **National Institute of Animal Biotechnology**

- Established ➔ **2010**.
- Parent organization ➔ by **Department of Biotechnology**, Ministry of Science and Technology.
- Aim ➔ The institute aims to **provide translational research** that involves livestock and beneficial to mank

## 5. Corona-Killer 100

**Why in News?**

- The drones are in use for a vast range of tasks such as spraying disinfectants, sanitization, surveillance to ensure the social distancing measures in-place.

**About**

- Corona-Killer 100 is an **automated disinfecting Unmanned Aerial Vehicle** (UAV).
- Developed by ➔ **Garuda Aerospace - an ISO- 9001 company**.
- Background ➔ Already been deployed for disinfecting areas in **Chandigarh and Varanasi**.
- It was selected as one of the top 10 **socio-economic innovations by NITI Aayog in 2016**.
- Structure ➔
  - It is equipped with **fuel efficient motors** that enable the drone to be deployed for 12 hours a day.
  - It also consists of **patented autopilot technology**, **advanced flight controller systems**.
- The features include ➔
  - Payload capacity of **15-20 litres**,
  - Flight duration of **40-45 minutes &**
  - Maximum ceiling **height of 450 feet** which is sufficient to disinfect tall buildings across India.
  - Each drone can **cover 20 km a day**.

- Significance ➔
  - Drone operations are **faster, longer & safer** than manual spraying by workers who can become potential carriers of COVID-19.
  - Also, drones can **reach heights** which are **not possible through manual spraying**.
  - Drone based Swacch Bharat campaign to Clean India on a regular basis **will prevent the spread of COVID-19,** future pandemics & communicable diseases arising due to unhygienic conditions.

## 6. African Swine Fever (ASF)

### Why in News?

- Assam is gearing up to tackle African Swine Fever. Around 2,800 pigs have died in Assam since February due to the virus making the state the epicentre of ASF in India.

### About

- What is it? ➔ African swine fever (ASF) is a **highly contagious haemorrhagic viral disease** (severe illness, sometimes associated with bleeding), of domestic and wild pigs.
- It is **clinically indistinguishable** from **classical swine fever** (CSF) and must be differentially diagnosed in the laboratory.
- Cause ➔ It is caused by African swine fever virus, member of the **Asfarviridae family**.
- Transmission ➔ As with CSF, transmission can occur either **directly contact of sick and healthy animals**, and **indirectly through contaminated feed**, or on contaminated clothing, vehicles or as other fomites.
- Geographical Distribution ➔ ASF is present in wild and/or domestic pigs in regions of **Asia, Europe** and **Africa**. ASFV is **endemic to sub-Saharan Africa**. It has been seen in South America and the Caribbean but has been eradicated.
- Public health risk ➔ ASF is **not a risk to human health** as it is relatively harmless.
- Symptoms ➔ **Fever** (40.5-42°C) **vomiting**, **diarrhoea**, **reddening of the skin at extremities**, **chest** and **abdomen**, **anorexia** and **abortion**.
- Prevention ➔ There is **no published treatment** or vaccine for ASF.

## 7. Hypoxia

### Why in News?

- Recently medical practitioners have reported a condition called silent or happy hypoxia, in which Covid-19 patients have extremely low blood oxygen levels, yet they do not show signs of breathlessness.

### About Hypoxia

- What is it? ➔ Hypoxia is a condition wherein there is **not enough oxygen available to the blood and body tissues**.
- Hypoxia can either be generalised, **affecting the whole body**, or **local, affecting a region of the body**.
- Normal arterial oxygen is approximately **75 to 100 millimetres of mercury** (mm Hg), and normal pulse oximeter readings usually range from **95 to 100 per cent**. **Values under 90 per cent are considered low**.

- Symptoms ➔ When levels fall below 90%, patients could begin **experiencing lethargy**, **confusion** or **mental disruptions** because of insufficient quantities of oxygen reaching the brain.
- Levels below 80% can result in **damage to vital organs**.

👉 **About silent hypoxia**

- What it is? ➔ is a form of oxygen deprivation that is **harder to detect** than regular hypoxia. Patients appear to be **less in distress**.
- **Covid pneumonia**, a **serious medical condition** found in severe Covid-19 patients, is preceded by silent hypoxia.
- Symptoms ➔ In many cases, Covid-19 patients with silent hypoxia did **not exhibit symptoms** such as shortness of breath or coughing until their oxygen fell to acutely low levels, at which point there was a risk of acute respiratory distress (**ARDS**) and **organ failure**.
- Reasons ➔
    o The reason why people are left feeling breathless is not because of the fall in oxygen levels itself but due to **the rise in carbon dioxide levels** that occur at the same time, when lungs are not able to expel this gas efficiently.
    o A medical device called a **pulse oximeter** can be used in the **early detection of silent hypoxia**.

👉 **About Pulse Oximeter**

- Application ➔ It is a test used to **measure the oxygen level** (oxygen saturation) of the blood.
- How ➔ The device measures the **saturation of oxygen in red blood cells** (RBCs) and can be attached to a person's fingers, toes, nose, feet, ears or forehead.
- Benefits ➔ The method is **easy and painless** and the device can be **reused or disposed of after use**.

## 8. 'The Long March 5B' rocket

**Why in News?**

- China has successfully launched a new rocket and prototype spacecraft in a major test of the country's ambitions to operate a permanent space station and send astronauts to the Moon.

**About**

- What is it? ➔ Long March 5 or Chang Zheng 5 is a **Chinese heavy-lift launch system**.
- Developed by ➔ the China Academy of Launch Vehicle Technology (**CALT**).
- Features ➔ It is the first Chinese launch vehicle designed from the ground up to focus on **non-hypergolic liquid rocket propellants.**
- Payload capacities ➔ The maximum payload capacities of the base variant are **25,000 kilograms** to Low Earth Orbit and **14,000 kilograms** to Geosynchronous Transfer Orbit.
- Weighs ➔ **849 tonnes**.
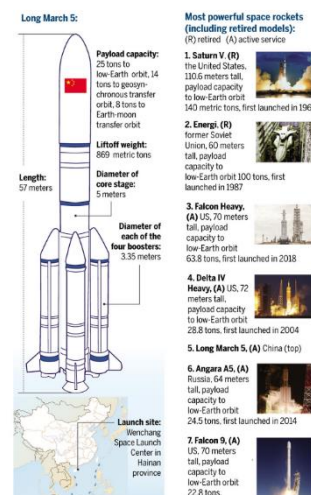
- Prototype Spaceship ➔ is expected to **transport astronauts** to a space station that China plans to **complete by 2022** — and **eventually to the Moon**. It will have a capacity for **a crew of six**.

👉 **About International Space Station (ISS)**

- What ➔ is a **habitable artificial satellite** - the single largest man-made structure in low earth orbit.
- Feature ➔ It circles the Earth in **roughly 92 minutes** and **completes 15.5 orbits per day**.
- Developed by ➔ is a joint project between five participating space agencies: **NASA** (United States), **Roscosmos** (Russia), **JAXA** (Japan), **ESA** (Europe), and **CSA** (Canada) but its ownership and use has been established by intergovernmental treaties and agreements.

## 9. Styrene gas

**Why in News?**

- The leakage of Styrene from LG Polymers' plant  owned by South Korean electronics giant LG, located at RRV Puram near Gopalapatnam, about 15 kms from the coast city.

**About Styrene gas**

- What is it? ➔ It is a **flammable liquid**.
- Uses ➔ used in the manufacturing of polystyrene plastics, fiberglass, rubber, and latex.
- It is also found in **vehicle exhaust, cigarette smoke, and in natural foods** like **fruits** and **vegetables**.
- When exposed to styrene ➔
  - Short-term exposure to the substance can result in **respiratory problems**, **irritation in the eyes**, **irritation in the mucous membrane**, and **gastrointestinal issues**.
  - Long-term exposure could drastically **affect the central nervous system** and lead to other related problems like **peripheral neuropathy**. It could also **lead to cancer** and **depression** in some cases.
- Symptoms ➔ Symptoms include **headache, hearing loss, fatigue, weakness, difficulty in concentrating** etc.
- "This gas is **not poisonous** and hence there is nothing to worry to that extent. If **inhaled in large amounts** it may **be fatal**. Gas by itself gives you irritation and **causes irritation in mucus membrane**," said Director General of Police Gautam Sawang.
- He said **water acts as an antidote** to styrene and those with exposure should douse themselves with water and drink a lot of water.

## 10. Luhman 16A: A binary brown-dwarf system

**Why in News?**

- A group of international astrophysicists have identified cloud bands on the surface of Luhman 16A, one of a pair of binary brown dwarfs in the Vela constellation.

**About Luhman 16A**

- What is it? ➔ Luhman 16 is a **binary star system**, the third closest system to the Sun after Alpha Centauri and Barnard's star.

- This pair of brown dwarfs referred to as **Luhman 16A** and **Luhman 16B** orbit each other, casting a dim light.
- Distance ➔ at a distance of about **6.5 light years from the Sun**.

👉 **About Brown Dwarfs**

- Meaning ➔ Brown dwarfs are also called **failed stars**, because their masses are **intermediate to the largest planets** and the smallest main sequence stars.
- Property ➔ Their **masses** being **too small**, they are **unable to sustain fusion** of their hydrogen to produce energy.
- Atmosphere ➔ It is believed that some of the more massive brown dwarfs **fuse deuterium** or **lithium** and **glow faintly**.

👉 **Details of Finding**

- How is it done? ➔ The astrophysicists have used an idea put forth nearly two decades ago by **Indian astrophysicist Sujan Sengupta** that the light emitted by a cloudy brown dwarf, or reflected off an extrasolar planet, will be polarised.
- He suggested that a **polarimetric technique** could serve as a potential tool to probe the environment of these objects.
- The group, by using the Very Large Telescope at European Southern Observatory, Chile, found that **Luhman 16A had band-like clouds in its atmosphere,** whereas the same was not true of Luhman 16B.
- Significance ➔ Understanding the cloud system over a brown dwarf can **shed light on the pressure**, **temperature** and climate on the surface of the celestial body.

## 11. SMALLPOX

**Why in News?**

- World Health Organization (WHO) and the UN's postal agency released a commemorative postage stamp on the 40th anniversary of the eradication of smallpox.

**About Smallpox**

- Cause ➔ Smallpox was an infectious disease caused by **one of two virus variants**, **Variola major** and **Variola minor**.
- Transmission ➔ It was **contagious** i.e. **spread from one person to another**.
- Symptoms ➔ The initial symptoms of the disease included **fever** and **vomiting**. This was followed by **formation of sores in the mouth** and **a skin rash**. Over a number of days the skin rash turned into characteristic fluid-filled bumps with a dent in the center.
- Mortality ➔ The risk of death following contracting the disease was about **30%**, with **higher rates among babies**.
- Eradication ➔ The last naturally occurring case was diagnosed in **October 1977**, and the World Health Organization (**WHO**) **certified the global eradication of the disease in 1980**.

## 12. Automated UV Systems

**Why in News?**

- Recently, the Research Centre Imarat (RCI), a Hyderabad based Defence Research and Development Organisation (DRDO) premier lab, has developed a series of automated UV Systems amid this COVID-19 outbreak.

## About Defence Research Ultraviolet Sanitiser (DRUVS)

- Uses ➜ It has been **designed to sanitise** mobile phones, iPads, laptops, currency notes, cheque leafs, challans, passbooks, paper, envelopes, etc.
- Benefits➜ The DRUVS cabinet has a **contactless operation** which becomes crucial to contain the spread of Covid-19 and other viruses.
- It has **proximity sensor switches**, **clubbed with drawer opening** and **closing mechanism** which makes its operation automatic and contactless.
- It provides **360-degree exposure** of UVC to the objects placed inside the cabinet and it automatically goes into sleep mode after the sanitation process.

### ☞ NOTESCLEAN

- Uses ➜ The device **picks the note inserted from the input slot** and makes them pass through a series of UVC lamps for **complete disinfection**.
- Benefits ➜ It will **save a lot of time** because disinfection of each currency note by DRUVS or any other sanitising process is a time consuming process.

## 13. COVID Kavach Elisa

### Why in News?

- Recently, National Institute of Virology (NIV) Pune has developed and validated the 1st indigenous IgG ELISA test "COVID KAVACH ELISA" for antibody detection of COVID-19.

### About COVID Kavach Elisa

- The test kit was named 'Covid Kavach ELISA', an **indigenous antibody detection test for COVID-19**.
- India for the **first time** has developed an indigenous ELISA test for coronavirus.
- Developed by ➜ Developed in National Institute of Virology-Pune (NIV) by the **Indian Council of Medical Research** (ICMR).
- Purpose ➜ To **detect Covid-19 antibodies** known as **Immunoglobulin G (IgG) antibody** – a common antibody in blood and other body fluids.
- Play a critical role in **surveillance of proportion of the population exposed** to SARS-CoV-2 Coronavirus infection.
- Technology transferred ➜ After the commercial production and marketing permission had granted, the technology had transferred to **Zydus Cadila** for the purpose of mass-scale production.
- The commercial production and marketing permission had granted by the **Drug Controller General**.
- Advantage ➜
  - Has **higher sensitivity and specificity**.
  - Can test **90 samples together in a single run of 2.5 hours**.
  - Easy accessible as the kit has an inactivated virus.
  - Need minimum bio-safety and bio-security requirements as compared to the real-time RT-PCR test.

## 14. BiPAP Non-Invasive Ventilator "SwasthVayu"

**Why in News?**

- National Aerospace Laboratories (NAL) Bangalore, a constituent of the lab of CSIR has developed a Non-Invasive BiPAP Ventilator 'SwasthVayu 'in a record time of 36 days to treat COVID-19 patients.

**About SwasthVayu**

- What is it? ➔ BiPAP Non-Invasive ventilator comes with a **3D printed manifold & coupler** and **HEPA filter** (Highly Efficient Particulate Air Filter).
- These unique features help to **alleviate the fear of the virus spread**.
- Features ➔ like **Spontaneous, CPAP, Timed, AUTO BIPAP modes** with provision to connect Oxygen concentrator or Enrichment unit externally.
- Safety ➔ The system has been **certified for safety and performance** by the National Accreditation Board for Testing and Calibration Laboratories (**NABL**)(a Constituent Board of Quality Council of India) accredited agencies.
- The system has undergone **stringent biomedical tests** and **beta clinical trials** at NAL Health Centre.
- Benefits ➔
- It is simple to **use without any specialized nursing**, **cost effective**, **compact** and **configured** with a majority of indigenous components.
- This is **ideal for treating COVID -19 patients** in Wards, Makeshift Hospitals, dispensaries and homes in the current Indian COVID 19 scenario.

👉 **BiPAP**

- What is it? ➔ BiPAP (also referred to as BPAP) stands for **Bilevel Positive Airway Pressure**, and is very **similar in function** and **design to a CPAP machine** (continuous positive airway pressure).
- Function ➔ Similar to a CPAP machine, A BiPAP machine is a **non-invasive form of therapy** for patients suffering from sleep apnea(temporary cessation of breathing, especially during sleep).
- Difference ➔ The main **difference** between BiPAP and CPAP machines is that BiPAP machines have **two pressure settings**: the **prescribed pressure for inhalation** (ipap), and a **lower pressure for exhalation** (epap).
- The dual settings allow the patient to **get more air in and out of their lungs**.

## 15. hmAbs

**Why in News?**

- CSIR approves project to develop 'hmAbs' that can neutralize SARS-CoV-2 in patients.

**About**

- Approved by CSIR through its **New Millennium Indian Technology Leadership Initiative** (NMITLI) **programme**.
- Aim ➔ The project aims to generate hmAbs to SARS-CoV-2 **from convalescent phase** of COVID-19 patients and **select high affinity** and **neutralizing antibodies**

- The project also aims to **anticipate future adaptation of the virus** and **generate hmAbs clones** that **can neutralize** the **mutated virus** so that could be readily used for combating future SARS-CoV infections.
- Implementation ➜ The project will be implemented by **National Centre for Cell Science** (NCCS), **IIT-Indore** and **PredOmix Technologies Pvt. Ltd**. with **Bharat Biotech International Ltd**. (BBIL) as the commercialization partner.

## 16. ACE2 enzyme

**Why in News?**

- Recently, several studies revealed that men are more vulnerable to COVID-19 infection due to higher concentrations of Angiotensin-Converting Enzyme 2 (ACE2) in their blood than women.

**About**

- What is it? ➜ Angiotensin Converting Enzyme 2(ACE2) is an **enzyme molecule** that **connects the inside of our cells to the outside via the cell membrane.**
- Where is it found? ➜ The enzyme is found in our **lungs**, **heart**, **intestines**, **blood vessels and muscles**.
- The enzyme essentially **acts as a port of entry** that allows the coronavirus to invade our cells and replicate.
- Since **men have higher concentrations** of ACE2 compared to women, they are **more vulnerable** to coronavirus.

## 17. National Technology Day

**Why in News?**

- Since 1999, May 11 is celebrated as National Technology Day to mark India's technological advancements.

**About**

- Organised by ➜ This year, on behalf of the Ministry of Science & Technology, **Technology Development Board (TBD) and Confederation of Indian Industry** (CII) has organised a conference to celebrate the day.
- The theme of the conference ➜ '**Rebooting the Economy through Science, Technology and Research Translations titled RESTART'.**

👉 **National Technology Day**

- What happened on this day? ➜ It is the day India **successfully tested nuclear bombs in Pokhran** on May 11, 1998.
- Aims ➜ to **commemorate the scientific and technological achievements** of Indian scientists, engineers.
- Important technological advancements of India in year 1998 are as follows
- **Operation Shakti initiative** ➜ On May 11, 1998, India detonated three nuclear bombs in the Indian Army's Pokhran Test Range and test-fire the Shakti-1 nuclear missile.
- **Hansa 3** ➜ India's first indigenous aircraft was first tested on the same day in 1998 in Bangalore.

👉 **Technology Development Board**

- Status ➜ It is a **statutory body** established by Technology Development Board Act, 1995.

- Objective ➔ To **promote development and commercialization of indigenous technology** and adaptation of imported technology for much wider application.
- Roles and functions of the board ➔
- **Encourage enterprises** to take up **technology-oriented products**.
- **Provide equity capital or loans** to industrial concerns and financial assistance to research and development institutions.

👉 **Confederation of Indian Industry**

- Status ➔ CII is a **non-government**, **not-for-profit**, **industry-led** and **industry-managed organization**.
- Founded in ➔ **1895**
- Members ➔ It has **over 9,000 members**, from the private as well as public sectors, including SMEs and MNCs, and an indirect membership of over **300,000 enterprises** from around 265 national and regional sectoral industry bodies.
- Role ➔ CII **works with the Government on policy issues**.
- CII serves as a **reference point** for **Indian industry and the international business community**.

## 18. Z-scan Method for Parkinson's Disease

### Why in News?

- Scientists from IIT (ISM) Dhanbad and CSIR–Indian Institute of Chemical Biology, Kolkata, teamed up to develop a novel tool to get deeper insights into Parkinson's Disease.

### About Parkinson Disease

- What is it? ➔ Parkinson's disease is a **progressive nervous system disorder** that affects movement. Symptoms start gradually, sometimes starting with a barely noticeable tremor in just one hand.
- Tremors are common, but the disorder also commonly causes **stiffness** or **slowing of movement**.
- Causes ➔
  - In Parkinson's disease, certain **nerve cells** (neurons) in the brain **gradually break down or die**.
  - Many of the symptoms are due to a **loss of neurons** that produce a chemical messenger in your brain called **dopamine**.
  - When **dopamine levels decrease**, it **causes abnormal brain activity**, leading to symptoms of Parkinson's disease.
- Treatment ➔ Although Parkinson's disease **can't be cured**, medications might significantly improve your symptoms.
- Targeted people ➔ It affects the **age group from 6 to 60 years**. Worldwide, about 10 million people have been affected by this disease.
- Aggregation of ASyn ➔
  - An aggregation of a protein called **Alpha-synuclein** (ASyn) **plays a crucial role in the development of Parkinson's disease.**

o Protein aggregation is a **biological phenomenon** in which **destabilized proteins aggregate** (i.e., accumulate and clump together) leading to many diseases.

- Use of Z-scan Method ➔ The discovered Z-scan method is expected to **help in monitoring** both the early as well as late stages of the aggregation of ASyn and death of neuronal cells.

## 19. COBAS 6800 Testing Machine

**Why in News?**

- The Union Health Minister inaugurated the first automated coronavirus testing device named 'COBAS 6800'.

**About**

- What is it? ➔ It is a **fully automated**, **high end machine** for performing real time PCR testing COVID-19 in the service of the nation.
- Features ➔ It is a **sophisticated machine enabled with robotics** that minimizes the chance of contamination as well as the risk of infection to the health care workers since it can be operated remotely with limited human intervention.
- As the machine requires a minimum **BSL2+ ( Biosafety level) containment level for testing**, it cannot be placed at just any facility.
- It is installed at the **National Centre for Disease Control** (NCDC).
- Significance ➔ It will help **minimize the chance of contamination** and the **risk of contraction of the virus** by healthcare professionals as the machine is operated remotely with very little human intervention.

👉 **National Centre for Disease Control**

- Functions ➔ It functions as the nodal agency in the country for **disease surveillance**, **facilitating prevention and control of communicable diseases.**
- It is also a national level institute for **training specialized manpower** for public health, laboratory sciences and entomological services and is involved in various applied research activities.
- Parent Organization ➔ The Institute is under **administrative control of the Director General of Health Services**, Ministry of Health and Family Welfare.
- Headquarters ➔ **Delhi.**

## 20. Y2K BUG

**Why in News?**

- Y2K bug was recently mentioned by the Prime Minister while addressing the nation on Covid-19 related issues.

**About**

- Description ➔ The letter **K**, which stands for kilo (a unit of 1000), is commonly used to represent the **number 1,000. So, Y2K stands for Year 2000.**
- It is also called the '**Year 2000 bug or Millennium Bug**'.

- Y2K was both a software and hardware problem.
- Background ➔
    o While writing computer programs during the **1960s** to **1980s**, **computer engineers used only the last two digits of a year.**
    o For example, "**19**" was left out from "**1999**" and **only** "99" **was used.** This was done because storing data in computers was a **costly process** that **also took up a lot of space**.
    o As the **new century** approached, programmers began to worry that computers might not interpret **"00"** as **2000**, but **instead as 1900**.
    o This led to the idea that all activities that were programmed would be damaged as a computer would **interpret January 1, 1900 instead of January 1, 2000**.
- Implications ➔ The sectors such as **Information Technology** (IT), **banking**, **transportation**, **power plants**, **medical equipment,** etc. which used to work on correct date and time synchronisation were **threatened by the Y2K problem.**
- Solution ➔ Software and hardware companies raced to fix the bug and provided "**Y2K compliant**" programs to help.
- Impact ➔ Countries such as **Italy**, **Russia, and South Korea** had **done little to prepare for Y2K**. They had no more technological problems than those countries, like the U.S., that spent millions of dollars to combat the problem. Due to the **lack of results**, **many people dismissed the Y2K bug as a hoax**.

## 21. Eventbot

### Why in News?

- The Computer Emergency Response of Team (CERT) of India has issued warning against a new malware called "EventBot".

### About

- What is it? ➔ The Eventbot is a **Trojan**. It **cheats victims secretly** attacking computer or phone operating system.
- The malware **steals personal financial information** from Android phone users.
- Appearance ➔ It **uses several icons to masquerade as legitimate apps** such as Microsoft Word, Adobe Flash and others using third-party application downloading sites to infiltrate into victim device.
- Target ➔
    o The malware **targets 200 financial applications** – includes **banking apps** and **money transfer services**.
    o It targets the applications – Paypal Business, Revolut, Barclays, UniCredit, CapitalOne UK, HSBC UK, TransferWise, Coinbase, paysafecard etc.
    o As of now, malware has **not been spotted in any of the apps available through Google Play Store** as of now.
- How it attacks? ➔
    o After installation, it **ask required permissions** like controlling system alerts, reading external storage content, auto-initiated upon reboot, receive and read SMS messages etc.
    o By **securing such permissions**, the attackers can **access the financial information of the user**. They can access it better by reading the Lock Screen and in-app PIN.

👉 **CERT-In**

- CERT-In stands for ➜ **Computer Emergency Response Team** (CERT-In)
- CERT-In is nodal government agency that **deals with cyber security threats** like hacking and phishing in India.
- Parent organization ➜ **Ministry of Communications and Information Technology**.
- Established ➜ **2004**
- Headquarters ➜ **New Delhi**
- Objective ➜ **Protect Indian cyberspace and software infrastructure** against destructive and hacking activities.

## 22. Super Earth

**Why in News?**

- Scientists from the University of Canterbury (UC) have discovered a rare new Super-Earth planet that lies towards the centre of the galaxy, also called the Galactic Bulge.

**About Super Earth**

- What is it? ➜ All of the planets in our solar system orbit around the Sun, those planets that orbit around **other stars** are called **extra solar planets** or **exoplanets**.
- They are **very hard to see directly** with telescopes as they are **hidden by the bright glare of the stars** they orbit.
- So, astronomers use other ways to detect and study these distant planets.
- They search for exoplanets by **looking at the effects these planets have on the stars they orbit**.
- According to NASA, **Super Earths are quite common in our galaxy** and these planets can be up to 10 times more massive than Earth.

### Recent discover

- The planet is one of '**only a handful of extra-solar planets** that have been discovered with both size and orbit comparable to that of Earth.
- According to the researchers, the planet's host star is about **10% the mass of our Sun**.
- The Super Earth planet's **mass** would be somewhere **between that of Earth and Neptune**, and would orbit at a location between Venus and Earth from the parent star.
- The planet's '**year**' would be of approximately **617 days**.
- The planet was discovered using a technique called '**Gravitational Microlensing**' where the combined gravity of the planet and its host star causes light from a more distant background star to be magnified in a particular manner.

## 23. Iron-Manganese based Biodegradable Alloy

**Why in News?**

- Indian scientists have jointly developed new generation Iron-Manganese based alloys for biodegradable metal implants for use in humans.

**About**

- What is it? ➔ The **Biodegradable materials** (Fe, Mg, Zn, and polymer) can participate in the healing process and then **degrade gradually** by maintaining mechanical integrity **without leaving any implant residues** in the human body.
- They are **better alternatives** to currently used **metallic implants** which remain permanently in the human body and can **cause long-term side effects** like systemic toxicity, chronic inflammation, and thrombosis.
- The ARCI team employed both **conventional melting** and **powder metallurgy techniques** in the manufacturing of the **new Fe-Mn** based biodegradable alloys.
- The **alloy Fe-Mn** (having Mn composition of more than 29% by weight) is a promising **biodegradable metallic** implant which exhibits a **single austenitic phase** (a non-magnetic form of iron) **with MRI compatibility**.
- Easy degradation ➔
    - The alloy also showed a **degradation rate** in the **range of 0.14-0.026 mm per year** in the simulated body fluid.
    - It means that the Fe-Mn alloy exhibits **mechanical integrity for 3-6 months** and **completely, disappears** from the body in 12-24 months.
- Benefits ➔
    - The Fe-Mn alloy produced at ARCI exhibited **99% density with impressive mechanical properties** and behaved as a **nonmagnetic material** even under a strong magnetic field.
    - These properties are comparable to presently used **permanent Titanium** (Ti) and **stainless-steel metallic implants** (which is very costly).

## 24. microRNA

**Why in News?**

- Age and underlying health conditions make people more vulnerable to the novel coronavirus SARS-CoV-2. This is because the attacking microRNA numbers dwindle in them.

**About**

- History ➔ MicroRNA were **first discovered by the scientists in the mid-1990s**.
- What is it? ➔ They are **tiny fragments of RNA genetic sequence** produced within the cells.
- They are **non-coding molecules** meaning that they do not translate into protein.
- They are **part of our line of attack against a viral infection** by latching on to the virus's genetic material (**RNA**) and **cutting it.**
- However, these **MicroRNAs decrease with age** due to underlying health conditions. Hence, this may explain why **older adults** and **people with certain health concerns** are **more likely to die** if they contract COVID-19.

## 25. Sun reportedly entering 'Solar Minimum'

**Why in News?**

- The sun is said to have reached into a state of 'solar minimum' as it has been more than 100 days since the sunspots are virtually not visible at all.

**About solar minimum**

- What is it? ➔ It is the **period of least solar activity in the 11-year solar cycle of the Sun**.
- During this time, **sunspot and solar flare activity diminishes** and often does not occur for days at a time.
- Concerns: It may **cause health risks to astronauts travelling** through space as the sun's magnetic field weakens and provides less shielding from these cosmic rays.



## 26. Certification of 'Quantum Entanglement'

### Why in News?

- Researchers from Kolkata have developed a novel protocol to find out whether a pair of electrons is in an entangled state so that they can be safely used as resources for facilitating quantum information processing tasks.

### About

- Protocol ➔ The theoretical idea is based on applying the **fine-grained uncertainty relation** to perform quantum steering.
- The experiment uses an **all-optical set-up** in which entangled pairs of photons are created by laser light on **Beta barium borate (BBO) crystals**, a **nonlinear optical crystal**, used as **laser crystal**.

👉 **Quantum entanglement**

- It is the **physical phenomenon** that occurs when a **pair** or **group of particles** is generated and interacts in a way such that the quantum state of each particle of the pair or group **cannot be described independently** of the state of the others.
- Significance ➔
    o Entangled states are key resources to **facilitate many quantum information processing tasks** and quantum **cryptographic protocols**.
    o This concept can be used in emerging technologies such as **quantum computing** among others.

## 30.     ANtarctic Impulsive Transient Antenna or ANITA

### Why in News?

- Researchers using NASA's ANITA have succeeded in finding "a fountain of high-energy particles erupting from the ice" in Antarctica which according to the researchers could be proof of a parallel universe.

### About ANITA

- What is it? ➔ Designed by **NASA,** the ANITA instrument is a **radio telescope** which is used to **detect ultra-high energy cosmic-ray neutrinos** from a scientific balloon flying over Antarctica.
- ANITA is also the **first NASA observatory** for neutrinos of any kind.
- It involves an **array of radio antennas** attached to a **helium balloon** which **flies over the Antarctic ice sheet at 37,000 meters.**

- How does ANITA detect Neutrinos ➔ The ANITA instrument detects these ultra-high energy neutrinos by use of the **Askaryan effect**.
- Askaryan Effect ➔ It **predicts** the **production of a coherent radio emission** from the cascade of particles produced in a high-energy particle interaction.
- How many ANITAs? ➔ **ANITA**-I was launched in 2006–07 and **ANITA-IV** was launched in 2016.

👉 **Neutrinos**

- A neutrino is a subatomic particle **very similar to an electron**.
- But it has **no electrical charge** and a **very small mass**, which might even be zero.
- Neutrinos are one of the **most abundant particles** in the **universe**.
- Because they have very little interaction with matter, they are **incredibly difficult to detect**.

## 31. RT-LAMP based test for Coronavirus

**Why in News?**

- In order the scale-up the fight against coronavirus pandemic, the CSIR-IIIM has developed RT-LAMP based test for Coronavirus.

**About**

- Develop by ➔ **CSIR-IIIM, Jammu** has partnered with **Reliance Industries Limited** (RIL) to develop and scale-up a new Reverse Transcriptase-Loop Mediated Isothermal Amplification (**RT-LAMP**) **based COVID-19 diagnostic kit.**
- Features ➔ COVID-19 RT-LAMP test is a **nucleic acid-based test** carried out **from nasal/throat swab sample** from patients.
- The test recipe has been developed and successfully demonstrated **using synthetic templates**.
- Benefits➔
- It is **rapid (45-60 min)**, **cost effective** and **accurate test**.
- It has been tested with a **small number of patients samples** and validating the kit on **more number of patient samples is planned** and will be **done together with RIL**.
- RT-LAMP based COVID-19 kit components are **easily available** and these can be **completely manufactured in India.**
- RT-LAMP test can be done in a **single tube** with **minimal expertise in a very basic lab setup** like **mobile units / kiosks** for testing at Airports, Railway Stations, Bus Stands and other public places.

## 29. Tianwen-1: China's Mars Mission

**Why in News?**

- China will launch its first Mars mission 'Tianwen-1' which is expected to land on the Red Planet's surface in the first quarter of 2021.

**About**

- Components➔ Tianwen-1 is an all-in-one **orbiter, lander and rover**.

- Functions➜ It will search the Martian surface for **water, ice, investigate soil characteristics, and study the atmosphere**.
- Launch rocket➜ The Tianwen-1 mission will **lift off on a Long March 5 rocket**.
- Payloads ➜ It will **carry 13 payloads** (seven orbiters and six rovers) that will explore the planet.
- Significant for China ➜ If the mission is successful, China will become the **third country** to achieve a Mars landing after the **USSR** and the **United States**.
- Around the same time in July, **NASA** will **also launch** its own Mars mission– '**Perseverance**'.
- It aims to **collect Martian samples** and **bring them back to Earth in a two-part campaign**.

## 33. Spectrin

### Why in News?

- Researchers have found that spectrin can act as 'shock absorbers' to protect axons from stretch-induced damage.

### About

- Spectrin ➜ are **flexible rod-shaped molecules present in axons**.
- Axons ➜ are **long tubular extensions of nerve cells** that transmit electrical signals across long distances and can be up to a meter long in the case of humans.
- At such lengths, they are subjected to **large stretch deformations** during limb or other bodily movements. **Axons** in the **brain too undergo significant deformations**, even during normal activities like jumping.
- Significant ➜ The study can help in understanding and **treatment of concussion from head injuries** as well as **stretch-induced nerve injuries**.

## 31. NGC 3895

### Why in News?

- NASA's Hubble telescope released an image of a spiral galaxy, NGC 3895, that, in colour and shape, resembles a coffee made by a barista.

### About NGC 3895

- Timeline ➜ NGC 3895 was discovered by German-born British astronomer **William Herschel** in 1790. It was later **observed by the Hubble Space Telescope**.
- Location ➜ It is located at a distance of over **161 million light-years** and is a **part of Ursa Major**.
- The **image, colour and shape of the galaxy** resembles a coffee.
- The galaxy has a diameter of approximately **45,000 light-years**.

# Geography

## 1. Kashmir Saffron

**Why in News?**

- Kashmir Saffron has been given geographical Indication.

**About**

- Location ➔ cultivated and harvested in **Karewas (High lands) of Jammu and Kashmir**.
- It is the only saffron in the world which is grown at an **altitude of 1600m-1800m** above the mean sea level.
- It is grown in Kishtwar, which is popularly known as "**The Land of Sapphire and Saffron**".
- Timeline ➔ It was introduced in India by **central Asian migrants** around 1st century BC, It is known as **Bahukam** in ancient Sanskrit literature (Amarakosara).
- Three types of Kashmir saffron are
    1. **Lachha Saffron** - Stigmas that got separated from the flowers and dried up without any further processing.
    2. **Mongra Saffron** - Stigmas detached from flower, dried in the sun and then further processed traditionally.
    3. **Guchhi Saffron** - Stigmas joined together and ties with cloth thread.
- Whats' so special about Kashmir Saffron? ➔The unique characteristics of Kashmir saffron are its **longer and thicker stigmas**, **natural deep-red colour**, **high aroma**, **bitter flavour**, **chemical-free processing**, and **high quantity of crocin** (colouring strength), **safranal** (flavour) and **picrocrocin** (bitterness).

## 2. River erosion in Ladakh Himalayas

**Why in News?**

- Wadia Institute of Himalayan Geology (WIHG) have studied rivers in Ladakh Himalaya, bringing out 35 thousand-year histories of river erosion and identified hotspots of erosion and wide valleys that act buffer zones.

**What came out in the study?**

- The study suggested that the **wide valley of Padam** in the upper Zanskar is a **hotspot of sediment buffering** and has stored a vast amount of sediments.
- Most of the sediments in the Padam valley were **derived from Higher Himalayan crystalline** that lie in the headwater region of Zanskar.
- The dominant factors responsible for sediment erosion were **deglaciation** and **Indian Summer Monsoon derived precipitation** in the headwaters.

- The provenance analysis suggested that despite the presence of the deep narrow gorge and a low gradient, the **upper and lower Zanskar valleys remained connected throughout their aggradational history**.
- Significance of the study ➔ The understanding of water and sediment routing becomes **crucial while developing infrastructure** and for **other development works** in the river catchment area.

#### 👉 Zanskar River

- The Zanskar River is a **north-flowing tributary of the Indus**. In its upper reaches, the Zanskar has **two main branches.**
- **First** of these, the Doda, has its **source near the Pensi-la 4,400 m** (14,400 ft) mountain-pass.
- The **second** branch is formed by two main tributaries known as **Kargyag river**, with its source near the Shingo La 5,091 m (16,703 ft), and **Tsarap river**, with its source near the Bara lacha-La
- Zanskar river then takes a **north-eastern course** through the dramatic Zanskar Gorge until it joins the Indus near "**Nimmu**" in Ladakh

## 3. BoBBLE | Bay of Bengal Boundary Layer Experiment

### Why in News?

- A team from Indian Institute of Science in Bengaluru and UK based University of East Anglia have created a blueprint for accurate prediction of monsoon, tropical cyclones and other weather-related forecast.

### About

- BoBBLE is a joint **India-UK project**.
- Mandate ➔ To **examine the impact of ocean processes in the Bay of Bengal** (BoB) on the monsoon system.
- Fund ➔ It is a project **funded by Union Ministry of Earth Sciences** and **the Natural Environment Research Council of UK.**
- The team carried out **studies of oceanographic properties** on board **RV Sindhu Sadhana** in the southern Bay of Bengal.
- Scientists from India and UK plans to release **underwater robots** in Bay of Bengal to monitor how ocean conditions influence monsoon, which can help in better predictions of the rainfall.
- Once out in the ocean, they will release **seven underwater gliders** to measure ocean properties such as temperature, salinity and current.
- The Bay of Bengal (**BoB**) plays a fundamental role in **controlling the weather systems** that make up the South Asian summer monsoon system.
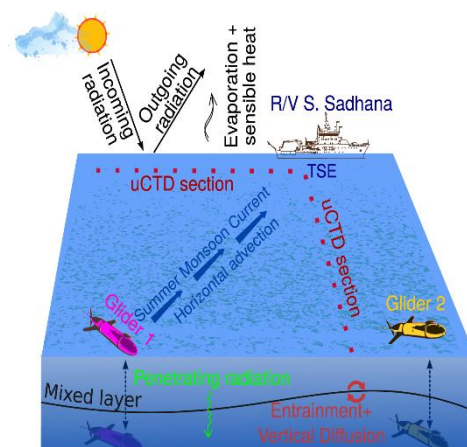
#### 👉 About RV Sindhu Sadhana

- What it is? ➔ **Multi-disciplinary oceanographic research vessel**
- CSIR- NIO acquired in ➔ **2012**

- Features ➔ It will have capabilities to undertake **basin scale observations** and will enable Indian oceanographers to **take up studies** not only in the seas around India, but **also in any part of the Indian Ocean**.
- It is aimed to serve as a **stable platform** allowing operation of **sensible equipment** and **underway data acquisition**.
- Another research vessel of NIO is "**Sindhu Sankalp**".

👉 **About CSIR-NIO (The National Institute of Oceanography)**

- It is an **autonomous research organization** in India to undertake **scientific research** and **studies of special oceanographic features** of the Northern Indian Ocean.
- Establish ➔ **1966** as one of 37 constituent laboratories of the CSIR.
- Headquartered ➔ **Goa**
- Regional centers ➔ **Kochi, Mumbai and Vizag**.

## 4. Gilgit-Baltistan

### Why in News?

- The External Affairs Ministry issued a strong protest over an order by the Pakistan Supreme Court allowing the government to hold elections in the region of Gilgit-Baltistan of Pakistan-occupied Kashmir (PoK).

### About

- GB is **one of the two parts** of Pakistan Occupied Kashmir (PoK).
- The other one is "**Azad Jammu and Kashmir**" (AJK) and both formed part of the territory of the erstwhile princely state of Jammu and Kashmir (J&K).
- Timeline ➔
  - o The territory was handed over to the newly created state of Pakistan in **November 1947** by the action of a **British officer of the Gilgit Scouts.**
  - o Despite being in the service of the Maharaja of Kashmir, he **revolted** and **joined Pakistan**.
- Location ➔
  - o Located in the **northern Pakistan**. It **borders China in the North**, **Afghanistan in the west**, **Tajikistan in the north west** and **Kashmir in the south east.**
  - o It shares a geographical boundary with **Pakistan-occupied Kashmir**, and **India considers** it as **part of the undivided Jammu and Kashmir**, while Pakistan sees it as a separate from PoK.
- It has a **regional Assembly** and an **elected Chief Minister**.
- China-Pakistan Economic Corridor (**CPEC**) also **passes** through this region.
- Gilgit-Baltistan is home to five of the "**eight-thousanders**" and to **more than fifty peaks above 7,000 metres** (23,000 ft).
- Three of the world's longest glaciers outside the polar regions are found in **Gilgit-Baltistan**.
- Pakistan, in **2017**, proposed to declare the **strategic Gilgit-Baltistan region** as its **fifth Province**.
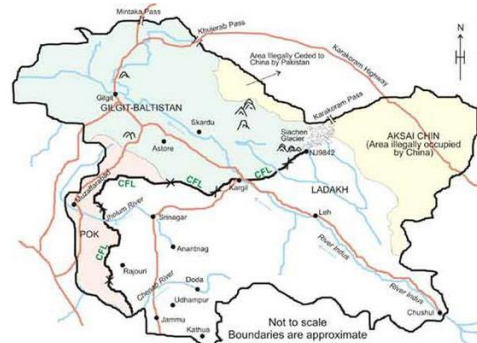
## 5. Surging glaciers in Karakoram Range

**Why in News?**

- Scientists from Wadia Institute of Himalayan Geology have found a seasonal advancement in surge-type glaciers in the Karakoram Range of Ladakh.

**About**

- What is it? ➔ Glacial surges are **short-lived events** where a glacier can advance substantially, moving at **velocities up to 100 times faster than normal**.
- Why it happens? ➔ Until recently, a glacier's physical characteristics, such as its **thickness** and **shape**, and the properties of the terrain it sits on determining whether it can surge.
- Now, it is proved to believe an **external factor also plays** a major role: **water from precipitation** and **melting**.
- Pooling on the surface, it can infiltrate the glacier through **crevasses and reach its base**, warming, lubricating, and, ultimately, releasing the ice.
- Concerns ➔
    - Potentially catastrophic as it can lead to the **destruction of villages, roads and bridges**.
    - It can also advance across a river valley and form an **ice-dammed lake**.
- Significance ➔ Subglacial processes and conditions like amount of debris, distribution of stored water, and temperature gradient are crucial to **understand the diversity of surge-types** and **surge-like behavioural spectrum.**

### 👉 About Karakoram Range

- Location ➔ The Karakoram is a mountain range spanning the borders of **India**, **Pakistan** and **China** with the northwest extremity of the range extending to **Afghanistan** and **Tajikistan**.
- Size ➔ The range is spread over a **length of 482 km**, and it covers a tract **46 to 48 km broad**.
- Significance ➔
    - Karakoram **separates Kashmir from China**, and South-central Asian States.
    - It also **protects** Kashmir from the **extreme cold winds of Siberia**.
    - The world's **second highest peak K2** (8611 m) is within this range.
    - World famous glaciers, the **Siachen Glacier**, **Masherbroom** and **Gaisherbroom** are also in Karakoram range.



## 6. Kailash – Mansarovar Yatra Route from Dharchula to Lipulekh

**Why in News?**

- The Border Roads Organisation (BRO) has completed the construction of road from Dharchula to Lipulekh along the China Border, famously known as Kailash-Mansarovar Yatra Route.

### About

- What is it? ➔ The road is an **extension of Pithoragarh-Tawaghat-Ghatiabagarh road**. In this 80 Km road, the altitude rises from 6000 feet to 17,060 feet.
- Travel to Kailash ➔ It **originates from Ghatiabagarh in Uttarakhand and terminates at Lipulekh Pass**, the gateway to Kailash Mansarovar.
- With the completion of this project, the **arduous trek through treacherous high-altitude terrain can now be avoided by the Pilgrims** of Kailash Mansarovar Yatra and the period of journey will be reduced by many days.
- How the road helps ➔
  - It will **boost the Local trade** and **Economic growth** in the region.
  - It will save the devotees an **80 km track** and **reduce the journey by 6 days** proving to be the shortest and cheapest route.
  - There is no air travel involved in yatra and the majority of the travel **84% is in India** and **only 16% in China** compared to other routes in which 80% of road travel is in China.
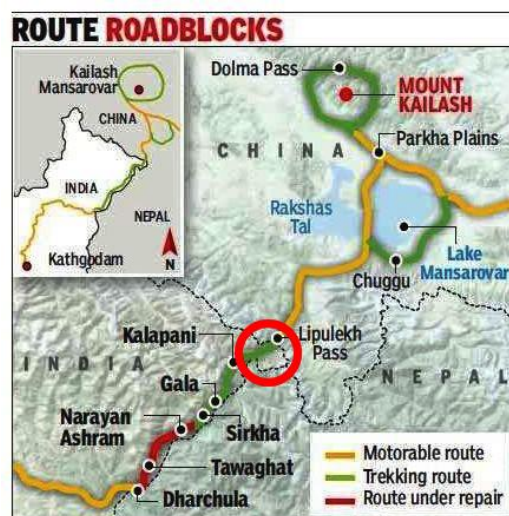
### 👉 About Kailash Mansarovar Yatra

- Location ➔ Mount Kailash (above 6,600 meters) located in the **Tibet region of China**, is one of the most important pilgrimages for Indians and is known to be the **abode of Lord Shiva**.
- Significance ➔ Kailash Manasarovar Yatra is considered as a **spiritual pilgrimage** for **Hindus**, **Jains** and **Buddhists**, and has a cultural and religious significance.
- Every year the **Ministry of External Affairs organises** the Kailash Manasarovar Yatra.

## 7. INDIA-CHINA BORDER DISPUTE

### Why in News?

- Recently, Indian and Chinese troops engaged in a temporary and short duration face-off along the Line of Actual Control (LAC) at Naku La (Sikkim) and near Pangong Tso Lake (Eastern Ladakh).

### About Naku La

- Naku La sector is a pass at a **height of more than 5,000 metres** above Mean Sea Level (MSL) in the **state of Sikkim.**
- It is located ahead of **Muguthang** or **Cho Lhamu** (source of River Teesta).
- At **Muguthang**, the **road on the Chinese side** is motorable, and on the **Indian side,** it is a **remote area**.
- The other passes located in the state of Sikkim are **Nathu La Pass** and **Jelep La Pass**.

**THE FLASHPOINTS**

| **Spot 1** Finger 5 (Pangong Tso, eastern Ladakh) | **Spot 2** Naku La sector (ahead of Muguthang, Sikkim) |
|---|---|
| Date: May 5-6 | Date: May 9 |
| Troops involved: 250 | Troops involved: 150 |
| Injured: Several (on both sides) | Injured: 4 Indian, 7 Chinese |

👉 **Pangong Tso Lake**

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

## 8. River Nila

**Why in News?**

- Recently, the 17th Session of Dekho Apna Desh Webinar was titled 'Exploring River Nila'.

**About**

- It is also known as **Bharathappuzha** (River of Bhārata), second longest river in Kerala, after the Periyar River.
- Originates ➔ from **Thirumurthy Hills of Anamalais in Tamil Nadu**.
- Significance ➔ It is an **interstate river** and lifeline **water source for a population** residing in four administrative districts, namely Malappuram, Thrissur and Palakkad districts of Kerala and Coimbatore, and Tiruppur of Tamil Nadu.
- Spread ➔ It is the only river of Kerala that **passes across the landmass of Western Ghats** through the Palakkad Gap.
- Tributaries ➔ **Kannadipuzha** (Chitturpuzha), **Kalpathipuzha** (Korapuzha), **Gayathripuzha**, and **Thuthapuzha** are the four main tributaries of River Nila.
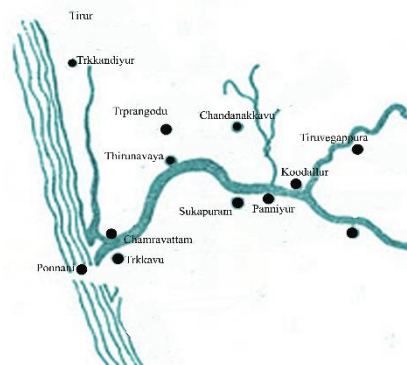
## 14. Etalin Hydropower Project

**Why in News?**

- The Forest Advisory Committee, the apex body of the Environment Ministry, has once again deferred its decision on a controversial hydropower project in Arunachal Pradesh.

**About Project**

- Etalin Hydropower Project is **based on the river Dibang**, it is also known as **Dibang Valley project**.
- Dibang is a **tributary of the Brahmaputra river** which flows through the states of **Arunachal Pradesh and Assam**.
- It envisages construction of **two dams** over the tributaries of Dibang: **Dir and Tangon**.
- Significance ➔
  - The Project is in accordance with the Government's push to establish **prior user rights on rivers** that **originate in China and an effort to fast-track projects in the north-east.**
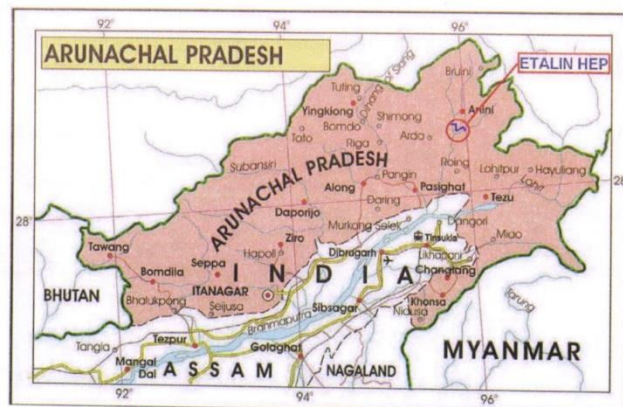
Figure – 1

- o It is expected to be one of the **biggest hydropower projects in India** in terms of installed capacity.
- Concerns ➔
  - o The Project **falls under** the "**richest bio-geographical province of the Himalayan zone**" and would be located at the junction of the Palaearctic, Indo-Chinese and Indo-Malayan bio-geographic regions.
  - o A total of **18 villages** consisting of **285 families** are **expected to be affected** by the proposed project.
  - o It would entail **felling 2,80,677 trees** and threatens the existence of globally-endangered mammal species.
- According to the decision the **3097 MW Etalin Hydropower project**, in the State's Dibang Valley, has been **delayed for over six years**.
- This is because it required **diverting 1165 hectares of forest** in a region of rich biodiversity.

## 10. DIRECT SEEDING OF RICE (DSR)

### Why in News?

- Due to labour shortage in two granary states of Punjab and Haryana, farmers are now being encouraged to adopt 'Direct Seeding of Rice' (DSR) in place of conventional transplanting.

### About Normal Transplanting of Paddy

- What is it? ➔ In transplanting paddy, farmers **prepare nurseries** where the **paddy seeds are first sown** and **raised into young plants**.
- Area ➔ The nursery seed bed is **5-10% of the area** to be transplanted.
- These seedlings are then uprooted and **replanted 25-35 days later in the puddled field**.

### 👉 DIRECT SEEDING OF RICE (DSR)

- What is it? ➔ In DSR, there is **no nursery preparation** or transplantation and seeds are **directly drilled** into the field **by a tractor-powered machine**.
- In DSR, water is **replaced by real chemical herbicides** and farmers have to only **level their land** and give one **pre-sowing irrigation**.
- Lucky Seed Drill ➔ Developed by The Punjab Agricultural University (PAU) in Ludhiana that can **both sow seeds and simultaneously spray herbicides** to control weeds.
- **Advantage with Direct Seeding of Rice** ➔
  - o Water savings.
  - o Less numbers of labourers required.
  - o Saves labour cost.
  - o Reduce methane emissions due to a shorter flooding period and decreased soil disturbance compared to transplanting rice seedlings.
- **Drawbacks of Direct Seeding of Rice** ➔
  - o Non-availability of herbicides.
  - o The seed requirement for DSR is also high, 8-10 kg/acre, compared to 4-5 kg/acre in transplanting.
  - o Further, laser land levelling is compulsory in DSR. This is not so in transplanting.

## 11. Diamer-Bhasha Dam

**Why in News?**

- Recently, Pakistan signed a contract with a joint venture of a China Power (Chinese state-run firm) and the Frontier Works Organisation (FWO-a commercial arm of Pakistan's military) for the construction of the Diamer-Bhasha dam.

**About**

- Location ➜ Diamer-Bhasha Dam is a **concreted-filled gravity dam**, in the preliminary stages of construction, on the **River Indus** between Kohistan district in Khyber Pakhtunkhwa and Diamer district in Gilgit Baltistan.
- The dam site is situated near a place called "**Bhasha**", hence the name.
- Gross storage capacity ➜ **8.1 Million Acre Feet** (MAF)
- Power generation capacity ➜ **4500 MW**
- With the height of 272 meters, it will be the **tallest Roller Compact Concrete** (RCC) dam in the world.
- Cost ➜ The dam project with a total financial outlay of about 1,**406.5 billion Pakistani rupees** would be completed in 2028.
- India's Stand ➜ **India has opposed** the move on the grounds that Gilgit-Baltistan region is part of the erstwhile state of Jammu and Kashmir that was illegally occupied by Pakistan.

## 12. Cyclone Amphan

**Why in News?**

- The India Meteorological Department (IMD) has declared a cyclone alert for the Indian coastline across the Bay of Bengal as a low-pressure area has formed over southeast Bay of Bengal and adjoining south Andaman sea. The cyclone will be named 'Cyclone Amphan'.

**About Tropical Cyclones**

- Where? ➜ Cyclones developed in the regions between the **Tropic of Cancer and Tropic of Capricorn**, are called tropical cyclones.
- When? ➜ Tropical cyclones usually develop in **summer season** in the vicinity of Inter-Tropical Convergence Zone (**ITCZ**) **over warm ocean surface**.
- Redistributed of heat ➜ Tropical cyclones are one of the mechanisms by which surface heat energy is redistributed **from the equator to the poles**.
- Conditions necessary for development ➜
    - Large sea surface with **temperature higher than 27° C**
    - Presence of the **Coriolis force**
    - **Small differences in the vertical wind speed**
    - A **pre-existing weak- low-pressure area** or low-level-cyclonic circulation

o **Upper divergence** above the sea level system

## 13. ANAKKAMPOYIL-KALLADI-MEPPADI ROAD TUNNEL

**Why in News?**

- Union government has given the nod for a ₹658-crore two-lane tunnel road in the Anakkampoyil-Kalladi-Meppadi corridor.

**About**

- Where? ➔ It would run parallel to the landslip-prone Thamarassery pass that **links Kozhikode to Wayanad**.
- Length ➔ On completion, the **6.5-km tunnel** will be the third longest in the country.
- This alternative subterranean road would be **30-km shorter than the present ghat road**.
- Approach roads and a **70-metre bridge** over the **Iranjipuzha river** are part of the project.
- Kerala's longest is the **962-metre tunnel at Kuthiran**, between Thrissur and Palakkad.
- The **Konkan Railway Corporation**, which prepared the detailed project report for this project.
- Cabinet has given the nod to make available the funds of the **Kerala Infrastructure Investment Fund Board** (KIIFB) for the tunnel road.

## 1. West Bengal Major Irrigation and Flood Management Project

**Why in News?**

- Government of India, West Bengal Government, the Asian Infrastructure Investment Bank (AIIB) and World Bank have signed a loan agreement for a project titled 'West Bengal Major Irrigation and Flood Management Project'.

**About**

- Aim ➔ To **improve irrigation service delivery**, **strengthen flood risk management** and improve climate change resilience in the Damodar Valley Command Area (**DVCA**).
- Significance ➔ The project is intended to **benefit about 2.7 million farmers** from five districts of West Bengal.

👉 **Damodar River**

- It is a river flowing across the Indian states of **Jharkhand and West Bengal**.
- Origin ➔ It **rises in the Palamu hills** of the Chota Nagpur plateau in the **state of Jharkhand**.
- Main Tributaries ➔ **Barakar**, **Konar**, **Bokaro**, **Haharo**, **Jamunia**, **Ghari**, **Guaia**, **Khadia** and **Bhera**.
- The river was **earlier known** as the **River of Sorrows** as it used to flood many areas of Districts of West Bengal.



Damodar Basin
Rivers in Blue. Dams/Reservoirs in Grey
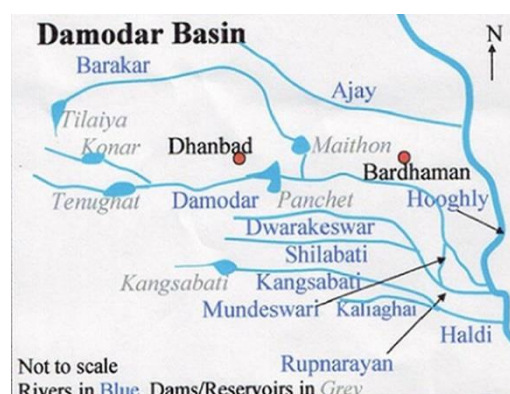
## 15. KANGRA TEA

**Why in News?**

- The chemicals in Kangra tea are found to be effective in boosting immunity as they can block coronavirus activity better than anti-HIV drugs.

## About

- What is it? ➔ Using computer-based models, the scientists screened **65 bioactive chemicals** or polyphenols found in the tea, that could **bind to a specific viral protein more efficiently** than commercially available **anti-HIV drugs** approved for treating COVID-19 patients.
- These chemicals might **block the activity of the viral protein** that helps the virus to thrive inside human cells.
- These findings were revealed during a webinar organized at Institute of Himalayan Bioresource Technology (IHBT) on the occasion of the **International Tea Day**. (21 May)

### 👉 KANGRA TEA

- Location ➔ Kangra tea is a tea from the **Kangra district in Himachal Pradesh**, India. Although Kangra cultivates both **black tea** and **green tea**, black tea constitutes around 90% of the production.
- The tea is known for its **unique color** and **flavor**.
- The unique characteristics of the tea is attributed to the **geographical properties of the region**.
- Recognition ➔ Kangra tea was given the **Geographical Indication status in 2005**.

## 16. Grand Ethiopian Renaissance Dam on Nile

### Why in News?

- In the latest developments on this front, Egypt announced that it is willing to resume negotiations with Ethiopia and Sudan concerning the dam.

### About Grand Ethiopian Rennaissance Dam (GERD)

- What is it? ➔ GERD is a gravity dam on the Blue Nile River in Ethiopia that has been under construction since 2011.
- Significance ➔ At 6.45 gigawatts, the dam will be the largest hydroelectric power plant in Africa when completed, as well as the seventh-largest in the world.
- Once completed, the **reservoir** could take anywhere **between 5 and 15 years** to fill with water, depending on hydrologic conditions during the filling period and **agreements** reached **between Ethiopia, Sudan, and Egypt**.
- Issues with the Dam ➔
    - While the **main waterways** of the Nile run through **Uganda, South Sudan, Sudan and Egypt**, its drainage basin runs through **other countries in East Africa**, including **Ethiopia**.
    - **Egypt** has **objected** to the **construction of this dam** and in **Sudan** has **found itself caught in the midst of this conflict.**
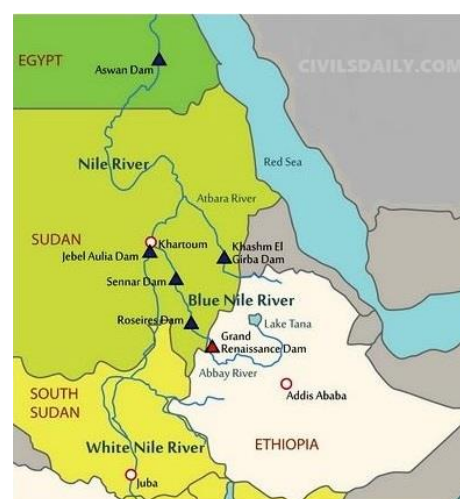


### 👉 Nile River

- Location ➔ The Nile River flows from **south to north** through eastern Africa. It begins in the rivers that **flow into Lake Victoria** and **empties into the Mediterranean Sea**.
- The river runs through countries namely **Egypt, Burundi, Tanzania, Rwanda, the Democratic Republic of the Congo, Kenya, Uganda, Sudan, Ethiopia, and South Sudan.**
- Tributaries ➔ Its three main tributaries are the **White Nile**, the **Blue Nile**, and **the Atbara**.

## 17. Heatwave

### Why in News?

- India Meteorological Department (IMD) has issued a red warning for Delhi, Punjab, Haryana, Chandigarh and Rajasthan for the next two days.

### About Heatwave

- What is it? ➔ It is a **period of abnormally high temperatures more than the normal maximum temperature** that occurs during the summer season in the North-Western and South-Central parts of India.
- Time of occurrence ➔ They typically occur **between March and June** and in some rare cases even extend till July.
- Affects ➔ The extreme temperatures and resultant atmospheric conditions affects people living in these regions as they **cause dehydration, heat cramps, heat exhaustion and/or heat stroke**.
- Criteria ➔ The Indian Meteorological Department (IMD) has given the following **criteria for Heat Waves**:

| When maximum temperature reaches **40ºC in plains** and at least **30ºC in hilly Regions.** |
|---|
| i)     Based on Departure from Normal<br><br>**Heat Wave:** Departure from normal is **4.5°C to 6.4°C**.<br>**Severe Heat Wave:** Departure from normal is **>6.4°C** or **more**. |
| ii)     Based on Actual Maximum Temperature<br><br>**Heat Wave:** When actual maximum temperature ≥ **45°C**.<br>**Severe Heat Wave:** When actual maximum temperature ≥**47°C**. |
| iii)     Criteria for describing Heatwave for coastal stations<br><br>When maximum temperature departure is **4.5°C or more** from normal, Heatwave may be described provided actual maximum temperature is **37°C or more**. |

## 18. MONTENEGRO

### Why in News?

- Less than two months after detecting its first infection, Montenegro is the first country in Europe to declare itself coronavirus-free.

### About

- Location ➔ Montenegro is a **country of South** and **Southeast Europe** on the **coast of the Balkans**.
- Borders with ➔ **Bosnia-Herzegovina** to the northwest, **Serbia** to the northeast, **Kosovo** to the east, **Albania** to the southeast, the **Adriatic Sea** to the southwest, and **Croatia** to the west.

# Polity

## 1. SVAMITVA SCHEME

**Why in News?**

- Union Minister of Rural Development & Panchayati Raj issued guidelines regarding the SVAMITVA scheme, a new initiative of the Ministry of Panchayati Raj.

**About**

- By ➔ **collaborative effort** of the Ministry of Panchayati Raj, State Panchayati Raj Departments, State Revenue Departments and Survey of India.
- Currently being implemented in six states ➔ **Haryana, Karnataka, Madhya Pradesh, Maharashtra, Uttar Pradesh and Uttarakhand.**
- Aims ➔
  - to provide an **integrated property validation solution for rural India**, engaging the latest Drone Surveying technology, for demarcating the inhabitant land in rural areas.
  - **mapping of rural housing land** can be done using the latest survey methods and drones.
- Significance ➔
  - help in **streamlining planning and revenue collection in rural areas** and ensuring clarity on property rights.
  - help in **resolving property related disputes**.
  - enable creation of **better-quality Gram Panchayat Development Plans** (GPDPs), leveraging the maps created under this programme.

## 2. SAMARTH: e-Governance platform

**Why in News?**

- Recently, The Ministry of Human Resource Development (MoHRD) has developed an e-Governance platform, SAMARTH Enterprises Resource Planning (ERP), under the National Mission of Education in Information and Communication Technology Scheme (NMEICT).

**About**

- What is it? ➔ It is an **Open Standard, Open Source Architecture, Secure, Scalable and Evolutionary Process Automation Engine** for Universities and Higher Educational Institutions.
- Benefits ➔ It will **help faculties, students** and **staff** at a University and Higher Educational Institutions.
- SAMARTH for the **first time** has been **implemented at National Institute of Technology, Kurukshetra**.
- Objectives ➔
  - The objective of this initiative is **to automate the processes of the Institute**.
  - This initiative will **enhance productivity** through better information management in the institute by seamless access to information, and its utilization for various purposes.

👉 **National Mission of Education in Information and Communication Technology Scheme (NMEICT)**

- A **Centrally Sponsored Scheme** to **leverage the potential of ICT**, in teaching and learning process for the benefit of all the learners in Higher Education Institutions in any time and mode.
- Launched in ➔ **2009**
- Significance ➔ This was expected to be a **major intervention in enhancing the Gross Enrolment Ratio** (GER) in Higher Education by 5 percentage points during the XI Five Year Plan period.
- What will it provide? ➔ It is **providing connectivity**, along with provision for access devices, to institutions, learners and content generation.

## 3. General Financial Rules (GFR)

### Why in News?

- Government has notified amendments to General Financial Rules (GFR) to ensure that goods and services valued less than 200 crore rupees are being procured from domestic firms.

### About

- What is it? ➔ The GFRs are a **compilation of rules** and **orders** of the Government of India to be **followed by all while dealing with matters involving public finances.**
- They are instructions that pertain to <u>financial matters</u>.
- Applicable to ➔ They lay down the general rules **applicable to Ministries / Departments**, and **detailed instructions** relating to the **procurement of goods**.
- Issued by ➔ They are **issued by the procuring departments broadly** in conformity with the general rules while maintaining the flexibility to deal with varied situations.

## 4. Competition Commission of India

### Why in News?

- The Competition Commission of India (CCI) is looking into allegations that Alphabet Inc's Google is abusing its market position to unfairly promote its mobile payments app Google Pay in the country.

### About

- What is it? ➔ It is a **statutory body** of the Government of India responsible for enforcing the **Competition Act, 2002**, which was duly constituted in March 2009.
- Background ➔ The Monopolies and Restrictive Trade Practices Act, 1969 (**MRTP Act**) was **repealed** and **replaced by the Competition Act, 2002**, on the recommendations of the **Raghavan committee**.
- Aim ➔ The Competition Commission of India aims to **establish a robust competitive environment** through **proactive engagement** with all stakeholders, including consumers, industry, government, and international jurisdictions.
- Composition ➔ The Commission consists of **one Chairperson** and **six Members** as per the Competition Act who shall be **appointed by the Central Government**.
  - The Chairperson and other Members shall be **whole-time Members**.
- Nature ➔ The Commission is a **quasi-judicial body** which gives opinions to statutory authorities and also deals with other cases.

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

## 5. Delimitation Commission

**Why in News?**

- Lok Sabha Speaker has nominated 15 MPs as associate members to assist the Delimitation Commission in redrawing the Lok Sabha and the Assembly constituencies of Assam, Arunachal Pradesh, Manipur, Nagaland and the J&K Union Territory.

**About**

- Delimitation ➜ It refers to the **act** or **process of fixing limits** or **boundaries of territorial constituencies** in a country or a province having a legislative body.
- Process of Delimitation ➜ Under **Article 82**, the **Parliament enacts** a **Delimitation Act** after every Census. Once the Act is in force, the Union government sets up a **Delimitation Commission**.
- Delimitation Commission ➜ It is **appointed by the President of India** and works in collaboration with the Election Commission of India.
- Composition ➜ **Retired Supreme Court judge**, **Chief Election Commissioner** and **Respective State Election Commissioners**.
- Associate members ➜ **Members of Parliament** and **Legislative Assemblies of states** for which the Delimitation Commission is set up, are nominated as associate members to help the commission in its task.
- Powers ➜ The Delimitation Commission is a **high-power body** whose orders have the force of law and **cannot be called in question before any court**.

## 6. Indian Olympic Association

**Why in News?**

- Indian Olympic Association has constituted an 11-member committee, led by Athletics Federation of India president Adille Sumariwala, to monitor annual grant and affiliation fee of its members for the 2020-2021 cycle.

**About IOA**

- What is it? ➜ The Indian Olympic Association (IOA) is the body responsible for **selecting athletes to represent India** at the Olympic Games, Asian Games, Commonwealth Games and other international athletic meets.
- Status ➜ It is registered as a **Non-Profit Organisation** under the **Societies Registration Act of 1860**.
- It is an **affiliated member of** the International Olympic Committee (**IOC**), Commonwealth Games Federation (**CGF**), Olympic Council of Asia (**OCA**) and Association of National Olympic Committees (**ANOC**).
- Members ➜ The members of IOA include **National Sports Federations**, **State Olympic Associations**, **IOC Members** and **other select multi-sport organisations.**

- Composition ➔ It is currently governed by a **32-member Executive Council**. The election for the Executive Council is held once in **every 4 years**.

## 7. RESERVATION POLICY

### Why in News?

- The Supreme Court's five-judge Constitution bench held that providing 100 per cent reservation for Scheduled Tribes in scheduled areas of a State is not permissible.

### About Fifth Schedule of the Constitution

- The Fifth Schedule under **Article 244** of the Constitution contains provisions regarding administration of **Scheduled Areas other than in Northeast India**.
- At present, Scheduled Areas have been declared in the States of Andhra Pradesh (including Telangana), Chhattisgarh, Gujarat, Himachal Pradesh, Jharkhand, Madhya Pradesh, Maharashtra, Odisha and Rajasthan.
- Scheduled Area in a State is **notified by order of the President**, after **consultation with the Governor of that State**.
- Governor submits a report, annually or whenever President requires, regarding administration of such areas.
- Each state having 'Scheduled Areas' must have a **Tribal Advisory Council consisting of 20 members**. **Three-fourths of the members** have to be **representatives of scheduled tribes** in State Legislative Assembly.
- The Governor is empowered to direct that any particular law of parliament and state assembly is either not applicable or can be applied with certain 'modifications and exceptions' to scheduled areas.

### Constitutional Provisions regarding Reservation

- **Article 15 (4)** allows the State to make any special provision for the advancement of any socially and educationally backward classes of citizens or for the Scheduled Castes and the Scheduled Tribes. This provision was extended to **admission in educational institutions** by **93rd Amendment Act, 2006 (except minority educational institutions)**
- **Article 16 (4)** allows State to make any provision for the reservation of appointments or posts **in favour of any backward class of citizens** which, in the opinion of the State, is not adequately represented in the services under the State.
- **Article 46** states that the State shall promote with **special care** the **educational** and **economic interests** of the weaker sections of the people, and, in particular, of the **Scheduled Castes and the Scheduled Tribes**, and shall protect them from social injustice and all forms of exploitation.
- **Article 243D** provides reservation of seats for **SCs and STs** in every **Panchayat**.
- **Article 243T** provides reservation of seats for **SCs and STs** in every **Municipality**.
- **Article 330** states that seats shall be **reserved** in the **Lok Sabha for the Scheduled Caste and Scheduled Tribes**.
- **Article 332** of the Constitution of India provides for **reservation of seats for the Scheduled Castes and the Scheduled Tribes in the Legislative Assemblies of the States.**

## 8. ONLINE JUSTICE DELIVERY

**Why in News?**

- The Supreme Court recently passed directions for all courts across the country to extensively use video-conferencing for judicial proceedings so that the congregation of lawyers and litigants can be avoided to maintain social distancing amid the coronavirus pandemic.

**About**

- Supreme Court invoked its power under **Article 142** of the **Constitution to validate all proceedings through video-conferencing.**
- Article 142 of the Constitution allows the Supreme Court to pass any order necessary for doing complete justice in any cause or matter pending before it.
- **Kerala High Court also conducted court proceedings** through video conferencing and also live streamed the proceedings.
- Various steps in past have also been taken to ensure online delivery of judicial services such as:
- **eCourts** Mission Mode Project of Department of Justice, **Ministry of Law and Justice**, Government of India for the **District Courts** across the country.
- Providing Video Conference facilities for 488 Court complexes and 342 jails.

## 9. REGULATION OF GOVERNMENT ADVERTISEMENTS

**Why in News?**

- Recently, some states have responded to a letter of Ministry of Information and Broadcasting regarding constitution of committees to implement the Supreme Court guidelines on the issue of government advertisements.

**About**

- Supreme Court Guidelines on Content Regulation of Government Advertising.
- Scope of advertisements- It includes both **copy (written text/audio)** and **creatives** (visuals/video/multimedia) put out in print, electronic, outdoor or digital media.
- It **does not include classified advertisements**.
- Five guiding principles of content in advertisements-
1. **Related to Government responsibilities**- The content of the government advertisement should be relevant to the governments' constitutional and legal obligations as well as the citizens' rights and entitlements.
2. **Presented in objective manner**- Advertisement materials should be presented in an objective, fair, and accessible manner and be designed to meet the objectives of the campaign.
   a. Every effort shall be made to **pre-test the material** in case of **large-scale** campaign with target audiences.
3. **Should not be directed at promoting political interests of ruling party** - They should not include the name of ruling party, party symbol or logo, any attack on the views/ actions of opposition parties in any form.
   a. They should **not include photographs of government leaders** with the exception of the President, Governor, the Prime Minister, the Chief Minister, other ministers and the Chief Justice of India.

4. **Cost effectiveness of advertisements**- There must be an optimum use of public funds which reflect a need-based advertising approach.

5. **Compliance with procedures**- Government advertising must comply with legal requirements (election laws and ownership rights) and financial regulations and procedures.

6. **Compliance and Enforcement**- Government should constitute a three-member body consisting of persons with unimpeachable neutrality and impartiality and who have excelled in their respective fields.

    a. It shall ensure the implementation of these directions.

    b. It will address complaints from the general public on violation of the guidelines prescribed by the Court.

# International Relations

## 1. Asia-Pacific Economic Cooperation (APEC)

**Why in News?**

- The Asia-Pacific Economic Cooperation (APEC) region is expected to post a 2.7 per cent economic decline in 2020 due to the impact of Covid-19

**About**

- APEC is the premier **Asia-Pacific economic forum**.
- Objective ➔ to support sustainable economic growth and prosperity in the Asia-Pacific region.
- Established ➔ **1989.**
- Members ➔ **21.**
- **India is not a Member**.
- **Member Nations** ➔ Australia; Brunei Darussalam; Canada; Chile; People's Republic of China; Hong Kong, China; Indonesia; Japan; Republic of Korea; Malaysia; Mexico; New Zealand; Papua New Guinea; Peru; The Philippines; The Russian Federation; Singapore; Chinese Taipei; Thailand; United States of America; Viet Nam.
- **Functions** ➔
    - APEC projects provide **digital skills training for rural communities** and help indigenous women export their products abroad.
    - implement **initiatives to increase energy efficiency** and promote sustainable management of forest and marine resources.
    - important new challenges: includes **ensuring disaster resilience**, **planning for pandemics**, and **addressing terrorism**.
- **Bogor Goals** ➔ These are a set of goals agreed by APEC members in 1994 in Bogor, Indonesia with the aim of free and open trade and investment in the Asia-Pacific by the year 2020.
- India was **invited to be an observer** for the first time in November 2011.

## 2. Global Report on Internal Displacement (GRID) 2020

**Why in News?**

- Recently, the Internal Displacement Monitoring Centre released its annual report on internal displacement of people.

**Finding**

- Around **50 million people** worldwide were internally displaced in 2019.
- Causes ➔ **conflict** or **disaster**, with **coronavirus** posing a new threat.
- Around 33 million new displacements were recorded in 2019, the highest annual figure since 2012.
- The IDMC **calls on governments to work** towards solving conflicts like the civil war in Syria.
- Also highlights ➔ **conflicts in the Democratic Republic of Congo**, **Yemen**, and **Afghanistan**.

👉 **Internal Displacement Monitoring Centre (IDMC)**

- It is the **world's authoritative source of data** and **analysis on internal displacement**.
- Headquartered ➜ **Geneva, Switzerland**.
- Established ➜ **1998**
- Type ➜ The Global Report on Internal Displacement (GRID) is the annual flagship report of IDMC.

## 3. Virtual Non-Aligned Movement (NAM) Summit

**Why in News?**

- PM Modi has for the first addressed the Non-Aligned Movement (NAM) summit since assuming office in 2014.

**About**

- **Azerbaijan** is the **president** of the **grouping from 2019-2022** and the meet is being organised under the leadership of President of Azerbaijan Ilham Aliyev.
- The title of the summit ➜ "**We stand together against COVID-19**".

👉 **About Non- aligned movement**

- What it is? ➜ It is a **forum of 120 developing nations** of the world that are **not formally aligned with or against any power bloc**.
- Timeline ➜
  - Non-Aligned Movement is an idea that **emerged in 1950**. The Asian-African Conference of **1955 held in Bandung** was the catalyst for the establishment of the Non-Aligned Movement.
  - The actual formation took place in **Belgrade**, where the Non-Aligned Movement was formally established by the leaders of **25 developing countries in 1961**.
- NAM is the **second-largest platform globally** in terms of country membership after the UN.
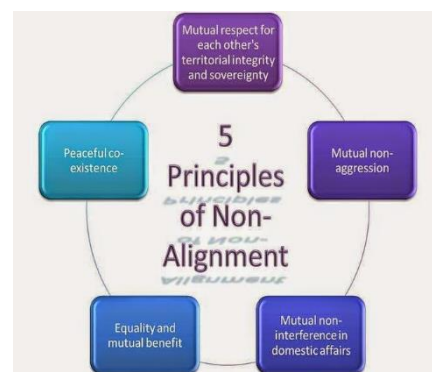
## 4. International Whaling Commission (IWC)

**Why in News?**

- Iceland will not be hunting any whales in 2020. Iceland, alongside Norway and Japan, has frequently broken the International Whaling Commission's 1986 worldwide moratorium, which indefinitely "paused" commercial whaling.

**About**

- What it is? ➜ an **Inter-Governmental Organisation** set up by the terms of the International Convention for the Regulation of Whaling (**ICRW**) signed in Washington, D.C in **1946**.
- Aim ➜ to provide for the **proper conservation of whale stocks** and thus make possible the orderly development of the whaling industry.
- Functions ➜ The main duty of the IWC is to **keep under review and revise as necessary the measures** laid down in the Schedule to the Convention which governs the conduct of whaling throughout the world.
- Members ➜ **89 countries** have the membership of in IWC and all the member countries are signatories to this convention.

- **India is a member state** of the IWC.
- Headquarters ➜ **Impington, near Cambridge, England**.
- The body is the **first piece of International Environmental Legislation** established in 1946.
- Commercial whaling was **banned by the IWC in 1986** after some species were almost driven to extinction.

**Other Information**

**Whale sanctuary:**

- In 1994, it created the **Southern Ocean Whale Sanctuary** surrounding the continent of Antarctica. Here, the IWC has **banned all types of commercial whaling**.
- Only two such sanctuaries have been designated by IWC till date. Another is **Indian Ocean Whale Sanctuary** by the tiny island nation of the Seychelles.
- Objectives:
    o To provide for the **proper conservation** of whale stocks.
    o For **orderly development of the whaling industry**.

## 5. UNICODE CONSORTIUM

**Why in News?**

- The Unicode Consortium has accepted the proposal to add two Tamil characters to the Telugu list for transcribing religious Tamil texts.

**About**

- What ➜ a **non-profit organization** based in **California, United States**.
- Established ➜ **1991**.
- Purpose ➜ To **maintain and publish the Unicode Standard** which was developed with the intention of replacing existing character encoding schemes which are limited in size and scope, and are incompatible with multilingual environments.
- Functions ➜ The Unicode Standard **assigns code to characters from different languages in the world** so that they can be understood and displayed across software platforms.
- Significance ➜ Unicode's success at **unifying character sets** has led to its **widespread adoption in the internationalization and localization of software.**

## 6. INDIA'S PERMANENT MISSION TO THE UNITED NATIONS

**Why in News?**

- India has appointed diplomat T S Tirumurti, currently serving as Secretary in the Ministry of External Affairs, as its Permanent Representative to the United Nations, succeeding Syed Akbaruddin.

**About Permanent Missions to the United Nations**

- The Permanent Mission is the **diplomatic mission** that every member state deputies to the UN, and is **headed by a Permanent Representative**, who is also referred to as the "**UN ambassador**".
- Article 1 (7) of the **Vienna Convention** on the Representation of States provides for a permanent mission.

- UN Permanent Representatives are assigned to the **UN headquarters in New York City**, and can also be **appointed to other UN offices in Geneva, Vienna, and Nairobi**.
- The Mission in New York is housed in a **27-story building** designed by the noted architect **Charles Correa in 1993** and is decorated with **MF Hussain paintings**.

### The Indian Permanent Mission at the UN

- The Permanent Mission of India to the United Nations is the **formal title of the Indian delegation to the United Nations (UN).**
- There are **currently eight Indians in senior leadership positions** at the United Nations at the levels of Under Secretary General and Assistant Secretary General.
- India was among the select members of the United Nations that **signed the United Nations Declaration at Washington on January 1, 1942**.

## 7. Taiwan & World Health Assembly

### Why in News?

- Following its successful containment of coronavirus outbreak, Taiwan has made a new push for inclusion in the World Health Assembly (WHA).

### About World Health Assembly

- What it is? ➔ **Serves as the WHO's supreme decision-making body**.
- Members ➔ The WHA, composed of representatives from all **194 member states**.
- History ➔ The first meeting of the WHA the WHO's agency's governing body, took place on **24 July 1948**.
- Functions ➔ The WHA convenes annually and is responsible for **selecting the Director-General, setting goals** and **priorities**, and approving the WHO's budget and activities.
- The members of the World Health Assembly generally **meet every year in May in Geneva**, the location of WHO Headquarters.

**Taiwan Map**

## 8. Asian Infrastructure Investment Bank (AIIB)

### Why in News?

- Recently, the Asian Infrastructure Investment Bank (AIIB) has approved US$ 500 million for 'Covid-19 Emergency Response and Health Systems Preparedness Project' initiated by India.

### About AIIB

- What is it? ➔ The Asian Infrastructure Investment Bank (AIIB) is an **multilateral financial institution** proposed by China.

- Purpose ➜ The purpose of the multilateral development bank is to provide **finance to infrastructure projects** in the **Asia-Pacific region**.
- Headquartered ➜ **Beijing, China**
- Formation ➜ **January 2016**
- Membership ➜open to **all members of the World Bank** or the **Asian Development Bank** and is divided into regional and non-regional members. AIIB **allows for non-sovereign entities to apply** for AIIB membership, assuming their home country is a member.
- Structure
  - o Voting pattern ➜ The voting shares are **based on the size of each member country's economy** (GDP in PPP terms) and not on the basis of contribution to the bank's authorized capital. China, India and Russia are the three largest shareholders.
  - o Bank's major decisions will require the support of at **least 75 per cent of the votes**.
  - o **China is the largest shareholder with 26.61 % voting shares** in the bank followed by India (7.6%), Russia (6.01%) and Germany (4.2 %).
- Board of Governors ➜ **One Governor** and **one Alternate Governor** appointed by each member country.
- Significance of AIIB ➜ The capital of the bank is **$100 billion**, equivalent to **2⁄3 of the capital of the Asian Development Bank** and about half that of the World Bank.

## 9. IMD includes PoK in weather forecasts

**Why in News?**

- Indian government has decided to begin weather forecasts for regions under Pakistan-occupied Kashmir (PoK) — Gilgit-Baltistan, Muzaffarabad and Mirpur.

**About**

- In **return Radio Pakistan also** featured updates from Srinagar, Pulwama and Ladakh.
- The '**weather war'** — a diplomatic move by India — started after Pakistan's Supreme Court issued notices to the advocate general of Gilgit-Baltistan in late April, directing them to **amend the Gilgit-Baltistan Order-2018** and **establish a caretaker government there**.

👉 **India Meteorological department**

- It is national meteorological service of the country and chief government agency dealing in everything related to **meteorology**, **seismology** and **associated subjects**.
- Formation ➜ **1875**.
- Parent organization ➜ **Ministry of Earth Sciences**.
- Headquartered ➜ **New Delhi**.

## 10. Mission Sagar

**Why in News?**

- As part of India's outreach amidst the ongoing COVID-19 pandemic, ships have departed for Maldives, Mauritius, Seychelles, Madagascar and Comoros, to provide Food Items, COVID related Medicines including HCQ Tablets and Medical Assistance Teams under Mission Sagar.

**About**

- What is it? ➔ As part of the mission, **INS Kesari** would enter the **Port of Male in the Republic of Maldives**, to provide them 600 tons of food provisions.
- The deployment is in consonance with the PMs vision of **Security and Growth for All in the Region 'SAGAR'**.
- Significance ➔ This deployment is in line with India's role as the **first responder in the region** and **builds on the excellent relations** existing between these countries to battle the COVID-19 pandemic and its resultant difficulties.
- The operation is being progressed in **close coordination** with the **Ministries of Defence and External Affairs**, and **other agencies of the govt**.

👉 **SAGAR Programme (Security and Growth for All in the Region)**

- Background ➔ SAGAR is a term coined by PM Modi in 2015 during his Mauritius visit with a **focus on the blue economy.**
- Priority ➔ It is a maritime initiative which gives priority to the Indian Ocean region for **ensuring peace, stability and prosperity of India in the Indian Ocean region.**
- The goal ➔ is to seek a **climate of trust and transparency**; **respect for international maritime rules** and **norms** by all countries; sensitivity to each other`s interests; **peaceful resolution of maritime issues**; and **increase in maritime cooperation**.
- It is in line with the principles of the **Indian Ocean Rim Association**.

👉 **IORA (Indian Ocean Rim Association)**

- IORA is an **inter-governmental organisation** to strengthen regional cooperation and sustainable development within the Indian Ocean Region.
- IORA has identified **six priority areas** ➔ namely: (1) maritime security, (2) trade and investment facilitation, (3) fisheries management, (4) disaster risk reduction, (5) academic and scientific cooperation and (6) tourism promotion and cultural exchanges.
- Established in ➔ **1997**.
- Membership ➔ IORA has **22 Member States and 9 Dialogue Partners**.
- Secretariat ➔ **Mauritius**.
- Structure ➔ IORA's apex body is the **Council of Foreign Ministers** (COM) which meets annually.

## 11. Shanghai Cooperation Organization

**Why in News?**

- External Affairs Minister of India S Jaishankar recently represented India at foreign minister meet. The meet was attended by foreign ministers through video conferencing.

**About SCO**

- What is it? ➔ The SCO is a **permanent intergovernmental international organisation**.
- It is a **Eurasian political**, **economic, and security alliance** and has been the primary security pillar of the region.

- History ➜ It was established in **2001**. It was preceded by the **Shanghai Five mechanism**.
- The Heads of State Council (HSC) ➜ is the **supreme decision-making body** in the SCO. It **meets once a year** and adopts decisions and guidelines on all important matters of the organisation.
- The organisation has two permanent bodies ➜
    o the **SCO Secretariat based in Beijing**.
    o the Executive Committee of the Regional Anti-Terrorist Structure (**RATS) based in Tashkent**.
- Membership ➜
    o Eight member states ➜ **India**, **Kazakhstan**, **China**, **Kyrgyzstan**, **Pakistan**, **Russia**, **Tajikistan**, **and Uzbekistan**.
    o Four observer states ➜ **Afghanistan**, **Belarus**, **Iran** and **Mongolia**.
- Language ➜ The SCO's official languages are **Russian and Chinese**.

## 12. G20

**Why in News?**

- Union Commerce and Industry Minister recently attended the 2nd G20 Virtual Trade & Investment Ministers Meeting, held through video-conferencing.

**About**

- What is it? ➜ G-20 is **NOT AN INTERNATIONAL ORGANIZATION**. It neither has any administrative board **nor a permanent secretariat**. Thus, it does not adopt decisions that have a direct legal impact.
- Rather, it is an **informal forum** for international cooperation on financial issues to ensure international "**financial stability**".
- Members ➜ It comprises **19 countries plus the EU**. These countries are Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Mexico, Russia, Saudi Arabia, South Africa, South Korea, Turkey, UK and USA.
- Background ➜ The G20 **Finance Ministers** and **Central Bank Governors** had been meeting regularly since **1999**. However, since 2008 (when the financial crisis broke out) G20 has met annually at head of state and government level.
- Presidency ➜ The group has **no permanent staff of its own**, so every year in December, a G20 country from a **rotating region takes on the presidency**. That country is then responsible for organising the next summit, as well as smaller meetings for the coming year
- Its significance in changing times ➜
    o Recent G20 summits have focused **not only on macroeconomy and trade**, but **also** on a **wide range of global issues** which have an immense impact on the global economy, such as development, climate change and energy, health, counter-terrorism, as well as migration and refugees.
    o The G20 has sought to realize an **inclusive** and **sustainable world** through its contributions towards resolving these global issues.

## 13. West Bank Annexation plans by US

**Why in News?**

- U.S. Secretary of State Mike Pompeo met Israeli PM Benjamin Netanyahu to discuss plans to annex parts of the West Bank.

**About West Bank**

- Location ➔ The West Bank is **located to the west of the Jordan River**.
- It is a patch of land about one and a half times the size of Goa, was **captured by Jordan after the 1948 Arab-Israeli War.**
- **Israel snatched it back** during the Six-Day War of 1967 and has occupied it ever since.
- It is a landlocked territory, **bordered by Jordan to the east** and Israel to the south, west and north.
- Following the **Oslo Accords** between the Israeli government and the Palestine Liberation Organization (PLO) during the 1990s, **part of the West Bank came under the control of the Palestinian Authority**.
- With varying levels of autonomy, the Palestinian Authority controls close to **40 per cent of West Bank today**, while the rest is controlled by Israel.

👉 **Gaza Strip**

- Location ➔ The Gaza Strip is a small boot-shaped territory **along the Mediterranean coast between Egypt and Israel.**
- A couple of years later in 2007, **Hamas**, an anti-Israel military group, **took over Gaza Strip**. The militia group is often involved in violent clashes with the Israeli Defence Forces.
- While **Palestine** has staked **claim to both territories** — **West Bank and Gaza Strip** — Israel's objective has been to keep expanding Jewish settlements in these regions.

## 14. Baltic Travel Bubble

**Why in News?**

- The Baltic countries of Estonia, Latvia and Lithuania have opened their borders to one another, creating a coronavirus "travel bubble" with an improvised idea to boost travel into their countries.

**About Baltic Travel Bubble**

- Aim & objective ➔ The 'Baltic travel bubble' aims to facilitate the citizens of these three countries to **travel within the region without hassles**.
- However, those who are **coming from any other than these three countries** would be required to follow **self-isolation** guidelines and stay in **quarantine** for **exactly 14 days**.

👉 **Baltic countries**

- Location ➔ Baltic countries are located in the **northeastern region of Europe**, and comprises **Estonia, Latvia, and Lithuania**, on the eastern shores of the Baltic Sea.
- The Baltic states are bounded on the **west and north by the Baltic Sea,** which gives the region its name, on the **east by Russia**, on the **southeast by Belarus**, and on the **southwest by Poland**.
- Membership ➔ The region has been **part of the European Union** since 2004 and since 2007 has been a member of the **European Schengen Free Travel Area**.
- Resources ➔ The Baltic region is **not rich in natural resources** but is **leaders in cutting technology developments** and **start-up hubs**.
- India and Baltic countries ➔ share a **strong bond** based on historical connect and common **linguistic roots**.

## 15. International Telecommunications Union (ITU)

### Why in News?

- World Telecommunication and Information Society Day 2020 was observed on 17 May with the theme "Connect 2030: ICTs for the Sustainable Development Goals (SDGs).

### About

- Objective of WTISD ➔ To **help raise awareness of the possibilities** that the use of the Internet and other information and communication technologies (ICT) can bring to societies and economies.
- Date of observance ➔ **17 May** since 1969, marking the **founding of ITU** and the signing of the first International Telegraph Convention in 1865.

### 👉 International Telecommunication Union (ITU):

- The International Telecommunication Union (ITU), is a **specialized agency of the United Nations** (UN) that is responsible for issues that concern information and communication technologies.
- Formation ➔ Originally founded in **1865**, as the International Telegraph Union, the **ITU is the oldest existing** international organization.
- Headquarters ➔ **Geneva, Switzerland**.
- Membership ➔ There are **193 Member States** of the ITU, including all UN member states except the Republic of Palau, plus the Vatican City. and nearly **800 private sector entities and academic institutions**.
- India and the ITU ➔ India has been member of ITU since 1869 and has also been a **regular member of the ITU Council since 1952.**
- Functions ➔
    - The ITU **coordinates the shared global use of the radio spectrum**, **promotes international cooperation** in **assigning satellite orbits**, works to improve telecommunication infrastructure in the developing world.

- The ITU is **active in areas including** broadband Internet, latest-generation wireless technologies, aeronautical and maritime navigation, radio astronomy, satellite-based meteorology, convergence in fixed-mobile phone, Internet access, data, voice, TV broadcasting, and next-generation networks.

## 16. Indo-US Vaccine Action Programme (VAP)

### Why in News?

- In the context of the current pandemic, India and US under the Vaccine Action Programme (VAP) are planning to collaborate on the development and testing of vaccine candidates and diagnostics for Covid-19.

### About

- What is it? ➜ The VAP is an Indo-US bilateral program, which **supports a broad spectrum of activities** relating to <u>new</u> and **improved vaccines**.
- Focus ➜ The programme was **designed to encompass** laboratory-based research, evaluation of candidate vaccines, testing for clinical development, vaccine quality control, delivery of vaccines and so on.
- The programme is under implementation **since July, 1987** under the **Gandhi-Reagan Science & Technology Agreement.**
- Significance ➜
- **Major projects were initiated under VAP** in the areas of rotaviral diarrhoea, dengue, viral hepatitis, acute respiratory infections, tuberculosis, malaria, typhoid, E. coli, leishmaniasis, pneumococcal, HIV/AIDS, etc.
- With completion of **25 years of its implementation**, DBT celebrated the silver jubilee function of VAP in September 2012.
- Background ➜ The U.S has already announced a donation of **200 ventilators to India**. The ventilators, which will be paid for by the U.S. Agency for International Development (USAID), are **part of the $5.9 million in funding** announced till date for India.

## 17. United Nations Relief and Works Agency for Palestine Refugees

### Why in News?

- India has given USD 2 million in aid to the United Nations Relief and Works Agency (UNRWA) working for the welfare of Palestinian refugees.

### About UNRWA

- Established ➜ The United Nations Relief and Works Agency for Palestine Refugees (UNRWA) was **established by the United Nations in 1949.**
- Purpose ➜ To **provide assistance and protection for registered Palestine refugees** to help them achieve their full potential in human development.
- Refugees ➜ The term refugee covers Palestinian **who fled** or wer<u>e</u> **expelled from their homes during the 1948 Palestine War**.
- Areas of Operation ➜
    - The aid is provided in five areas of operation namely **Jordan**, **Lebanon**, **Syria**, the **Gaza Strip** and the **West Bank** including **East Jerusalem**.
    - The aid for Palestinian refugees **outside these five areas** is **provided by UNHCR**.

- Services ➔ It provides **education, health care**, and **social services** to the population it supports.
- Funding ➔ It is funded almost entirely by **voluntary contributions** from UN Member States. It also **receives some funding from the Regular Budget of the United Nations.**
- Significance ➔ It is the only UN agency dedicated **to helping refugees from a specific region or conflict**.

## 18. WHO Executive Board

### Why in News?

- Union Health Minister Dr Harsh Vardhan is set to take charge as the chairman of the WHO Executive Board at its 147th session.

### About WHO Executive Board

- The World Health Organization (WHO) is governed by two decision making bodies — the **World Health Assembly** and the **Executive Board**.
- Composition ➔ The Executive Board is composed of **34 members** technically qualified in the **field of health** with members being **elected for three-year terms**.
- Chairman ➔ It is held by **rotation for one year** by each of the **WHO's six regional groups**: African Region, Region of the Americas, South-East Asia Region, European Region, Eastern Mediterranean Region and Western Pacific Region.
- Meeting ➔ The Board **meets at least twice a year** once usually in January and then in May.
- Functions ➔ To give **effect to the decisions** and **policies of the World Health Assembly**, to advise it and generally to facilitate its work.

### 👉 WHO

- The World Health Organization (WHO) is a **specialized agency of the United Nations** responsible for international public health.
- Headquartered ➔ **Geneva, Switzerland**.
- Established ➔ in **7 April 1948**, which is commemorated as World Health Day.
- Its flagship publication ➔ the **World Health Report**, provides expert assessments of global health topics and health statistics on all nations.
- The World Health Assembly (WHA) ➔ composed of representatives from all **194 member states**, serves as the agency's **supreme decision-making body**.
- Funding ➔ **Voluntary donations** from member states (such as the US) contribute 35.41%, assessed contributions are 15.66%, philanthropic organisations account for 9.33%, UN organisations contribute about 8.1%; the rest comes from myriad sources.

## 19. Open Skies treaty

### Why in News?

- Recently, the United States of America (USA) has announced that it will exit the Open Skies Treaty (OST) due to continuous violation of the treaty by Russia and changes in the security environment.

### About Open Skies treaty

- Timeline ➜ It was **signed in 1992** and came into **effect in 2002.**
- What is it? ➜ It is an agreement that allows its **34 signatories** countries to **monitor arm development** by conducting surveillance flights (unarmed) over each other's territories.
- Therefore, the treaty established an **aerial surveillance system** for its participants.
- Both **US** and **Russia are signatories** of the treaty.
- **India is not a member** of this treaty.
- Kyrgyzstan has signed, but not ratified the treaty.
- Significance ➜ It was agreed just after the Cold War to allow signatories to **avoid nasty surprises** by **monitoring rival militaries.**
- Issues with the OST ➜
  - The **U.S.** has used the treaty **more intensively than Russia**.
  - USA's Stand ➜ **Russia misused** its flights over the US and Europe to identify critical infrastructure for potential attack in a time of war.
  - Russia's Stand ➜ **Russia has denied** the allegations and warned that the withdrawal will affect the interests of all of 35 participating countries.
  - This move by the USA has further **deepened doubts** on **extension of the New START treaty**, which expires in February, 2021.
  - Throughout its term, the Trump administration has been skeptical of arms control agreements. In 2019, the **U.S. and Russia walked away** from the 1987 **Intermediate-Range Nuclear Forces Treaty**.

👉 **Intermediate-Range Nuclear Forces Treaty**

- Objective ➜ Under the INF treaty, the US and Soviet Union agreed **not to develop, produce, possess or deploy** any **ground-based ballistic** and **cruise missiles** that have a range between 500 and 5,500 km.
- It **exempted** the **air-launched** and **sea-based missile systems** in the same range.
- Significance ➜ The INF treaty helped **address the fears of an imminent nuclear war in Europe**.
- It also **built some trust** between Washington and Moscow and contributed to the end of the Cold War.

👉 **New START pact**

- Full name ➜ The **New Strategic Arms Reduction Treaty** (New START).
- The new Strategic Arms Reduction Treaty (START) is a treaty **between the United States of America and the Russian Federation** on measures for the further reduction and limitation of strategic offensive arms.
- Timeline ➜
  - It entered into force on **5th February, 2011**.
  - It is a **successor** to the **START framework of 1991** (at the end of the Cold War) that limited both sides to 1,600 strategic delivery vehicles and 6,000 warheads.
- Concern ➜ The **USA has been worried** that **extending New Start** would **negatively impact** an arms deal with China and Russia.
- It is concerned that **China's nuclear stockpile** could be doubled if the New Start Treaty continued as is, without including China.
- The New Start Treaty also suffered from verification inadequacies and that the U.S. intended to establish a **new arms control regime which would include China.**

## 20. New Development Bank

**Why in News?**

- Union Minister of Finance & Corporate Affairs Smt. Nirmala Sitharaman attended the Special Board of Governors meeting of the New Development Bank (NDB) through video-conference.

**About NDB**

- What is it? ➔ It is a **multilateral development bank** operated by the BRICS states (Brazil, Russia, India, China and South Africa).
- Established ➔ in **2014**, at the 6th BRICS Summit at Fortaleza, Brazil.
- Capital ➔ The initial authorized capital of the bank is **$100 billion**.
- Purpose ➔ The bank is set up to **foster greater financial and development cooperation** among the five emerging markets.
- In the **Fortaleza Declaration**, the leaders stressed that the NDB will strengthen cooperation among BRICS and will supplement the efforts of multilateral and regional financial institutions for global development.
- Headquartered ➔ **Shanghai, China**.
- Roles and functions ➔ The New Development Bank will **mobilise resources for infrastructure and sustainable development projects** in BRICS and other emerging economies and developing countries, to **supplement existing efforts** of multilateral and regional financial institutions for global growth and development.
- Voting ➔ In the New Development Bank **each participant country will be assigned one vote**, and none of the countries will have veto power.
- In 2018, the NDB received **observer status in the United Nations General Assembly**, establishing a firm basis for active and fruitful cooperation with the UN.

## 21. Korean Armistice Agreement

**Why in News?**

- As per the United National Command both Koreas breached their armistice agreement when they exchanged gunfire at the border on May 3, 2020.

**About Korean Armstice Agreement**

- The Korean Armstice Agreement **signed on 27 July 1953** is the armistice that brought about a complete **cessation of hostilities of the Korean War**.
- It was **not the end of a war,** but **only a cessation** of hostilities in an attempt to negotiate a lasting peace.
- Military commanders from China and North Korea signed the agreement on one side, with the US-led United Nations Command signing on behalf of the international community.

👉 **What is the Demilitarized Zone (DMZ)?**

- The DMZ marks where the **1950-53 Korean War** — when **China and North Korea battled UN forces led by the United States** — ended with an armistice, not a treaty.

- It is a 2 km-wide buffer, stretching coast to coast across the peninsula, lined by both sides **with razor wire, heavy armaments and tank traps.**
- A Military Demarcation Line (MDL) **marks the boundary between the two Koreas**.

👉 **Why it is significant?**

- Vast stretches of the DMZ have been **no man's land** for **more than 60 years**, where wildlife has flourished undisturbed.
- Last year, US President **Donald Trump met with North Korean leader Kim Jong Un** at the **demilitarized zone** separating the two Koreas, in **Panmunjom**.

## 22. WHO Foundation

### Why in News?

- World Health Organization Director General announced the creation of the 'WHO Foundation' that will enable it to tap new sources of funding, including the general public.

### About WHO Foundation

- It is an **independent grant-making entity** that will support the WHO's efforts to **address the most pressing global health challenges** and to deliver on the organization's **triple billion goals**.
- The foundation is **legally independent from the WHO**. It is established under the **laws of Switzerland**.
- Contributions ➔ will facilitate contributions from the **general public, individual major donors** and **corporate partners to WHO**.
- Headquarters ➔ **Geneva, Switzerland**
- Triple Billion Goals ➔ These goals featured in **WHO's five-year strategic plan** which aims to:
    - protect 1 billion people from health emergencies
    - extend universal health coverage to 1 billion people and
    - assure healthy lives and wellbeing to 1 billion people by 2023.

# Society

## 1. GLOBAL REPORT ON FOOD CRISES (GRFC) 2020

**Why in News?**

- According to the 2020 Global Report on Food Crises (GRFC), up to 135 million people were living in food crises in 2019 – up from 113 million a year earlier.

**About**

- Produced by ➔ the **Global Network Against Food Crises**, which is made up of international humanitarian and development partners.



Up to 135 million people were living in food crises in 2019 – up from 113 million a year earlier, according to the World Food Programme
FOOD CRISES, 2019 *(one million people or more in Crisis* or worse)*

| Country | Value |
|---|---|
| Yemen | **15.9 million people** *(53% of population)* |
| D.R. Congo | 15.6m *(26%)* |
| Afghanistan | 11.3m *(37%)* |
| Venezuela | 9.3m *(32%)* |
| Ethiopia | 8.0m *(27%)* |
| South Sudan | 7.0m *(61%)* |
| Syria | 6.6m *(36%)* |
| Sudan | 5.9m *(14%)* |
| Northen Nigeria | 5.0m *(5%)* |
| Haiti | 3.7m *(35%)* |

Top 10 countries account for 65% of total population (88m) in Crisis or worse

**Finding**

- At **135 million**, the number of people in Crisis or worse (IPC/CH Phase 3 or above) in 2019 was the highest in the four years of the GRFC's existence.
- An estimated **75 million stunted children** were living in the **55 food-crisis countries** analysed.
- **Conflict/insecurity** was still the **main driver of food crises in 2019**, but weather extremes and economic shocks became increasingly significant.
- **Over half of the 77 million acutely foodinsecure people** in countries where **conflict was identified** as the primary driver were in the **Middle East and Asia**.
- **Africa** had the **largest numbers of acutely food-insecure people** in need of assistance in countries badly affected by weather events, particularly in the Horn of Africa and Southern Africa, followed by Central America and Pakistan.
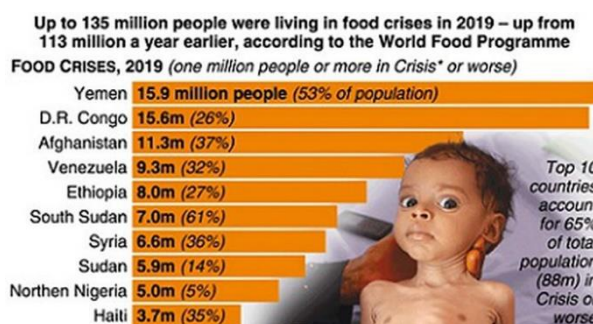
## 2. UNICEF "Lost at Home" report

**Why in News?**

- UN Children's Fund (UNICEF) has published a report named UN the "Lost at Home" report.

**About**

- **Almost 33 million new displacements** were recorded in 2019 — around 25 million (natural disasters) and 8.5 million (conflict and violence).
- There were **12 million new displacements of children in 2019**: around 3.8 million (conflict and violence) and 8.2 million (disasters linked mostly to weather-related events).
- India status ➔ **More than five million people** were internally displaced in India due to natural disasters, conflict and violence in 2019.

👉 **United Nations Children's Fund (UNICEF)**

- What it is? ➔ is **special program of UN** devoted to aiding national efforts to improve the health, nutrition, education, and general welfare of children.
- Established ➔ **1946** to provide relief to children in countries devastated by World War II.
- Headquartered ➔ **New York City**.
- It was awarded **Nobel Prize for Peace in 1965**.
- Funding ➔ Its activities are **financed by both government and private contributions**.

## 3. Vande Bharat and Samudra Setu Missions

### Why in News?

- India is all geared to operate flights and naval vessels to repatriate Indian nationals stranded abroad.

### About Vande Bharat

- What it is? ➔ is Vande Bharat Mission' will see the operation of **64 flights** from May 7 to May 13 to **bring back around 15,000 Indian nationals stranded abroad**.
- Significance ➔ Once completed, it may turn out to be the **largest evacuation operation** ever since the 1990 airlift of 1.7 lakh people from Kuwait.

### 👉 About Operation Samudra Setu

- What it is? ➔ The Indian Navy launched 'Operation Samudra Setu' (Sea Bridge) as a **part of national effort to repatriate Indian citizens from overseas**.
- **Indian Naval Ships Jalashwa** and **Magar** are presently enroute to the port of Malè, Republic of Maldives to commence evacuation operations from 08 May 2020 as part of Phase-1.
- Significance ➔ A total of one thousand persons are planned to be evacuated during the first trip.
- INS Jalashwa ➔ is the **largest amphibious platform** in the Navy and is based at the **Eastern Naval Command headquarters in Visakhapatnam**.

## 4. PRIME MINISTER'S RESEARCH FELLOWSHIP (PMRF) SCHEME

### Why in News?

- Union HRD Ministry has recently carried out various amendments in Prime Minister's Research Fellowship Scheme to boost research in the country.

### About Changes

- **GATE Score is reducing** ➔ Now for the students from any recognised institute/ university (other than IISc/ IITs/NITs/IISERs/IIEST/CF IIITs), the requirement of GATE Score is **reduced to 650 from 750 apart from minimum CGPA of 8 or equivalent.**
- **Two channels of entries** ➔ **direct entry** and **lateral entry**.
- **Under the lateral entry** ➔ candidates pursuing PhD in **any PMRF granting institution can apply** for the PMRF scheme if he/she satisfies certain conditions, as prescribed.

- **Research and Innovation Division** ➔ To boost research a **dedicated Division** is being created in the ministry. This division will be **headed by a director** who will be coordinating research work of various institutions coming under MHRD.

👉 **About PMRF**

- Aim ➔ The Prime Minister's Research Fellows (PMRF) Scheme has been designed for **improving the quality of research** in **various higher educational institutions** in the country. With attractive fellowships, the scheme seeks to attract the best talent into research.
- When ➔ The scheme was announced in the **Budget 2018-19**.
- Features ➔ The institutes which can offer **PMRF include** all the IITs, all the IISERs, Indian Institute of Science, Bengaluru and some of the top Central Universities/NITs that offer science and/or technology degrees.

## 5. Sample Registration System

**Why in News?**

- The Registrar General of India released its Sample Registration System (SRS) bulletin based on data collected for 2018.

**About**

- Birth rate ➔ The national birth rate in 2018 stood at **20 per one thousand of the population**.
- **Bihar has the highest** birth rate at 26.2.
- Death Rate ➔ The national death rate in 2018 stood at **6.2 per one thousand of the population**.
- **Chhattisgarh has the highest** death rate at 8.
- Infant mortality rate (IMR) ➔ The national IMR in 2018 stood **at 32 per one thousand of the population**. The IMR at an all-India level has declined from 50 to 32 in the last decade. **Madhya Pradesh has an IMR of 48** and **Nagaland 4**.

👉 **Sample Registration Bulletin (SRS)**

- Initiated In ➔ **the late 1960s**.
- Aim ➔ to provide **reliable estimates of birth and death rates** for the States and also at All India level.
- Functions ➔ At present, the Sample Registration System (SRS) provides reliable annual data on fertility and mortality at the state and national levels **for rural** and **urban areas separately**.
- In this survey, the sample units, villages in rural areas and urban blocks in urban areas are **replaced once in ten years**.
- The data largely **reflects past trends** as far as the position of states is concerned with marginal improvements at national level on health indices.
- Timeline ➔ Initiated on a pilot basis by the Registrar General of India in a few **states in 1964-65**, it became **fully operational during 1969-70**.

👉 **Registrar General of India**

- Formation ➔ **1961**

- Parent organization ➜ **Ministry of Home Affairs**.
- Functions ➜ It **arranges, conducts and analyses the results of the demographic surveys of India** including Census of India and Linguistic Survey of India.
- Registrar ➜ The position of Registrar is usually **held by a civil servant** holding **the rank of Joint Secretary**.

## 6. Atal Pension Yojana

### Why in News?

- The flagship social security scheme of the Government of India - 'Atal Pension Yojana' (APY) - has completed five years of implementation and garnered over 2.2 crore subscribers.

### About Yojana

- Target Segment ➜ The scheme was launched on 9th May, 2015, with the objective of creating a **universal social security system for all Indians,** especially the **poor**, the **under-privileged** and the **workers in the unorganised sector.**
- Administered By ➜ **Pension Fund Regulatory and Development Authority** through National Pension System (NPS).
- Eligibility ➜ **Any citizen of India** can join the APY scheme. The age of the subscriber should be **between 18-40 years.** The contribution levels would vary and would be low if a subscriber joins early and increases if she joins late.
- Benefits ➜
    o It provides a minimum guaranteed pension ranging **from Rs 1000 to Rs 5000 on attaining 60 years of age**.
    o The amount of pension is guaranteed for lifetime **to the spouse on death of the subscriber**.
    o In the event of death of both the subscriber and the spouse, the entire pension corpus is **paid to the nominee**.
- Tax Benefits ➜ Contributions to the Atal Pension Yojana (APY) are **eligible for tax benefits** similar to the National Pension System (NPS).
- Analysis ➜
    o The scheme has been implemented comprehensively across the country **covering all states and Union Territories** with **male to female subscription ratio of 57:43**.
    o However, **only 5%** of the eligible population has been covered under APY till date.

### 👉 About Pension Fund Regulatory and Development Authority

- Function ➜ PFRDA is the **pension regulator of India**. It **regulates and administers the National Pension System** (NPS) along with administering the Atal Pension Yojana (APY).
- Status ➜ A **statutory autonomous body** under the PFRDA Act, 2013.
- Administration ➜ PFRDA consists of a **Chairperson** and **not more than 5 members**, of whom at least 3 shall be whole-time members, to be appointed by the Central Government.
- Parent organization ➜ It works under the **Department of Financial Services** under the Ministry of Finance.

## 7. Global Nutrition Report 2020

**Why in News?**

- The Global Nutrition Report 2020 has released recently which identifies India as having the highest rates of inequalities in malnutrition.

**About Report**

- Released by ➔ the **World Health Organisation** (WHO).
- Timeline ➔ The Global Nutrition Report was conceived following the first **Nutrition for Growth Initiative Summit** (N4G) in **2013**.
- The **first report** was **published in 2014**.
- It acts as a report card on the world's nutrition—**globally**, **regionally, and country by country**—and on efforts to improve it.
- It is a **multi-stakeholder initiative**, consisting of a Stakeholder Group, Independent Expert Group and Report Secretariat.

> **Stunting-** low height for age,
>
> **Wasting-** low weight compared to height,
>
> **Underweight-** low weight for age,
>
> **Malnutrition** includes both under and over nutrition and
>
> **Anaemia-Lack** of Healthy Red blood cells.

👉 **Key Takeaways**

- **India** is among the **88 countries** that are likely to **miss global nutrition targets by 2025**.
- Stunting and wasting among children ➔ **37.9% of children** under 5 years are stunted and **20.8% are wasted** compared to the **Asia average of 22.7%** and **9.4% respectively**.
- Overweight and Obesity ➔ Rate of overweight and obesity continues to rise affecting almost a fifth of the **adults at 21.6% of women** and **17.8% of men.**
- Anaemia ➔ **One in two women** of reproductive age is anaemic.
- Underweight children ➔ Between 2000 and 2016, rates of underweight have **decreased from 66.0% to 58.1% for boys** and **54.2% to 50.1% in girls.** However, it is still high compared to the average of 35.6% for boys and 31.8% for girls in Asia

👉 **Global Nutrition Targets**

- In 2012, the World Health Assembly identified **six nutrition targets** for maternal, infant and young child nutrition to be **met by 2025**. These are ➔
    o Reduce stunting by 40% in children under 5.
    o Reduce the prevalence of anaemia by 50% among women in the age group of 19-49 years.
    o Ensure 30% reduction in low-birth weight.
    o Ensure no increase in childhood overweight.
    o Increase the rate of exclusive breastfeeding in the first six months up to at least 50%
    o Reduce and maintain childhood wasting to less than 5%

## 8. National Migrant Information System (NMIS)

**Why in News?**

- The National Disaster Management Authority (NDMA) has developed an online Dashboard – National Migrant Information System (NMIS).

**About**

- Aim ➔ The NMIS aims to **capture the information regarding the movement of migrants** and facilitate the smooth movement of stranded persons across States.
- Functions ➔ The **key data** pertaining to the persons migrating has been **standardized for uploading** such as name, age, mobile no., originating and destination district, date of travel etc., which States are already collecting.
- **States** will be **able to visualize how many people are going out from** where and how many are reaching destination States.
- The **mobile numbers** of people can be **used for contact tracing** and movement monitoring during COVID-19.
- Benefits ➔
  o The portal helps maintain a **central repository** on migrant workers and **help in speedy inter-State communication/co-ordination** to facilitate their smooth movement to native places.
  o It has additional advantages like **contact tracing**, which may be useful in overall COVID-19 response work.

## 9. INITIATIVES TO BOOST EDUCATION SECTOR

**Why in News?**

- Union Finance Minister announces several initiatives to boost Education Sector.

**About**

- **PM e-VIDYA** ➔ A comprehensive initiative will be launched which **unifies all efforts** related to **digital/online/on-air education**. This will enable multi-mode access to education, and includes:
  1. **DIKSHA (one nation-one digital platform)** ➔ which will now become the nation's digital infrastructure for providing **quality e-content in school education** for **all the states/UTs**;
  2. **TV (one class-one channel)** where one **dedicated channel** per grade for each of the classes 1 to 12 will provide access to quality educational material;
  3. **SWAYAM** online courses in **MOOCS format** for school and higher education;
  4. **IITPAL** for **IITJEE/NEET preparation**; and
  5. study material **for the differently abled** developed on **Digitally Accessible Information System (DAISY)** and in sign language on NIOS website/ YouTube.
- **The Manodarpan initiative** ➔ is being launched to provide **psychosocial support to students**, **teachers** and families for mental health and emotional wellbeing through a website, a toll-free helpline, national directory of counselors, interactive chat platform, etc.
- Government is **expanding e-learning in higher education**. **Top 100 universities will start online courses**. Also, online component in conventional Universities and ODL programmes will also be raised from present 20% to 40%.
- **New National Curriculum and Pedagogical Framework** ➔ for school education, teacher education and early childhood stage to **prepare students and future teachers** as per **global benchmarks**.

- **A National Foundational Literacy and Numeracy Mission** ➔ will be launched, for <u>ensuring</u> that every child in the country necessarily **attains foundational literacy** and **numeracy**. This mission will cover the learning needs of <u>nearly 4 crore children</u> in the **age group of 3 to 11 years**.

## 10. Social Protection Response Programme

**Why in News?**

- The World Bank has announced a $1 billion assistance under the proposed Accelerating India's COVID-19 Social Protection Response Programme.

**About Programme**

- Aim ➔ To support India's efforts at **providing social assistance to the poor and vulnerable households** severely impacted by the COVID-19 pandemic.
- Implementation ➔ It will be **implemented by the Ministry of Finance**, Government of India.
- Funding ➔ It will be funded in <u>two phases</u> – an immediate allocation of **$750 million** for fiscal year 2020 and a **$250 million** second tranche that will be made available for fiscal year 2021:
    - The **first phase** will be implemented through the Pradhan Mantri Garib Kalyan Yojana (PMGKY).
    - In the **second phase**, additional cash and in-kind benefits based on local needs will be extended through state governments and portable social protection delivery systems.

👉 **World Bank**

- Background ➔ World Bank is one of five institutions created at **Breton Woods Conference in 1944**.
- The World Bank is an **international financial institution** that provides loans to developing countries for capital programs.
- It comprises of **two institutions** ➔
    1. International Bank for Reconstruction and Development (IBRD)
    2. International Development Association (IDA).
- Formation ➔ **July 1944**.
- Headquarters ➔ **Washington DC, United States**.
- Motto ➔ **Working for a World Free of Poverty**.
- Membership ➔ **189 countries** (IBRD), **173 countries** (IDA)
- The World Bank is **one of the five components** of the World Bank Group, which is part of the United Nations system.
- World Bank Group also includes **three more subsidiary organisations** viz.
    1. International Finance Corporation (**IFC**),
    2. Multilateral Investment Guarantee Agency (**MIGA**), and
    3. International Centre for Settlement of Investment Disputes (**ICSID**)

## 11. PM Vaya Vandana Yojana pension scheme

**Why in News?**

- Government of India has extended Pradhan Mantri Vaya Vandana Yojana (PMVVY) pension scheme meant for senior citizens till March 31, 2023.

### About PMVVY

- Aim ➔ To provide **social security during old age** and to protect elderly persons **against a future fall in their interest income** due to uncertain market conditions.
- It is a Pension Scheme **exclusively** for the **senior citizens aged 60 years and above**.
- Implementation ➔ Scheme can be purchased offline as well as online through **Life Insurance Corporation (LIC) of India**
- Investment limit ➔ One can invest a **maximum amount of Rs.15 lakh**.
- Benefits ➔
    - Pension Payment: On **survival of the Pensioner** during the policy term of **10 years**, pension in arrears (at the end of each period as per mode chosen) shall be payable.
    - Death Benefit: On death of the Pensioner during the policy term of 10 years, the **Purchase Price** shall be **refunded to the beneficiary.**
- Interest Rate ➔ It provides initially an assured rate of **return of 7.40 % per annum** for the year 2020-21 per annum and thereafter to be **reset every year**.
- Loan ➔ Loan facility is available **after completion of 3 policy years**.
- Tax ➔ The scheme is **exempted from GST**.

## 12. CoAST India (Collaboration/Covid Action Support Group) Platform

### Why in News?

- India Observatory has come up with a GIS-enabled dashboard called CoAST India to monitor migrants in India.

### About

- What is it? ➔ It is a **GIS-enabled dashboard** that includes an **India map reflecting the movement of migrants in real time** on their long journeys, often on foot, along with facilities and relief organisations on their routes.
- It is a collaboration with **Anand-based Forest Ecological Security** (FES) as its **main nodal point**.
- How it works? ➔
- It draws information from **55 organisations** on the ground, **mostly in villages**, and aims to make such data available so that it would **enable governments** and **small local civil society groups** to be of **assistance**.
- The **map matches** "**time and spatial data**, on **administrative facilities** in the area, transportation and healthcare facilities of an area and summaries, on the fly, in **real time of people passing by**".

### 👉 India Observatory

- What is it? ➔ It is **India's first socio, economic and ecological open-source** integrated Geospatial data platform.
- Function ➔ The observatory is **designed to supplement local level decision** making by village communities, Panchayats, NGOs and government officials.
- Structure ➔ It has the '**India Data Platform**' at its core, which is built on open source and brings together data on over 1,600 parameters, ranging from village to national level in the form of maps, graphs, tables and infographics.

- Benefit ➔ It is **freely available for civil society organizations**, **students**, **government departments** and **citizens**.

## 13. GENDER VIOLENCE AND COVID-19

### Why in News?

- Recently, UN Women has urged member-states to include prevention of violence against women in their action plans on COVID-19, calling the rise in gender-based violence a "shadow pandemic".

### About Recent measures taken by the Government

- **Channelizing One Stop Centres: MoW&CD**, has instructed to ensure that One Stop Centres, which provide legal and psycho-social help with **NIMHANS**, to survivors of gender-based violence, and link with local medical teams, police and the **National Legal Services Authority (NALSA)** so that their services are not impacted due to restrictions on movement.
- Nearly 1,000 people joined the video conference live, including the staff members of One Stop Centres, as well as shelter homes for women in distress (Swadhar Greh, Ujjwala homes) and Working Women Hostels.

### State's Initiatives:

- The **Uttar Pradesh police** launched an initiative in March, "**Suppress corona, not your voice**" asking battered women to **call a helpline** number to enable women police officers to reach them following a complaint.
- A **community radio program in Uttar Pradesh**, helped raise awareness about violence against women, how to recognize domestic violence, and ways to address the issue. Callers were encouraged to call in and share their experiences.
- Another campaign, "**Bell Bajao!**" (Ring the Bell), calls on men and boys to take a **stand against domestic violence**.
- "**Mpower 1on1**" is a newly launched **helpline in Mumbai** to report domestic abuse, which has tied up with the **Government of Maharashtra and Brihanmumbai Municipal Corporation (BMC)** to launch a toll-free helpline number.
- There are mainly three laws in India that deal directly with domestic violence:
    1. The Protection of Women from Domestic Violence Act, 2005:
    2. The Dowry Prohibition Act:
    3. Section 498A of the Indian Penal Code: This is a **criminal law**, which applies to husbands or relatives of husbands who are cruel to women.

## 14.GLOBAL EDUCATION COALITION

### Why in News?

- United Nations Educational, Scientific and Cultural Organisation (UNESCO) has launched the Global Education Coalition.

### About Global Education Coalition (GEC)

- Global Education Coalition is a **multi-sector partnership** involving the United Nations agencies, international organisations, private sector, civil society representatives, philanthropic and non-government organisations etc.

- It seeks to facilitate **<u>inclusive learning opportunities</u>** for children and youth during the period of educational disruption due to COVID 19 pandemic.
- Aims of GEC
  - Help countries in mobilising resources and implementing innovative and context-appropriate solutions **to <u>provide education remotely</u>**, leveraging hi-tech, low-tech and no-tech approaches.
  - Seek **<u>equitable solutions and universal access</u>**.
  - Ensure coordinated responses and avoid overlapping efforts
  - Facilitate the return of students to school when they reopen to avoid an upsurge in dropout rates

### About UNESCO

- UNESCO is the **<u>specialised agency of the United Nations</u>** that seeks to build peace through international cooperation in Education, the Sciences and Culture.
- It was established on **<u>16 November, 1945</u>**.
- **<u>Headquarters- Paris, France</u>**.
- It has **<u>193 Members and 11 Associate Members</u>**.

# Security

## 1. Aero India

**Why in News?**

- Recently, the Ministry of Defence has announced that the 13th edition of Aero India will be held from February 3 to 7, 2021 at Air Force Station Yelahanka (Karnataka).

**About**

- Biennial international military and civil airshow.
- Established ➔ **1996**.
- Venue ➔ **Yelahanka Air Force Station, Bengaluru, Karnataka, India**.
- Organised by ➔ the **Defence Exhibition Organisation**, Ministry of Defence.
- It is a premier event that **draws international and Indian military and civil aircraft makers**, their support industries, military brass and government dignitaries, and business visitors.

### Defence Exhibition Organisation

- Status ➔ an **autonomous organisation** of the Indian Government.
- Established ➔ **1981**.
- Objective ➔ to **promote export potential** of the Indian defence industry.
- Function ➔ responsible for **organising international exhibitions** such as DEFEXPO and Indian participation at overseas exhibitions.

## 2. Military Engineering Service

**Why in News?**

- Defence Minister Rajnath Singh has approved a proposal for the abolition of 9,304 posts in the Military Engineering Service (MES) out of the total 13,157 vacancies of the basic and industrial staff.

**About**

- Why? ➔ This is in line with the recommendations of the **Lt. Gen. D.B. Shekatkar (Retd.) Committee**.
- MES ➔ is an **Inter Service Organization** but has both Army and Civilian component of officers and other subordinate staff.
- Functions ➔
  - While execution of all construction works is **through contracts**, execution of all maintenance services are both through **contracts** as well as **departmentally employed labour** (DEL).
  - It is mainly **employed in** the **engineering** and **construction for the Indian Armed Forces** including the Indian Army, Indian Air Force, Indian Navy, Indian Ordnance Factories, DRDO and the Indian Coast Guard.
  - Also **involved in the execution of sophisticated** and **complex projects** like airfields, buildings, workshops, roads, sports complex, runways, hangars, dockyards, wharves and other marine structures.

- Significance ➔ Military Engineer Services is **one of the oldest** and **largest government defense infrastructure development agency** in India.

## 3. The Resistance Front

**Why in News?**

- The Resistance Front has claimed responsibility for the attack in Kupwara district along the Line of Control on April 5, 2020, where 5 army personnel were killed.

**About**

- What is it? ➔ The Resistance Front (TRF) is a front organization of the **Pakistan-backed Lashkar-e-Taiba** (LeT).
- It was **promoted by Pakistan** and created in August 2019 following the withdrawal of Article 370.
- Why was it created? ➔
- To blame all the attacks on TRF in order **to escape scrutiny by the Financial Action Task Force** (FATF) and
- To **project Kashmiri terrorism** as a resistance movement by Kashmiris.

👉 **About FATF**

- It is an **inter-governmental body** set up as a global money laundering and terrorist financing watchdog.
- Mandate ➔ To **set standards and promote effective implementation** of legal, regulatory and operational measures for combating money laundering, terrorist financing and other related threats to the integrity of the international financial system.
- Formation ➔ **1989**
- Headquarters ➔ **Paris, France**.
- Members ➔ **37 member countries** and **2 regional organisations**. India is also a member.

## 4. Tour of Duty" (ToD) scheme

**Why in News?**

- Indian Army is considering to allow common citizens to join the 1.3- million-strong force for a three-year tenure to serve the nation under the 'Tour of Duty (ToD) or 'Three Years Short Service' scheme.

**About ToD**

- It will be a **voluntary engagement**.
- This scheme was for those who did **not want a full career** in the Army but still wanted to put on the uniform.
- The Army hoped that this would **attract individuals from the best colleges**, including the Indian Institute of Technology.
- For this, it proposes that the individual's earnings for the three-year period could be **made tax-free**, and he/she could be given **preference in public sector jobs** as well as **post-graduate courses**.

> **Tooth to Tail Ratio:**
>
> The tooth-to-tail ratio (T3R) is the amount of military personnel it takes to supply and support ("tail") each combat soldier ("tooth").
> The ratio is not a specific measure but rather a general indication of an army's actual military might in relation to the resources it devotes to supply, upkeep, and logistics.

- The proposal adds that the **nation** and the **corporates** are likely to benefit from a trained, disciplined, confident, diligent and committed men and women who have completed the ToD.
- "Tour of Duty (ToD)" tenure is for **both officers and jawans**.
- It will bring in savings from salaries and pensions, and "**decrease the frustration**" of officers who are released after 10-14 years of short service, when they are in their mid-30s.
- The **entry criteria** for candidates for the internship will **remain the same**, and will **not be relaxed**.
- **Age and fitness level** will be among the **key criteria for recruitment** under the 'Tour of Duty (ToD) or 'Three Years Short Service' scheme.
- If approved by the government, the **Navy** and the **Air Force could also be asked to implement it**.
- Benefits ➔
    - This is expected to result in **significant reduction in pay and pensions** and free up funds for the Army's modernisation.
    - **Tackling unemployment**
    - **Analysing the cost of training** incurred on each personnel compared to the limited employment of the manpower for three years, the proposal calculates that it will indeed have a **positive benefit**.
    - The **savings for only 1000 jawans** could be **₹11,000 crore**, which could be used for the much-needed modernisation of the Army.
- Concern ➔
    - The **Army's pay and pension bill has been increasing steeply** over the years, accounting for 60% of its budget allocation.
    - In the last five years, though the growth in the defence budget has been **68%**, and **for defence salaries 75%,** defence pensions have **increased by a staggering 146%.**

## 5. Defence Testing Infrastructure Scheme (DTIS)

**Why in News?**

- In order to give a boost to domestic defence and aerospace manufacturing, Raksha Mantri has approved the launch of the Defence Testing Infrastructure Scheme (DTIS).

**About**

- Aim ➔ To **promote indigenous defence production** with special focus on participation of MSMEs and Start Ups by **bridging gaps in defence testing infrastructure** in the country.
- Duration ➔ The scheme would run for the duration of **five years** and envisages to **set up six to eight new test facilities** in partnership with private industry.
- Testing facilities coverage ➔ DTIS guidelines specify the establishment of **testing facilities for** Unmanned Aerial Vehicles (UAVs), radar, electronics/telecom equipment, rubber testing, noise and shock testing, specialised driving tracks, ship motion testing, ballistics and blast testing, and environmental test facilities.
- Funding ➔
    - Government will provide up to **75% funding** in the form of '**Grant-in-Aid**'.
    - The remaining 25% of the project cost will have to be **borne by the Special Purpose Vehicle** (SPV) whose constituents will be **Indian private entities and State Governments**.
    - The SPVs under the scheme will be **registered** under **Companies Act 2013**.

- Significance ➔ It will facilitate indigenous defence production, consequently **reduce imports of military equipment** and **help make the country self-reliant.**

## 6. ICGS Sachet

### Why in News?

- Recently, the Defence Minister of India has commissioned Indian Coast Guard Ship (ICGS) Sachet and two Interceptor Boats (IBs) C-450 and C-451 in Goa via video conference.

### About ICGS Sachet

- What is it? ➔ The ICGS Sachet, the first in the series of five offshore patrol vessels (OPVs) has been designed & built indigenously **by Goa Shipyard Limited** (GSL) and is fitted with state-of-the-art navigation and communication equipment.
- 'Sachet' means **alert**.
- Features ➔ The **105 metre long ship** is designed to carry a **twin-engine helicopter, four high speed boats, one inflatable boat** for swift boarding and search and rescue operations.
- The ship is also capable of **carrying limited pollution response equipment** to undertake oil spill pollution response at sea.
- Uniqueness ➔ It is for the **first time** in Indian maritime history that a ship was **commissioned through digital medium**, maintaining strict protocol of social distancing in the backdrop of Covid-19 pandemic.

### 👉 IBs C-450 and C-451

- Built by ➔ These are indigenously designed and built by **Larsen & Toubro Shipyard, Hazira** and fitted with the **latest navigation and communication equipment**.
- Features ➔ The **two 30 metre long boats** are designed for **high speed interception, close coast patrol and low intensity maritime operations.**
- The quick response capability of the IBs makes it an **ideal platform** to **respond** and **thwart any emerging maritime situation.**
- The ICG, which is the **fourth largest Coast Guard** in the world, has established itself as a reliable force in coastal security.
- The ICG along with Indian Shipyards plays a major role in realising **India's SAGAR Vision** (Security and Growth for All in the Region) and **Make in India or Self-reliant India Mission** (Atmanirbhar Bharat Abhiyan).
- Deployment ➔ The ship and boats, on joining the ICG fleet, will **be deployed extensively for EEZ** (exclusive economic zone) surveillance, coastal security and other duties.

### 👉 Indian Coast Guard

- Established ➔ on **18th August 1978** by the **Coast Guard Act, 1978** of the Parliament of India as an independent Armed force of India.
- Parent organization ➔ **Ministry of Defence**.
- Headquarter ➔ **New Delhi**.
- Jurisdiction ➔ It has jurisdiction over the territorial waters of India including **contiguous zone and exclusive economic zone (EEZ).**

- Functions ➜ It is responsible for **marine environment protection** in maritime zones of India and is **coordinating authority** for response to oil spills in Indian waters.

## 7. SONIC BOOM

**Why in News?**

- The 'loud sound' heard recently in Bengaluru was revealed to have emanated from an IAF test flight involving a supersonic profile. The sound effect caused due to such high-speed flights is known as 'sonic boom'.

**About**

- What is it? ➜ A sonic boom is said to occur when an **object travels through the air faster than the speed of sound and creates shock waves**. (supersonic, >1225 kmph at sea level)
- This can lead to a **huge emission in energy**, usually in the form of sound, which can be similar to an **explosion of thunderclap.**
- Impacts ➜
  - When such aircraft fly at a **low altitude**, the sonic boom can become intense enough to **cause the glass to crack** or **cause health hazards**.
  - Overland supersonic flights have thus been **banned in many countries**.
- Supersonic flights ➜
  - In 1947, the American military pilot **Chuck Yeager** became the **first** to breach the sound barrier, flying the **Bell X-1 aircraft at 1127 kmph.**
  - According to the IAF website, India's fastest jets include the **Sukhoi SU-30 MKI** (Mach 2.35) and the **Mirage-2000 (Mach 2.3).**

## 8. INS Sunayna

**Why in News?**

- Recently, Indian Naval Ship (INS) Sunayna has completed its 80-days long anti-piracy mission in Gulf of Aden.

**About INS Sunayna**

- What is it? ➜ It is the **second Saryu-class patrol vessel** of the Indian Navy.
- It is an **indigenously designed** and **built Naval Offshore Patrol Vessel** (NOPV).
- Built by ➜ state-owned **Goa Shipyard Limited** (GSL).
- Commissioned ➜ into the Navy fleet on **15 October 2013**.
- Functions ➜ It is designed to undertake **fleet support operations**, **coastal and offshore patrolling**, **ocean surveillance** and **monitoring of sea lines of communications** and **offshore assets and escort duties**.
- It is currently assigned to the Navy's **Southern Naval Command** (SNC) based in Kochi.
- Operation Nistar ➜ In June 2018, the vessel was involved in **'Operation Nistar'**, a **Humanitarian Assistance and Disaster Relief** (HADR) mission to evacuate Indian nationals from cyclone hit **Socotra islands, Yemen**.

- Operation Sankalp ➔ INS Sunayna, along with Kolkata-class stealth guided-missile destroyer **INS Chennai** (D65), was also sent to the **Persian Gulf** and **the Gulf of Oman** under **'Operation Sankalp'** in June 2019 to protect Indian shipping interests amid tensions in the **Strait of Hormuz**.

## 9. Military Gender Advocate of the Year Award

**Why in News?**

- Recently women peacekeepers from India and Brazil have jointly won the United Nations Military Gender Advocate of the Year 2019 Award.

**About**

- Background ➔ United Nations "**Military Gender Advocate of the Year Award**" was created in 2016.
- It **recognizes the dedication** and **effort of an individual military peacekeeper** in promoting the principles of **UN Security Resolution 1325** on Women, Peace and Security in a peace operation context.
- **Major Suman Gawani** of the Indian Army, a Military Observer formerly deployed with the **United Nations Mission in South Sudan** and Commander Carla Monteiro de Castro Araujo, a Brazilian Naval officer have been chosen for the award.
- For the **first time, two peacekeepers** will receive the **award jointly** for their contribution to this important cause.

👉 **United Nations Mission in South Sudan**

- What is it? ➔ The United Nations Mission in South Sudan (UNMISS) is the **newest United Nations peacekeeping mission** for the recently independent South Sudan, which became **independent on 9 July 2011**.
- Established ➔ UNMISS was **established in 2011** under United Nations Security Council Resolution 1996.
- It is composed of **15,000 military personnel**, **1,800 police**, and **2,800 civilian workers**.
- Headquartered ➔ **South Sudanese capital of Juba**.

# Culture

## 1. RAJA RAVI VARMA

**Why in News?**

- 29th April is the birth anniversary of the famed Indian painter Raja Ravi Varma(1848-1906).

**About Raja Ravi Varma**

- **Greatest painters** in the history of Indian art.
- Patronised ➔ by **Ayilyam Thirunal**, the next Maharaja of Travancore and began formal training thereafter.
- Famous works ➔ include **Damayanti Talking to a Swan**, **Shakuntala Looking for Dushyanta**, **Nair Lady Adorning Her Hair**, and **Shantanu** and **Matsyagandha**.
- Contribution ➔
    o best examples of the **fusion of European techniques with a purely Indian sensibility**.
    o Notable for making **affordable lithographs of his paintings** available to the public, which greatly enhanced his reach and influence as a painter and public figure.
    o His depictions of **Hindu deities** and **episodes from the epics and Puranas** have received profound acceptance.
- Honours ➔
    o In **1904,** Viceroy Lord Curzon, on behalf of the British King Emperor, bestowed upon Varma the **Kaisar-i-Hind Gold Medal.**
    o In **2013**, the **crater Varma** on Mercury was named in his honor.
    o Government of Kerala has instituted an award called **Raja Ravi Varma Puraskaram**, which is awarded every year to people who show excellence in the field of art and culture.

## 2. GI tags to new products

**Why in News?**

- Chak-Hao, the black rice of Manipur and the Gorakhpur terracotta and the Kovilpatti kadalai mittai of Tamil Nadu have bagged the Geogrphical Indication (GI) tag.

**About**

👉 **About Chak-Hao**

- What & Location ➔ a **scented glutinous (sticky) rice** which has been in cultivation in Manipur over centuries, and is characterised by its special aroma.
- Property ➔ **black in colour** and takes the longest cooking time of 40-45 minutes due to the presence of a **fibrous bran layer** and **higher crude fibre content**.
- Significance ➔
    o Normally eaten during **community feasts** and is served as Chak-Hao kheer.
    o Used by **traditional medical practitioners** as part of traditional medicine.

☞ **About Gorakhpur terracotta**

- What ➔ terracotta work of Gorakhpur is a centuries **old traditional art form**, where the **potters make various animal figures** like, horses, elephants, camel, goat and ox with hand applied ornamentation.
- Location ➔ The application was filed by Laxmi Terracotta Murtikala Kendra in **Uttar Pradesh**.

☞ **About Kovilpatti kadalai mittai**

- What is it? ➔ a **candy** made of **peanuts held together with glistening syrup**, and topped with wisps of grated coconut dyed pink, green and yellow.
- Made by ➔ using all-natural ingredients such as the **traditional** and **special 'vellam'** (jaggery) and **groundnuts** and **water from the river Thamirabarani** is used in the production, which enhances the taste naturally.
- Location ➔ manufactured in Kovilpatti and adjacent towns and villages in Thoothukudi district, **TamilNadu**.

☞ **About Geographical Indication (GI)**

- What is it? ➔ A GI is primarily an agricultural, natural or a manufactured product (handicrafts and industrial goods) originating from a definite geographical territory.
- Governance ➔ governed by **Geographical Indications of Goods (Registration & Protection) Act, 1999**. It is issued by the Geographical Indications Registry (Chennai).
- Significant ➔
  - Provides **legal protection**, thus preventing unauthorized use of the registered GIs by others.
  - Leads to recognition of the product in other countries thus **boosting exports**.
- Parent organisation ➔ **Ministry of Commerce and Industry**.
- Three Important treaties related to Geographical Indication are as follows
  1. **Paris Convention on trademarks** (1883, still in force, 176 members).
  2. **Lisbon Agreement on the Protection of Appellations of Origin and their Registration** (1958).
  3. **WTO Agreement on Trade-Related Aspects of Intellectual Property Rights** (TRIPS).

## 3. Chithirai Festival

**Why in News?**

- For the first time, in place of Madurai's Chithirai Festival, a simple celestial union is set to take place that will be streamed online.

**About Chithirai Festival**

- Chithirai Festival or Chithirai Thiruvizha is an **annual celebration** celebrated in **the city of Madurai** during the month of April.
- It is celebrated during the **Tamil month of Chithirai**.
- It lasts for one month of which the first 15 days mark the celebrations of the coronation of **Goddess Meenakshi** and the **Marriage of Lord Sundareswara** and **Goddess Meenakshi**.

- The next 15 days mark the celebrations of the <u>Journey of Lord Alagar</u> from Kallazhagar temple in Alagar Koyil to Madurai.

👉 **About Meenakshi Temple**

- It is historic **Hindu temple**.
- Location ➔ on southern bank of Vaigai River in temple city of **Madurai, Tamil Nadu**.
- Deity➔ dedicated to **Meenakshi**, a form of Parvati, and her consort, **Sundareswar**, a form of Shiva.
- Timeline ➔ built during **reign of Pandyas**.
- Structure ➔ It houses **14 gopurams** (gateway towers), ranging from 45–50m in height and **tallest is southern tower**, 51.9 metres high.

## 4. Thrissur Pooram

**Why in News?**

- For the first time since its inception, Thrissur Pooram will be observed with rituals within the temple premises with just a few participants. This was done in the wake of the lockdown to prevent the spread of Covid-19.

**About**

- Thrissur Pooram is an **annual Hindu festival**.
- Location ➔ **held in Kerala.**
- Duration and Time ➔ It is celebrated on the day when the star sign "**Pooram**" occurs in the Malayalam month of "**medam (April-May)".**
- History ➔ Thrissur Pooram has a tradition of <u>more than 200 years</u>. This spectacular event was the **brainchild** of **Raja Rama Varma**, famously known as **Sakthan Thampuran**, the Maharaja of Cochin (1790–1805).
- Participants ➔
    - The main temples in Thrissur such as the **Paramekkavu Devi temple** and the **Thiruvambadi Sri Krishna temple** have to pay their obeisance to **Lord Shiva**, the **presiding deity of the famed Vadakunnathan temple**.
    - The **two aforementioned temples oppose each other** during the celebrations and their "**elephant teams**" compete with one another on the sixth day through the **elephant procession**, **fire works** and **overall cultural representation.**

## 5. VESAK

**Why in News?**

- 'Vesak', the Day of the Full Moon in the month of May, is being observed by United Nations on May 7, 2020.

**About**

- What it is? ➔ is the **most sacred day for Buddhists** around the world.
- Other names ➔ It is also known as **Buddha Purnimaand Buddha Day**.
- Date of observance ➔ Vesak, falls on the **full moon day** (Purnima) of the month Vaishakha (May), hence the occasion is referred to as **Buddha Purnima** in India.

- Significance ➔ The day **commemorates birth**, **enlightenment** and **Death** (or Parinirvana) **of Lord Buddha**, the founder of Buddhism, all of which is said to take have taken place on the same day.
- Recognition by United Nations (UN) ➔ The General Assembly, by its resolution in **1999**, recognized **internationally the Day of Vesak**. It was done to acknowledge the **contribution** that **Buddhism made to humanity**.

## 6. Gurudev Rabindranath Tagore

**Why in News?**

- National Gallery of Modern Art will organise a Virtual Tour titled "Gurudev – Journey of the Maestro through his visual vocabulary" to commemorate the 159th birth anniversary of Rabindranath Tagore.

**About**

- Popularly known as '**Gurudev**', he was born on 7th May 1861, in Kolkata
- Tagore was primarily known as a **writer**, **poet**, **playwright**, **philosopher** and **aesthetician**, **music composer** and **choreographer**, founder of a unique educational institution – **Visva- Bharati and a painter**.
- Contributions ➔
    o He wrote the **National Anthems of India** and **Bangladesh**.
    o He left his imprint on art and played a role in transforming its practices and ushering into **modernism**.
- Awards ➔ In 1913, he became the **first Indian to receive a Nobel Prize in Literature** for his novel '**Geetanjali**'.
- Role in the freedom struggle ➔
- He denounced **British imperialism**, yet he did **not fully support** or agree with Gandhi and his Non-cooperation Movement.
- In his writings, he also voiced his support of Indian nationalists.
- He viewed British rule as a **symptom of the overall "sickness" of the social "disease" of the public**.
- Rabindranath Tagore wrote the song **Banglar Mati Banglar Jol** (Soil of Bengal, Water of Bengal) to unite the Bengali population after Bengal partition in 1905.
- He also wrote the famed '**Amar Sonar Bangla'** which helped ignite a feeling of nationalism amongst people.
- He started the **Rakhi Utsavwhere** people from Hindu and Muslim communities tied colourful threads on each other's wrists.
- Tagore rejected violence from the British as well and **renounced the knighthood** that had been given to him by Lord Hardinge in 1915 in protest of the violent Amritsar massacre in which the British killed at least 1526 unarmed Indian citizens.
- What freedom meant for Tagore? ➔ True freedom means **the ability to be truthful** and **honest with oneself** otherwise autonomy loses all of its worth.

## 7. Construction of Rath Yatra chariots allowed

**Why in News?**

- The Ministry of Home Affairs (MHA) has allowed the construction of chariots for the annual Rath Yatra at Jagannath Puri in Odisha.

**About RATH YATRA**

- Location ➜ Ratha Yatra is a **Hindu festival** associated with **Lord Jagannath held at Puri in Odisha**.
- Origin ➜ It is regarded as the **oldest Ratha Yatra** taking place in India whose descriptions can be found in Brahma Purana, Padma Purana, and Skanda Purana and Kapila Samhita.
- When ➜ This **annual festival** is celebrated on **Ashadha Shukla Paksha Dwitiya** (second day in bright fortnight of Ashadha month).
- Objective ➜ The festival commemorates Jagannath's annual visit to Gundicha Temple via **Mausi Maa Temple** (aunt's home) near Balagandi Chaka, Puri.

👉 **About Jagannath Temple**

- History ➜ The temple is believed to be constructed in the **12th century** by **King Anatavarman Chodaganga Deva** of the **Eastern Ganga Dynasty.**
- Jagannath Puri temple is called '**Yamanika Tirtha'** where, according to the **Hindu beliefs**, the power of '**Yama'**, the god of death has been nullified in Puri due to the presence of Lord Jagannath.
- This temple was called the "**White Pagoda**" and is a part of Char Dham pilgrimages (Badrinath, Dwaraka, Puri, Rameswaram).
- Structure ➜
  - There are four gates to the temple- Eastern '**Singhdwara'** which is the main gate with two crouching lions, Southern '**Ashwadwara'**, Western **'Vyaghra Dwara'** and Northern '**Hastidwara'**. There is a **carving** of each form at each gate.
  - In front of the entrance stands the **Aruna stambha** or **sun pillar**, which was originally at the Sun Temple in Konark.

## 8. Gopal Krishna Gokhale

### Why in News?

- PM paid tributes to Gopal Krishna Gokhale on his birth anniversary. He was born on 9 May 1866.

### About

- Ideology ➜ Gokhale worked towards **social empowerment**, **expansion of education** , struggle for freedom in India for three decades and **rejected the use of reactionary** or **revolutionary ways**.
- Role in INC ➜ associated with the **Moderate Group** of Indian National Congress (joined in 1889). He became **president of INC in 1905 in Banaras session**.
- Role in Colonial Legislatures ➜
  - Between **1899 and 1902**, he was a member of the Bombay Legislative Council followed by work at the **Imperial Legislative Council from 1902 till his death (1915).**
  - He was instrumental in the formation of the **Minto-Morley Reforms** of 1909, which eventually became law.
- Related Societies and Other Works ➜
  - He established the **Servants of India Society** in 1905 for the expansion of Indian education.
  - He was also associated with the **Sarvajanik sabha** journal started by Govind Ranade.
  - In 1908, Gokhale founded the **Ranade Institute of Economics**.
  - He started english weekly newspaper, **The Hitavada** (The people's paper).

- o Published a daily newspaper entitled **Jnanaprakash**, which allowed him to voice his reformist views on politics and society.
- o He contributed articles to the **English weekly Mahratta**.
- o He served as Secretary of the **Deccan Education Society**.
- Mentor to Gandhi ➔
    - o As a liberal nationalist, he is regarded by **Mahatma Gandhi as his political guru**.
    - o Gandhi wrote a book in Gujarati dedicated to the leader titled '**Dharmatma Gokhale'**.

## 9. Maharana Pratap

### Why in News?

- May 9 marks birth anniversary of Maharana Pratap, the 13th Rajpur king of Mewar. Maharana Pratap was born in 1540 and died at the age of 56 in 1597.

### About

- Description ➔
    - o Rana Pratap Singh also known as Maharana Pratap was born on **May 9th 1540 in Kumbhalgarh, Rajasthan**.
    - o He was the **13th King of Mewar** and was the eldest son of Udai Singh II.
- Battle of Haldighati ➔
    - o It was fought on **18 June 1576** between the **forces Maharana Pratap**; and the **Mughal emperor Akbar's forces**, led by Man Singh I of Amber.
    - o The **Mughals were the victors** but failed to capture Pratap, who escaped.
- Resurgence ➔
    - o Mughal pressure on Mewar **relaxed after 1579** following **rebellions in Bengal and Bihar**.
    - o Taking advantage of the situation, **Pratap recovered Western Mewar** including Kumbhalgarh, Udaipur and Gogunda.
    - o During this period, he also built a new capital, **Chavand**, near modern Dungarpur.
- Chetak ➔ Chetak is the name given in traditional literature **to the horse ridden by Maharana Pratap at the Battle of Haldighati**. However, some Historians debate it.
- Pratap Gaurav Kendra ➔ It is a **tourist spot at Tiger Hill in Udaipur city, Rajasthan**. It aims at providing information about Maharana Pratap and the historical heritage of the area with the help of modern technology.

## 10. Toda Embroidery of the Nilgiris

### Why in News?

- Many women and indigenous Toda artisans from the Nilgiris are producing thousands of stylish, embroidered masks for local residents, police, and sanitary workers.

### About Toda Tribe

- Residence ➔ Toda Tribe is a **pastoral tribe** of the **Nilgiri Hills of southern India**.
- Language ➔ The Toda language is **Dravidian** but is the most unusual and different among the languages belonging to the Dravidian family.

- They live in settlements of from **three to seven small thatched houses**.
- Work ➔ They traditionally **trade dairy products**, as well as **cane** and **bamboo articles**, with the other Nilgiri peoples.

👉 **About Toda Embroidery**

- Name ➔ In the Toda language it is called **pohor**.
- The traditional Toda dress is a **distinctive shawl** which is called **putukuli**.
- Significance ➔ Considered a grand garment, it is **only worn for special occasions** like visits to the temple, festivals and finally as a shroud.
- Depiction ➔ The **embroidery** is **done by Toda women** and has **distinctive red and black** (and occasionally blue) **thread** work in geometric designs on unbleached white cotton fabric.
- Recognition ➔ It has got a **Geographical Indications (GI) Tag**.

## 11. SOHRAI KHOVAR PAINTING; TELANGANA'S TELIA RUMAL

**Why in News?**

- Recently, Jharkhand's Sohrai Khovar painting and Telangana's Telia Rumal have been given the Geographical Indication (GI) tag.

**About**

- What is it? ➔ The Sohrai Khovar painting is a **traditional** and **ritualistic mural art**.
- Practiced ➔ It is being practiced **by local tribal women** during local harvest and marriage seasons using local, naturally available soils of different colors in the **area of Hazaribagh district of Jharkhand**.
- Features ➔ Style features a **profusion of lines**, **dots**, **animal figures** and **plants**, **often representing religious iconography** i.e.visual image and symbols.
- Where is it painted? ➔ It has been painted on the **walls of important public places in Jharkhand**, such as the Birsa Munda Airport in Ranchi.

👉 **About Telia Rumal Handloom**

- What is it? ➔ Telia Rumal cloth involves **intricate handmade work** with **cotton loom** displaying a **variety of designs** and **motifs** in three particular colors such as **red, black and white**.
- Features ➔ It is an art of **Ikat tradition** using **natural vegetable dyes**.
- Ikkat is a dyeing technique **used to pattern textiles**.
- Uniqueness ➔ Telia Rumal can only be created using the **traditional handloom process** and not by any other mechanical means as otherwise, the very quality of the Rumal would be lost.
- History ➔ The telia fabrics were **used by nobles** (Nizam's dynasty) in Hyderabad. The fabric was exported to Persian Gulf, Middle East, Aden, East Africa, Singapore and Burma.

## 12. Konark Sun Temple

**Why in News?**

- The Ministry of New and Renewable Energy (MNRE) has taken up the Complete Solarisation of Konark sun temple and Konark town in Odisha.

**About**

- Aim ➜ The Scheme envisages setting up of **10 MW grid** connected solar project and various solar off-grid applications like **solar trees, solar drinking water kiosks, off-grid solar power plants** with battery storage etc.
- Implementation ➜ by **Odisha Renewable Energy Development Agency** (OREDA).
- Funding ➜ The Project will be taken up with a **100% Central Financial Assistance** (CFA) support of around Rs. 25 Crores from Government of India through Ministry of New & Renewable Energy (MNRE).

👉 **About Konark Sun Temple**

- Location ➜ It is located on the **coastline of Odisha in Puri district**. The temple was originally constructed at the mouth of the **river Chandrabhaga**, but the waterline has receded since then.
- History ➜ It was built in the **13th century**. The temple is attributed to **king Narasingha deva I** of the Eastern Ganga Dynasty about 1250 CE.
- Features ➜
- Also called the **Surya Devalaya**, the temple is dedicated to the **Hindu god Surya**.
- The temple complex has the appearance of a **100-foot high solar chariot, with 24 wheels** and **pulled by six horses**, all carved from stone.
- It is a classic example of the **Odisha style of Architecture** or **Kalinga Architecture**.
- It is oriented towards the east so that the **first rays of the sunrise strike** the **main entrance**. The wheels of the temple are **sundials**, which can be used to calculate time accurately to a minute.
- The temple, built from **Khondalite rocks**, was also known as **'BLACK PAGODA'** due to its dark colour.
- It was given the status of a **World Heritage Site in 1984 by UNESCO**.
- The temple remains a site of contemporary **worship for Hindus**, during the annual **Chandrabhaga Festival**, around the month of February.

## 13. Shahapur's Katkari Tribe

**Why in News?**

- PIB news which discusses the success story of Katkari Tribe, a PVTG in Maharashtra regarding the implementation of Van Dhan Yojana.

**About Katkari Tribe**

- Location ➜ The Katkari is a **Scheduled Tribe** mostly belonging to the **state of Maharashtra**.
- Language ➜ They are **bilingual**, speaking the Katkari language, a dialect of the **Marathi-Konkani languages**, with each other; they speak Marathi with the Marathi speakers, who are a majority in the populace where they live.

- PVTG status ➔ In Maharashtra the Katkari have been designated a **Particularly vulnerable tribal group** (PVTG), along with **two other groups** included in this sub-category: the **Madia Gond** and the **Kolam**.
- Small numbers of Katkari also live the states of **Gujarat, Karnataka and Rajasthan**.
- Food ➔ The food habits of the Katkari are a reason for their **social exclusion**. The Katkari are one of only a few tribal groups in India that eat rodents, including the **Little Indian Field Mouse, the Black Rat and the Greater** or **Indian Bandicoo**t.
- They believe that **their strength and long life comes from** eating the meat of rodents.

👉 **About PVTGs**

- Criteria ➔ There are certain tribal communities who have **declining or stagnant population**, **low level of literacy**, **pre-agricultural level of technology** and are **economically backward.**
- Where does it live? ➔ They generally inhabit **remote localities** having **poor infrastructure** and **administrative support.**
- These groups are among the **most vulnerable section** of our society as they are **few in numbers**, have not attained any significant level of social and economic development.
- Identification ➔ **75 such groups** have been identified and categorized as Particularly Vulnerable Tribal Groups (**PVTGs**).

## 14. Purandara Dasa

### Why in News?

- The Karnataka State government had directed Kannada University, Hampi to form an expert committee to solve the mystery over the birthplace of Purandara Das.

### About Purandara Dasa

- Purandara Dasa (1484 –1565) was a **Haridasa**, a renowned **composer of Carnatic music**, a great devotee of the **Supreme Lord Krishna**, a **Vaishnava poet**, a saint and a **social reformer**.
- He was a disciple of the Dvaita **philosopher-saint Vyasatirtha**, and a contemporary of yet another Haridasa, **Kanakadasa**.
- He was a **composer, singer** and **one of the chief founding**-proponents of South Indian classical music (Carnatic music).
- In honour of his significant contributions to Carnatic music, he is widely referred to as the **Pitamaha** (lit. "father" or "grandfather") of Carnatic music.
- He is respected as an **Avatara** (incarnation) of the **great sage Narada** (a celestial being who is also a singer).
- He introduced the **raga Mayamalavagowla** and is noted for **composing Dasa Sahithyad**.
- Purandara Dasa's Carnatic music compositions are **mostly in Kannada**, though some are in Sanskrit.

👉 **Confusions over his birthplace**

- As '**Purandara Vithala'** was the pen name of his compositions, it was widely believed that the **mystic poet was born in Purandar** (near Pune), **Maharashtra**.
- However, many in Malnad claimed that he **hailed from this region**.

- According to historians, **Araga in Malnad** was a **buzzing commercial centre** during the Vijayanagar rule, the period to which the poet belonged to.
- Prior to his initiation to Haridasa tradition, Purandara Dasa was a **rich merchant** and was called as **Srinivasa Nayaka.**

## 15. Ramkinkar Baij

**Why in News?**

- Ministry of Culture's has organised virtual tour titled "Ramkinkar Baij | Journey through silent transformation and expressions" to commemorate his 115th Birth Anniversary.

**About Ramkinkar Baij**

- Ramkinkar Baij (1906-1980), one of the most seminal artists of modern India, was an **iconic sculptor, painter and graphic artist.**
- He was born in **Bankura, West Bengal**.
- In 1925, he made his way to **Kala Bhavana**, the **art school at Santiniketan** and was under the **guidance of Nandalal Bose.**
- Encouraged by the **liberating, intellectual environment of (Tagore's) Santiniketan**, his **artistic skills** and **intellectual horizons blossomed**, thus acquiring greater depth and complexity.

**His works** ➔

- He **assimilated** the **idioms of the European modern visual language** and **yet** was rooted in his **own Indian ethos.**
- He experimented restlessly with forms, moving freely from **figurative to abstract and back to figurative**.
- His themes were steeped in a **deep sense of humanism** and an instinctive understanding of the **symbiotic relationship** between **man and nature.**
- Both in his paintings and sculptures, he **pushed** the **limits of experimentation** and **ventured** into the use of new materials.
- For instance, his use of **unconventional material**, for the time, such as cement concrete for his monumental public sculptures set a new precedent for art practices.

**Awards and honours** ➔

- He was invited to participate in the **Salon des Réalités Nouvelles** in **1950** and in the Salon de Mai in 1951.
- In 1970 - **Padma Bhushan** for his irrefutable contribution to Indian art.
- In 1976 he was made a **Fellow of the Lalit Kala Akademi**.
- In 1976, he was conferred the honorary Doctoral Degree of '**Desikottama' by Visva Bharati**.

## 16. Kheer Bhawani Mela

**Why in News?**

- In the UT of Jammu and Kashmir, the Annual Kheer Bhawani Mela in Tulmulla village of Ganderbal district has been cancelled by its religious trust.

**About**

- Location ➜ Ragyna Devi Temple in Tulmulla Ganderbal village, near Srinagar (J&K) is popularly known as "**Mata Kheer Bhawani temple**".
- When? ➜ The festival falls on the auspicious day of "**Zeshta Ashtami**".
- The term kheer refers to **rice pudding** that is **offered in the spring to propitiate the Goddess**, which became part of the name of the temple.
- Significance ➜
- Kheer Bhawani Mela is one of the **biggest religious functions** of **Kashmiri Pandit Community**.
- It is believed and rather has been seen that the **colour of the water** in the spring around the **Kheer Bhawani Temple changes its colour** with the change in the circumstances of the Kashmir valley.

## 17. Veer Savarkar

### Why in News?

- Less than two months after detecting its first infection, Montenegro is the first country in Europe to declare itself coronavirus-free.

### About Veer Savarkar

- Formed a youth organization, known as Mitra Mela, this organization was put into place **to bring in national and revolutionary ideas**.
- He was **against foreign goods and propagated the idea of Swadeshi**. In 1905, he burnt all the foreign goods in a bonfire on Dussehra.
- He championed atheism and rationality and also **disapproved orthodox Hindu belief**.
- He also Worked on **abolishment of untouchability** in Ratnagiri.
- Vinayak Savarkar was a **president of Hindu Mahasabha** from 1937 to 1943.
- In Pune, Savarkar founded the "**Abhinav Bharat Society**".
- He was also **involved in the Swadeshi movement** and later **joined Tilak's Swaraj Party**.
- He founded the **Free India Society**. The Society celebrated important dates on the Indian calendar including festivals, freedom movement landmarks, and was dedicated to furthering discussion about Indian freedom.
- He believed and **advocated the use of arms** to **free India** from the British.
- He also **published books advocating complete Indian independence** by revolutionary means. One of the books he published called **The Indian War of Independence** about the Indian rebellion of 1857 was banned by the British authorities.

## 18. NATIONAL LIST FOR INTANGIBLE CULTURAL HERITAGE (ICH)

### Why in News?

- Ministry of Culture launched the National List of Intangible Cultural Heritage in New Delhi.

### About

- It is an attempt to recognize the diversity of Indian culture embedded in its intangible heritage.
- It aims to raise awareness about the various intangible cultural heritage elements from different states of India at national and international level and ensure their protection.

- Intangible Cultural Heritage refers to the practices, representations, expressions, knowledge, transmitted from generation to generation within communities, created and transformed continuously by them, depending on the environment and their interaction with nature and history.
- Following **UNESCO's 2003 Convention for Safeguarding of Intangible Cultural Heritage**, this list has been classified into **five broad domains** in which intangible cultural heritage is manifested:
    1. Oral traditions and expressions, including language as a vehicle of the intangible cultural heritage.
    2. Performing arts.
    3. Social practices, rituals and festive events .
    4. Knowledge and practices concerning nature and the universe .
    5. Traditional craftsmanship.
- As of now the list has **more than 100 elements**, it also includes the **13 elements of India** that have already been inscribed on the UNESCO Representative List of the Intangible Cultural Heritage of Humanity.

**UNESCO's Convention for the Safeguarding of the Intangible Cultural Heritage**:

- Adopted in 2003, the Convention is the international community's **first binding** multilateral instrument intended to safeguard and raise the profile of heritage.
- Its goal is to **incite countries to care about and look after the ICH present on their territories**.
- Elements of India in UNESCO Representative List of the Intangible Cultural Heritage of Humanity:
    o Kutiyattam (Sanskrit Theatre of Kerala).
    o Traditional Vedic Chanting.
    o Ramlila.
    o Ramman (Religious festival of Uttarakhand).
    o Chhau Dance (West Bengal).
    o Mudiyettu (Ritual theatre and dance drama of Kerala).
    o Kalbelia (Folk dance of Rajasthan).
    o Buddhist chanting of Ladakh: recitation of sacred Buddhist texts in the trans-Himalayan Ladakh region, Jammu and Kashmir.
    o Sankirtana (ritual singing, drumming and dancing of Manipur).
    o Traditional brass and copper craft of utensil making among the Thatheras of Jandiala Guru, Punjab.
    o Nawrouz.
    o Yoga.
    o Kumbh Mela.

## 19. QISSA KHWANI BAZAAR MASSACRE

**Why in News?**

- Qissa Khwani Bazaar massacre in Peshawar has completed 90 years.

**About**

- Khan Abdul Gaffar Khan was arrested during protests arising out of the Salt Satyagraha in **1930s**. A crowd of **Khudai Khidmatgars** gathered in **Peshawar's Qissa Khwani (Storytellers) Bazaar**.
- In order to bring the situation under control, the British troops opened fire on the unarmed crowd, **killing over 400 people.**

### Khan Abdul Ghaffar Khan and his contributions

- He was born in 1890 and was nicknamed **Fakhr-e-Afghan** ("pride of Pashtuns"), Badshah Khan, or Bacha Khan, ("king of chiefs").

- He was the **leader of the Pashtuns** (or Pathans; a Muslim ethnic group of Pakistan and Afghanistan), and became a follower of Mahatma Gandhi.

- Ghaffar Khan entered politics in 1919 during **agitation over the Rowlatt Act**, later **joined the Khilafat movement**, and in 1921 he was elected president of a district Khilafat committee in his native North-West Frontier Province.

- He founded the **Red Shirt movement** (Khudai Khidmatgar or Servants of God) among the Pashtuns.

- It was initially a social reform organization **focusing on education** and the **elimination of blood feuds** from Afghan society but **turned more political later**.

- It espoused **nonviolent nationalist agitation** in support of Indian independence and sought to awaken the Pashtuns' political consciousness.

- He earned himself the nickname **Frontier Gandhi** by his close associate **Amir Chand Bombwal** for his devotion to non-violent resistance.

- He strongly **opposed the proposal for the partition of India**, siding with the Indian National Congress and **All India Azad Muslim Conference**.

- In June 1947, Khan and other Khudai Khidmatgars declared the **Bannu Resolution**, demanding that the Pashtuns be given a choice to have an independent state of Pashtunistan, composing all Pashtun territories of British India.

- Later, a plebiscite resulted in the Frontier Province becoming part of the newly independent Pakistan.

- He founded the Pashto language monthly political journal *'Pashtun'* in 1928. His **autobiography** **My Life and Struggle**, was made public in 1969.

- In **1987** he was **awarded the Bharat Ratna**.

# Miscellaneous

## 1. USCIRF ANNUAL REPORT-2020

**Why in News?**

- The U.S. Commission on International Religious Freedom (USCIRF) has downgraded India to the lowest ranking, "countries of particular concern" (CPC) in its 2020 report.

**About**

- **Released by** ➔ Washington based the **federal government commission** (functions as an advisory body).
- **India Position in report** ➔ placed India alongside countries, including China, North Korea, Saudi Arabia and Pakistan. India was categorised as a "**Tier 2 country**" in last year's listing.
- **According to the report** ➔ **India took a sharp downward turn in 2019**, which included specific concerns about the **Citizenship Amendment Act**, the proposed **National Register for Citizens**, **anti-conversion laws** and the **situation in Jammu and Kashmir**.
- **Government of India reacted** ➔ terming it "**biased and tendentious**" and rejected its observations.

## 2. International Labour Day

**Why in News?**

- International Labour Day is being celebrated across the world on May 1.

**About**

- **Name** ➔ often referred to as **May Day**.
- **What is it?**➔ The day is **celebrated to honour the contribution of working men and women** and to pay tribute to workers sacrifices in achieving economic and social rights all over the world.
- Date of observance ➔ **1st May**, an **ancient European spring festival**. The date was chosen by a pan-national organization of socialist and communist political parties to commemorate the **Haymarket affair**, which occurred in Chicago on 4 May 1886.
- Indian scenario ➔ First Labour day or May Day was celebrated in **1923 in Chennai**.

> 👉 **Haymarket affair?**
>
> During industrialization at the beginning of the 19th Century, the **industrialists used to exploit the labour class** and made them **work up to 15 hours a day.**
>
> The **workers at Haymarket affair**, in Chicago rose **against this exploitation** and demanded paid leaves, proper wages and breaks for the workforce.

## 3. Year of Awareness on Science & Health (YASH)

**Why in News?**

- Year of Awareness on Science & Health (YASH)' programme has been launched.

**About YASH**

- Launched by ➔ National Council for Science & Technology Communication (**NCSTC**), Department of Science & Technology (**DST**).
- Aim ➔ To **minimize risks at all levels** with the help of public communication and outreach activities, promote public understanding of community care and health safety measures.
- It is a comprehensive science and health awareness programme. It **emphasises on Covid-19**.
- Features ➔
  o **Development of science, health, and risk communication software.**
  o Development of publications, audio-visual, digital platforms, folk performances, trained communicators, especially in regional languages.
  o Includes **strategies to involve academic**, **research**, **media**, and **voluntary organizations** to facilitate necessary actions and emergency preparedness of society amidst Covid-19 pandemic
  o Includes **information dissemination mechanisms** to reduce the fear of risks, adoption of sustainable healthy lifestyles and fostering scientific attitude.

## 4. Ayuraksha | Corona se jung – Delhi Police ke sang

### Why in News?

- The All India Institute of Ayurveda (AIIA), under Ministry of AYUSH and Delhi Police organised AYURAKSHA programme for Delhi Police personal at New Delhi.

### About

- Launched by ➔ jointly the **All India Institute of Ayurveda** (AIIA), under Ministry of AYUSH and **Delhi Police**.
- Aims ➔ to **fight against corona** through simple and time-tested Ayurveda immunity boosting measures.
- These measures are as per the **advisory issued by the Ministry of AYUSH**.
- The recommended formulations like **Chyawanaprasha** (Amla as main content), **Anu Taila** and **SanshamaniVa**ti (prepared from Guduchi) have simple herbs which are time tested and scientifically proven for enhancing the immunity.
- **Role of Giloy as Vayasthapana** (Anti-aging herb) was highlighted by the Programme.

## 5. Special Trains For Migrants, Students

### Why in News?

- Railway Ministry will run Shramik Special trains to move stranded migrant workers and others due to lockdown.

### About

- The passengers have to be **screened by the sending states** and only those found asymptomatic would be allowed to travel.
- Sending State Governments will have to bring these **persons in batches** that can be accommodated in the train to the designated Railway Station in **sanitized buses**.
- It will be **mandatory** for every passenger to wear **face cover**.

## 6. KISAN SABHA APP

**Why in News?**

- Kisan Sabha App developed by CSIR-Central Road Research Institute (CSIR-CRRI), New Delhi to connect farmers to supply chain and freight transportation management system was launched.

**About**

- Aim ➔ To provide the most economical and timely logistics support to the farmers and increase their profit margins by **minimizing interference of middlemen**.
- Function ➔ The portal **connects the farmers, transporters, Service providers** (like pesticides/ fertilizer/ dealers, cold store, mandi dealers, customers and other related entities for a timely and effective solution.
- Facilities provided by the app ➔
    o acts as a **single stop** for every entity related to agriculture
    o useful for those associated with **cold stores or godowns**
    o provides a platform for people **who want to buy directly from the farmers**.
- Kisan Sabha has 6 major modules taking care of **Farmers** / **Mandi Dealers** / **Transporters** / **Mandi Board Members** / **Service Providers** / **Consumers**.

👉 **CSIR-Central Road Research Institute (CSIR-CRRI)**

- What it is? ➔ It is the premier national research organization for **highways traffic** and **transport planning** and **all other allied aspects**.
- Established ➔ **1952** as a constituent laboratory of the Council of Scientific and Industrial Research (CSIR).
- Location ➔ **Delhi**.
- Functions ➔ It carries out R&D in the areas of **road and road transportation** and provides the **highest level of professional consultancy.**

## 7. Kendu leaf procurement hits roadblock in Odisha

**Why in News?**

- The residents of Odisha's Kalahandi district have hit a roadblock in procuring kendu leaves through gram sabhas amid COVID-19 pandemic.

**About**

- Kendu leaf is a nationalized product and called **green gold of Odisha**.
- Tendu leaf is one of the most important **non-wood forest products of Odisha**.
- The leaves are used for **wrapping Bidis**, a popular smoke especially among poor natives.
- The states producing kendu leaf in India comprises mainly **MP, Chhattisgarh, Odisha, AP, Jharkhand, Gujarat and Maharashtra.**
- **Madhya Pradesh is the largest producer** of kendu leaf followed by Chhattisgarh and Odisha.
- Average selling price of Kendu Leaf varies between **Rs 30 to Rs 80 per kgs** depending on grades.

## 8. TOMAN

**Why in News?**

- The Iran's parliament has passed a bill allowing the government to the replacement of the national currency, the rial with another basic unit of currency called the toman.

**About**

- Changes ➔ The plan is set to effectively **cut four zeros** from its currency, making each toman worth 10,000 rials under the new system.
- Why ➔
    - There was a **sharp fall in the value of the currency** as a result of crippling U.S. sanctions.
    - As a result, the Iranian currency was trading at about **156,000 rials per dollar**.
    - **Iran's weak currency** and **high inflation** have led to **sporadic street protests** since late 2017.

> 👉 **Fiat Money**
>
> It's in the **form of coin / currency Notes /** (or sometimes virtual crypto coin).
>
> It is **issued by the order of a King / Queen / Government / Central Bank.**

## 9. GARUD PORTAL

**Why in News?**

- Ministry of Civil Aviation and Directorate General of Civil Aviation have launched the GARUD portal (https://garud.civilaviation.gov.in) to fast-track exemptions of coronavirus-related drone operations.

**About**

- GARUD Acronym ➔ **Government Authorisation for Relief Using Drones**.
- Significance ➔
    - **To help state-owned entities** in **seeking exemption** from central government for coronavirus related drone operations.
    - Also help in **addressing the challenges posed by COVID-19** and will remain in force until further orders.

## 10. Indian Photojournalists Won Pulitzer Prize

**Why in News?**

- Recently, five Indian photojournalists won the 2020 Pulitzer Prize for feature photography.
- Won the 2020 Pulitzer Prize for feature photography for their "striking images of life" in Jammu and Kashmir after the Centre abrogated the territory's special status under Article 370 of the Constitution in August last year.

**About Pulitzer Prize**

- What it is? ➔ The Pulitzer Prize is an award for **achievements in newspaper**, **magazine** and **online journalism**, **literature**, and **musical composition** in the United States.

- Background ➔ It was established in **1917** by provisions in the will of American (Hungarian-born) **Joseph Pulitzer** who had made his fortune as a newspaper publisher.
- Administered by ➔ **Columbia University in New York City**.
- Prizes ➔ Each winner receives a **certificate** and a **US$15,000 cash award**. The winner in the public service category is awarded a **gold medal**.

## 11. NSafe

### Why in News?

- An IIT Delhi startup 'Nanosafe Solutions' has launched an antimicrobial and washable face mask 'NSafe', which is reusable up to 50 launderings, thus greatly cutting down the cost of use.

### About

- It is a **triple-layered product** consisting of ➔
    1. inner hydrophilic layer for comfort,
    2. middle layer having antimicrobial activity and
    3. outer most layer having water and oil repellent behaviour.
- Efficiency ➔ The mask has **99.2% bacterial filtration** efficiency along with breathability and splash resistance.
- It is believed to be the **first fabric based antimicrobial face mask** launched in India.

## 12. MahaKavach App

### Why in News?

- MahaKavach App has been introduced by the Government of Maharashtra.

### About

- What is it? ➔ It is a **real-time digital contact tracing mobile application** which enables citizens to contribute and assist the health authorities in contact tracing, geo-fencing and tracking of quarantined COVID-19 patients.
- **Selfie attendance feature** has been also added in the application to get virtual attendance.
- This app is to be **used by individuals** as directed by their doctor or medical worker.
- The app will **not be accessible to everyone**, as the state government aims to use it for very targeted cases.

## 13. AYUSH Sanjivani App

### Why in News?

- Recently, the government has launched the 'AYUSH Sanjivani' App.

### About

- Developed by ➔ the **Ministry of AYUSH** and the Ministry of Electronics and Information Technology (**MEITY**).
- Targets ➔ to **reach out to 50 lakh people** in the country.

- Functions ➜ The app intends to **generate data on usage of AYUSH** (Ayurveda, Yoga & Naturopathy, Unani, Siddha, Sowa-rigpa and Homoeopathy) advocacies and measures among the population and its impact in prevention of Covid-19.
- Significance ➜ The data collected through this app will be **analyzed to find out usage of AYUSH interventions** and its efficacy in maintaining health by enhancing immunity.

## 14. Stringency Index

### Why in News?

- Recently, the Stringency Index composed and published by the University of Oxford has found that India has enforced one of the strongest lockdown measures in the World at a 100 score.

### About

- What is it? ➜ It is among the metrics being used by the Oxford **COVID-19 Government Response Tracker**.
- The Tracker involves a **team of 100 Oxford community members** who have **continuously updated** a database of **17 indicators** of government response.
- Indicators ➜ These indicators **examine containment policies** such as school and workplace closings, public events, public transport, stay-at-home policies.
- Weightage ➜ The Stringency Index is a number from 0 to 100 that reflects these indicators. A higher **index score indicates a higher level of stringency.**
- Stringency Index tell us ➜
  - It **provides a picture of the stage** at which any country enforced its strongest measures.
  - Oxford provides an **overlay of countries' death curve** and **their stringency score**.
  - Some countries **saw their deaths just begin to flatten** as they reached their highest stringency, such as **Italy, Spain, or France.**
- Indian scenario ➜ When compared to other countries with the similar or higher caseload, India called its **strict lockdown at a much earlier point** on its case and death curves.
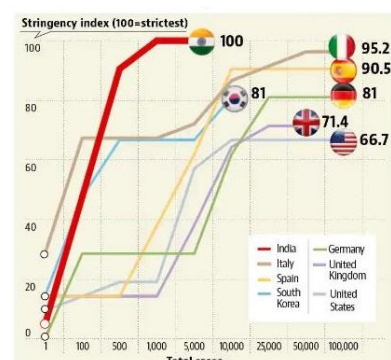
## 15. Project CARD to push local production of testing kits

### Why in News?

- Niti Aayog and the Department of Biotechnology have launched the Consortium for Affordable & Rapid Diagnostics (CARD) to scale up India's capacity to make coronavirus testing kit.

### About

- Aim ➜ The plan involves bringing scientists and laboratories in touch with private firms to produce millions of testing kits, including around 10 million rapid antibody tests that offer quick results.

👉 **About Rapid Test**

- What is it? ➔ It is a **speedy test** conducted to determine whether there has been any kind of recent viral infection in a person's body.
- How it work? ➔ When a pathogen enters a human body, **specific antibodies are released** as a response to the virus. A **rapid test** can **detect the presence of such antibodies** in blood, serum or plasma samples quickly indicating a viral infection.

## 16. SPIRULINA GROUNDNUT CHIKKI

### Why in News?

- The Mysuru-based Central Food Technological Research Institute (CFTRI) has developed Spirulina groundnut Chikki that can provide micro-nutrients and boost immunity of people during this time of pandemic.

### About

- It has **used Spirulina** as well as the **tasty, nourishing groundnuts** to prepare Chikki that is rich in micro-nutrients such as **Vitamin A, Beta Carotene and easily digestible algal proteins**.
- Spirulina is a **biomass of cyanobacteria** (blue-green algae) that can be consumed by humans and animals.
- The **Income Tax Department of Karnataka** and Goa region has **distributed** 500 kilograms of CFTRI Chikkies to migrant labourers in Bengaluru and surrounding areas.

## 17. FIR AAPKE DWAR

### Why in News?

- Madhya Pradesh Home Minister launched country's first ever 'FIR Aapke Dwar Yojana' in Bhopal.

### About

- Madhya Pradesh is the **first state** in the country to implement such an innovative scheme.
- 'FIR Aapke Dwar' scheme has been **started as a pilot project** in 23 Police Stations including one urban and one rural Police Station at 11 Divisional Headquarters.
- How it work? ➔ Now people would **not be required to visit police station** to lodge an FIR. Under it, **Dial 100 vehicle** would have **trained Head Constables to lodge FIR.** FIRs in complaints of general nature will be **lodged on the spot**. In case of serious complaints, guidance will be sought from senior officers.

## 18. Gandhi Peace Prize

### Why in News?

- Recently, the Ministry of Culture extended the nomination period for the Gandhi Peace Prize from 30th April to 15th June 2020, due to the lockdown in the wake of the Covid-19.

### About

- The **annual award** was instituted by the Government of India in **1995** during the commemoration of the **125ᵗʰ Birth anniversary of Mahatma Gandhi** for those involved in **social, economic and political transformation** through **non-violence.**
- The award carries an amount of **₹1 crore,** a **Citation in a scroll,** a **plaque** as well as an **exquisite traditional handicraft/handloom item.**

- The prize can be given to individuals, associations, institutions or organizations.
- It can be **divided between two persons/institutions** who are considered by the Jury to be equally deserving of recognition in a given year
- It is **open to all persons** regardless of nationality, creed, race or sex.
- The prize is **not awarded posthumously.**
- In **January 2019,** Gandhi Peace Prize was **awarded for the years 2015, 2016, 2017 and 2018.**

## 19. Quinine Nongladew

**Why in News?**

- Quinine, the most primitive antimalarial avatar of Hydroxychloroquine (HCQ), has made a village in Meghalaya latch on to its past for a curative future

**About**

- What is it? ➔ Quinine Nongladew is a **village named** after the **alkaloid quinine extracted from the bark of cinchona.**
- Property ➔ Quinine, its **most primitive antimalarial avatar**.
- Cinchona ➔ is a plant belonging to the **Rubiaceae family** and classified as either a **large shrub** or **a small tree**.
- Location ➔ The village, is about **70 km south of Guwahati**, is on the highway to Meghalaya capital Shillong.
- Meghalaya's Forests and Environment Department has **no records** on the Quinine Garden.
- Timeline ➔ The cinchona nursery was **raised in the 19th century**, probably around **1874**, when Shillong became the British administrative headquarters for **Assam Province**.
- The nursery on an **unknown area** fell into **disuse** by the **mid-1950s**, the plantation was not much of a success at it involved an **exotic species** brought **from South America.**
- Large swathes of Meghalaya **used to be, and still are, malaria-prone**.
- The British had the **foresight** to start the plantation **to combat malaria** and **other diseases caused by mosquitoes**.
- One of the reasons is that the Forest Department has **no control over the area** where a few cinchonas grow uncared for.

## 20. International Day of Light

**Why in News?**

- The UN marks the International Day of Light (IDL) — an annual initiative held globally to raise awareness on the critical role played by light-based technologies in everyday life**.**

**About**

- Date of observance ➔ The day selected, **May 16**, marks the anniversary of the first successful operation of the LASER in 1960 by physicist and engineer **Theodore Maiman**.
- Administered from ➔ The IDL is administered from the **International Basic Science Programme (IBSP) of UNESCO**, and its Secretariat is located at the Abdus Salam International Centre of Theoretical Physics (ICTP) at Trieste, Italy.

- Aim ➔ To **raise awareness on the critical role played by light-based technologies in everyday life** — on May 16
- The IDL **highlights the contribution** of such technologies in various avenues such as science, technology, art, and culture, thus helping achieve the UNESCO goals of education, equality, and peace.
- The **LASER is a perfect example** of how a scientific discovery can yield revolutionary benefits to society in communications, healthcare and many other fields.

## 21. HANKO

**Why in News?**

- As the number of COVID cases in Japan rise, the hanko tradition is coming under fierce criticism, with industry leaders demanding that the tradition be abandoned.

**About**

- What is it? ➔ The hanko is a personal stamp in Japan, that is **equivalent to a signature in other countries**, and is an **essential part of several transactions**.
- Property ➔ It is a personal stamp generally made **from wood or plastic**.
- Small-sized and circular or square-shaped, the stamp is **wet by an ink pad** called '**shuniku'**, and the mark that it leaves on a document is called '**inkan'**.
- Uses ➔ It is used for **authorising official documents** ranging from contracts, marriage registrations and even delivery slips.
- The use of the traditional seal can be traced back to **almost two millennia**. Even today, the hanko **remains popular in Japan**.

## 22. Charan Paduka

**Why in News?**

- In Madhya Pradesh, in a first of its kind of initiative, Charan Paduka campaign has been started for the migrant labourers passing through the state.

**About**

- Under this campaign, the migrant labourers going barefoot are being **providing shoes** and **slippers to reduce their pain**.
- The most notable thing is that this campaign is being **conducted by the police at most places**.
- Now this human initiative has spread in many cities of MP including **Damoh, Umaria and Sagar**.

## 23. INTERNATIONAL MUSEUM DAY (IMD)

**Why in News?**

- The Ministry of Culture hosted a webinar on "Revitalising Museums and Cultural Spaces" to celebrate the International Museum Day.

**About**

- Aim ➔ to **create awareness about the cultural importance of museums**.

- Date of observance ➔ annually on **18 May**
- Theme ➔ "**Museums for Equality: Diversity and Inclusion**".
- International Museum Day was instituted in 1977 by the International Council of Museums (ICOM).

👉 **The International Council of Museums (ICOM)**

- Status ➔ A **non-governmental organisation** maintaining formal relations with <u>UNESCO</u> and having a consultative status with the United Nations Economic and Social Council.
- Created in ➔ **1946**.
- Location ➔ **Paris, France**.
- It serves as a **network of museum professionals** (35,000 members in 137 countries) acting in a **wide range of museum**- and **heritage-related disciplines**.

## 24. LESS INVASIVE SURFACTANT ADMINISTRATION (LISA)

**Why in News?**

- A recent medical technique, known as Less invasive surfactant administration (LISA), has been started at J.K. Lon Government Children's Hospital in Jaipur for treatment of lung disease or respiratory distress syndrome among premature babies**.**

**About**

- What is it? ➔ LISA has been developed as a **lung protective strategy** for **respiratory management** and **ventilation** in view of the mechanical ventilation causing damage to the preterm lungs of newborns.
- **Infants considered suitable for LISA** are those being managed with primary **continuous positive airway pressure** (CPAP) or **high flow** with the evidence of increasing respiratory distress and with a rising oxygen requirement.
- The procedure, started initially for newborn children with the **birth weight of less than 1,500 grams**, has yielded encouraging results.
- Benefits ➔ The regular application of LISA would turn out to be **very useful** and **help save the lives of premature babies.**

## 25. WAG12

**Why in News?**

- The Indian Railways has operationalised its first 12,000 hp electric locomotive manufactured locally by French rolling stock manufacturer Alstom. The loco is named WAG12 with Number 60027**.**

**About WAG12**

- Run between ➔ The locomotive made its maiden commercial **run between Deen Dayal Upadhyaya Station to Shivpur.**
- Significance ➔ India became the **sixth country** in the world to join the club of countries producing high horsepower locomotive indigenously.
- Manufactured by ➔ It has been manufactured at the **Madhepura Electric Locomotive Pvt. Ltd**. **(MELPL), in Bihar,** which is a **joint venture** between the **French major and the Indian railways** holding an equity

share of 74% and 26% respectively. The joint venture remains the largest Foreign Direct Investment in the railways sector.

- Benefits ➔ Entry of WAG 12B (e-loco) into the Indian Railways fleet will **allow faster** and **safer movement** of heavier freight trains capable to haul around 6000 tonnes at a top **speed of 120 kmph**.
- It is the first time, **high horse power locomotive** has been **operationalised** on broad gauge track in the world.

## 26. Rajiv Gandhi Kisan Nyay Yojana

**Why in News?**

- Chhattisgarh is set to launch the Rajiv Gandhi Kisan Nyay Yojana to encourage farmers to produce more crops and help them get the right price**.**

**About**

- What is it? ➔ Based on registered area and area under cultivation during Kharif crop season 2019, **Rs 10,000 per acre will be deposited** in the bank accounts of farmers as **agriculture assistance grant** for sowing crops such as **paddy**, **maize** and **sugarcane**.
- Benefits ➔ At least **19 lakh farmers** will **benefit from the scheme**, for which the state government had allocated Rs 5,756 crore in the budget 2020-21.
- The money will be given to the farmers in **four instalments**.

## 27. AGAPPE CHITRA MAGNA

**Why in News?**

- The Sree Chitra Tirunal Institute for Medical Sciences and Technology (SCTIMST) in collaboration with Agappe Diagnostics Ltd. has commercially launched the Agappe Chitra Magna Kit for detection of Covid-19**.**

**About**

- What is it? ➔ It is a **magnetic nanoparticle-based RNA extraction kit** for use during testing for the detection of COVID-19.
- Application ➔ The kit can be used for **RNA extraction** for RT-LAMP, RT-qPCR, RT-PCR and other isothermal and **PCR based protocols** for the detection of SARS-COV-2.
- Working ➔
- It isolates RNA from the patient sample **using magnetic nanoparticles**.
- The magnetic nanoparticle **beads bind to the viral RNA** and, when exposed to a magnetic field, give a **highly purified** and **concentrated RNA**.
- As the sensitivity of the detection method is **dependent** on getting an **adequate quantity of viral RNA**, this innovation **enhances** the **chances of identifying positive cases**.
- Benefits ➔ The kit is **highly affordable**. The price of the kit is Rs 300 and is expected to come down to Rs 150. This will help to address the needs of India.

## 28. National Test Abhyas mobile app

**Why in News?**

- Union Human Resource Development Minister has launched an Artificial Intelligence powered mobile app named – the 'National Test Abhyas'**.**

**About**

- The application has been developed by the **National Testing Agency** (NTA).
- Purpose: To enable candidates to **take mock tests** for **upcoming exams** such as JEE Main, NEET under the NTA's purview.

👉 **National Testing Agency (NTA)**

- It has been **established in 2017** as an **autonomous self-sustained testing organization** to conduct entrance examinations for admission/fellowship in higher educational institutions.

## 29. Alternative dwarfing genes in wheat

**Why in News?**

- Recently, scientists at Pune based Agharkar Research Institute (ARI), have mapped two alternative dwarfing genes Rht14 and Rht18 in wheat that can help in reducing rice crop residue burning i.e. stubble burning**.**

**About**

- These genes are associated with **better seedling vigour** and **longer coleoptiles** (sheath protecting the young shoot tip).
- They have mapped the dwarfing genes on **chromosome 6A** in durum wheat, and **DNA-based markers** were developed for a **better selection of these genes in wheat breeding lines**.
- The **DNA-based markers** will help wheat breeders to **precisely select wheat lines** carrying these alternative dwarfing genes from a massive pool of wheat breeding lines.
- These DNA based markers are being **used at ARI** for **marker-assisted transfer of these genes in Indian wheat varieties**, so as to make them suitable for sowing under **rice stubble-retained conditions** and **dry environments.**
- Significance ➔ Wheat lines with these alternative dwarfing genes, apart from **reducing crop residue burning**, can allow **deeper sowing** of wheat seeds to avail advantage of **residual moisture** in the soil under dry environments.

## 30. Textile Committee

**Why in News?**

- Textiles Committee, Mumbai will now test and certify the Personal Protective Equipment (PPE) body coveralls required for healthcare workers and other Covid-19 warriors**.**

**About Textile Committee**

- It is a **statutory body** established in **1963**.
- Parent Organization ➔ It is under the administrative control of the **Ministry of Textiles**, Government of India.
- Aim ➔ It has been formed to **ensure the quality of textiles** and **textile machinery** both for internal consumption and export purpose.

- Functions ➔ It is tasked with the functions of **establishing laboratories** for the testing of textiles and textile machinery. It provides for their **inspection** and **examination**.
- Chairman ➔ The Chairman of the Committee is **nominated by the Government**.

## 31. Electrochemical Sensing Platform

**Why in News?**

- Recently, the researchers at the Institute of Advanced Study in Science and Technology (IASST), Guwahati, have developed an electrochemical sensing platform**.**

**About**

- What is it? ➔ It is aimed at **detecting carcinogenic** or **mutagenic compound N-nitrosodimethylamine** (NDMA) and **N-nitrosodiethanolamine** (NDEA) found in food items like cured meat, bacon, some cheese, and low-fat milk.
- The detection was achieved by **developing a modified electrode** by immobilizing carbon nanomaterials (carbon dots) in DNA.
- The scientists have **fabricated** an **electrochemical biosensor** using **DNA immobilized** on the surface of carbon dots for sensitive and selective detection of N-nitrosamine.
- The electrochemical biosensor platform was developed **using the ability of NDMA and NDEA**, to **alter the DNA.**
- Both **NDMA** and **NDEA alters** the **chemical structure of DNA** present in the electrode, making it more conducting, which ultimately results in the increased current peak.

## 32. Sweet Revolution and Atma Nirbhar Bharat

**Why in News?**

- Amid the coronavirus outbreak, a webinar was conducted by the National Cooperative Development Corporation (NCDC) on the theme "**Sweet Revolution and Atma Nirbhar Bharat**"**.**

**About**

- Organized by ➔ The webinar was **jointly organized by** National Bee Board, the Government of West Bengal, the Government of Uttarakhand and the Sher-e- Kashmir University of Agriculture Sciences and Technology, Kashmir.
- Objective ➔ The objective was to **popularize scientific beekeeping** as **source of livelihood for landless rural poor**, small and marginal famers to supplement agricultural income, as also as tool to enhance agriculture and horticulture production.
- Participation ➔ It **attracted participation of beekeepers, honey processors, marketing** and **branding professionals**, research scholars, academicians, cooperators from major honey producing states, representatives of State and Union Governments, **international organizations** such as FAO and NEDAC, Bangkok.
- Fund ➔ The Government has **allocated Rs.500 crore** towards Beekeeping under the **Atma Nirbhar Abhiyan**.
- The National Bee Board has created **four modules** to impart training as part of the National Beekeeping and Honey Mission (**NBHM**) and **30 lakh farmers** have been trained in beekeeping.

- Significance of Beekeeping ➔ As per Food and Agricultural Organization database, in 2017-18, India ranked eighth in the world in **terms of honey production** (64.9 thousand tonnes) while China stood first with a production level of 551 thousand tonnes.
- Further, beekeeping can be an important contributor in **achieving the 2022 target of doubling farmer incomes**.

## 33. World Bee Day

### Why in News?

- World Bee Day 2020 is being celebrated on May 20 under the theme "Save the Bees"**.**

### About

- Date of observance ➔ The United Nations has designated 20th May as **'World Bee Day'**.
- Objective ➔ The day is celebrated in order **to raise awareness** of the **importance of pollinators**, the threats they face and their contribution to **sustainable development**.
- The goal is to strengthen measures aimed at **protecting bees and other pollinators**, which would significantly contribute to solving problems related to the global food supply and eliminate hunger in developing countries.
- The **2020 World Bee Day** focused on **bee production** and **good practices** adopted by beekeepers to support their livelihoods and deliver good quality products.
- Theme ➔ World Bee Day 2020 theme is "**Save the Bees**" according to the UN.

## 34. KHUDOL

### Why in News?

- The United Nations Secretary-General's Envoy on Youth has listed Manipur's 'khudol' (gift) among the top 10 global initiatives for an inclusive fight against the COVID-19 pandemic**.**

### About

- What is it? ➔ Khudol is a **crowdfunded initiative of an Imphal-based NGO**.
- Aim ➔ The initiative entails ensuring **food supplies** and **health services for the LGBTQI+ community**, **people living with HIV**, **daily-wage earners**, **children** and **adolescents**.

## 35. Industry status to sports

### Why in News?

- To tap the potentials of players, Mizoram Cabinet has granted industry status to sports, a move aimed at generating employment**.**

### About

- Mizoram has a **pool of footballers playing** for premier clubs across the country.
- The State has also done **well in hockey** and **weightlifting** in recent years.
- Mizoram government seek to **invest more in sports** for the generation of employment and increasing value.
- Benefits ➔

- o The industry status would help the state to **meet the requirements of sportspersons** and **others involved in the sector.**
- o Sports investors and promoters will benefit from it but the **sportspersons** will be the **ultimate beneficiaries.**
- o The status would **ensure sustainability**, **proper registration** and **management of sports**.

## 36. Bev Q

**Why in News?**

- Google Play Store has approved the BevQ app which will be used to distribute liquor in Kerala**.**

**About**

- Bev Q is a mobile app which will **generate virtual tokens** in a bid to **reduce rush at liquor outlets**.
- Developed by ➔ Kochi based startup **Faircode Technologies Private Limited**.
- Used by ➔ Kerala's Beverages Corporation (**BEVCO**) to distribute the liquor in the state.

## 37. 'FAITH' TRIALS

**Why in News?**

- Glenmark Pharmaceuticals Ltd. has announced a new randomised, open-label study to test the combined efficacy of two antiviral drugs — Favipiravir and Umifenovir — as a potential COVID-19 treatment strategy**.**

**About**

- The new combination clinical trial will be called **FAITH** – (**FA vipiravir plus Um I fenovir** (efficacy and safety) Trial in Indian Hospital setting).
- Favipiravir ➔ is an **oral antiviral drug** approved in **Japan in 2014** for the treatment of novel or re-emerging **influenza virus infections**.
- Umifenovir ➔ is another **oral antiviral drug** licensed for the **treatment and prophylaxis of influenza A and B infections** in Russia and China.
- A **combined** use of **Favipiravir and Umifenovir acting** on different mechanisms offers a **comprehensive antiviral cover** on pre-entry and post-entry life-cycle of the SARS-CoV-2 virus.

## 38. Chardham Pariyojana

**Why in News?**

- Union Minister for Road Transport & Highways has inaugurated the Chamba Tunnel under Chardham Pariyojna**.**

**About**

- It is a **440-metre long tunnel built** by Border Roads Organisation (**BRO**) on **Rishikesh-Dharasu road Highway** (NH94) in **Uttarakhand**.
- The tunnel will facilitate **all-weather connectivity** to Chardham – Gangotri, Kedarnath, Yamunotri and Badrinath.

👉 **About Char Dham Project**

- It is a programme taken up by the **Ministry of Road Transport and Highways** for connectivity improvement for Chardham (**Kedarnath, Badrinath, Yamunotri and Gangotri**) **in Uttrakhand**.
- Cost of the project ➜ around **Rs. 12,000 Crore**.
- It envisages improvement as well as development of **889 km length of national highways**.
- Implementing Agencies➜ Uttarakhand State Public Works Department (**PWD**), **BRO** and the National Highway & Infrastructure Development Corporation Limited (**NHIDCL**).
- Project Mode➜ The work under the programme is being **implemented on Engineering, Procurement and Construction (EPC) mode**.

## 39. Central Institute of Petrochemicals Engineering & Technology

**Why in News?**

- Recently, the Central Institute of Plastics Engineering & Technology (CIPET) has been renamed as the Central Institute of Petrochemicals Engineering & Technology (CIPET).

**About**

- The changed name has been registered under the **Tamil Nadu Societies Registration Act 1975**.
- Established ➜ It was **established in 1968** by the Government of India with the assistance of the United Nations Development Programme (**UNDP**) **at Chennai**.
- Parent Organization ➜ CIPET is a premier national institution **under the Ministry of Chemicals and Fertilizers**.
- Objective ➜ The primary objective of CIPET has been **contributing towards the growth of the plastics industry** through a combined program of education and research.
- Located in ➜ **Ahmedabad, Gujarat**.
- With the change in name, now CIPET will be in a position to fully devote itself for the **growth of the entire petrochemical sector** with a **focus on academics**, **skilling**, **technology support and research**.

## 40. Super mushroom "Cordyceps militaris"

**Why in News?**

- A university in Assam has developed a fungal powder to help people boost their immunity to disease.

**About**

- The powder is from a parasitic but rare "**super mushroom**" called **Cordyceps militaris**.
- The militaris underwent powdering through **lyophilisation** or **freeze-drying at −80°C**.
- The earth has **more than 400 species** of **Cordyceps**, a fungus parasitic on insects as well as other fungi.
- Often referred to as a super mushroom, Cordyceps known for its **anti-ageing**, **anti-viral**, **energy and immunity-boosting effect.**
- Natural Cordyceps is **hard to get** and **if dried**, **costs at least ₹8 lakh per kg**.

## 41. INDIAN INITIATIVE ON EARTH BIOGENOME SEQUENCING (IIEBS)

**Why in News?**

- Jawaharlal Nehru Tropical Botanic Garden and Research Institute (JNTBGRI) is selected to take part in Indian Initiative on Earth BioGenome Sequencing (IIEBS).

**About**

- This project **aims to decode the genetic information of all known species** of **plants** and **animals** in the country.
- The National Institute of Plant Genome Research, New Delhi is the coordinating centre involving a total of 24 institutes.
- The whole genome sequencing of 1,000 species of plants and animals will be taken up in the initial phase of IIEBS to be completed over a period of five years at an estimated cost of ₹440 crore.
- The project is **part of the Earth BioGenome Project**.

### About Genome Sequencing:

- A genome is an organism's **complete set of deoxyribonucleic acid (DNA).**
- Sequencing a genome means **deciphering the exact order of base pairs** in an organism.
- The way these base pairs are arranged, or variations and mutations in their pattern, can provide clues about the individual's health or ill health, inherited or acquired.

### Related Information

- **Eukaryotic organisms** are those whose cells contain a nucleus and organelles, and are enclosed by a plasma membrane.
- It includes protozoa, fungi, plants and animals.
- Prokaryotic cells are cells that **do not have a true nucleus or membrane**-bound organelles. E.g. Bacteria.

### About Earth BioGenome project

- It is a global effort **launched in 2018**, involving scientific partners and funders from around the globe.
- It aims to sequence, catalogue and characterise genomes of all of Earth's eukaryotic biodiversity over a period of ten years.
- Vision- Create a new foundation for biology to drive solutions for preserving biodiversity and sustaining human societies.

## 42. ORGANISATION FOR THE PROHIBITION OF CHEMICAL WEAPONS

**Why in News?**

- Organisation for the Prohibition of Chemical Weapons (OPCW) for the first time explicitly blamed Syria for toxic attacks.

**About OPCW**

- It is the **implementing body** for the Chemical Weapons Convention.
- **Headquarters: Hague, Netherlands**.

- Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction (**the Chemical Weapons Convention or CWC**) entered into force on **29 April 1997**.
- CWC aims to eliminate an entire category of weapons of mass destruction by prohibiting the development, production, acquisition, stockpiling, retention, transfer or use of chemical weapons by States Parties. To achieve the goal of preventing chemistry from ever again being used for warfare, **CWC has four provisions**:
    1. **Destroying all existing chemical weapons** under international verification by the OPCW.
    2. Monitoring chemical industry to prevent chemical weapons from re-emerging.
    3. Providing assistance and protection to States Parties against chemical threats.
    4. Fostering international cooperation to strengthen implementation of the Convention and promote the peaceful use of chemistry.
- CWC was signed and ratified by 193 countries, **including India**.
- OPCW was **awarded the Nobel Peace Prize in 2013** for its extensive efforts to eliminate chemical weapons.

**About Sarin**:

- Sarin is a clear, colorless, and tasteless liquid that has no odor in its pure form. However, **sarin can evaporate into a vapor (gas) and spread into the environment.**
- It is a **human-made chemical warfare agent** classified as a **nerve agent**.
- Sarin originally was developed in **1938 in Germany as a pesticide**. It is also known as **GB**.

**About Chlorine gas**:

- It appears to be yellow-green in color. It does **sink and displace breathable air**, so it can **asphyxiate**(die by being deprived of air) people.

## 43. GREEN BONDS

**Why in News?**

- State Bank of India has listed Green Bonds worth $100 million on India INX's Global Securities Market Platform (GSM).

**About Green Bonds**

- Green bonds are **debt instruments** issued by financial, non-financial or public entities where the proceeds are 'ear-marked' for use towards **financing 'green' projects**.
- As per official '**green bonds requirements for Indian issuers' published (in 2016**) by Securities and Exchange Board of India (**SEBI**), debt security shall be considered as 'Green' or 'Green Debt Securities', if funds raised are to be utilized for assets falling under any of the following broad categories:
    o Renewable and sustainable energy (wind, solar etc.)
    o Clean transportation (mass transportation)
    o Sustainable water management
    o Climate change adaptation
    o Energy efficiency (efficient and green buildings)
    o Sustainable waste management (recycling, waste to energy etc.)
    o Sustainable land use (including sustainable forestry and agriculture, afforestation etc.)
    o Biodiversity conservation Green bonds scenario in India

### India INX

- India International Exchange Limited (India INX) is **India's first international exchange** located at the Gujarat International Finance-Tech City (**GIFT City**).
- Operating on an advanced technology platform of EUREX T7, Exchange is fastest in the world with a turn-around time of 4 micro seconds.
- Launched in 2017, it is a subsidiary of **BSE Limited**.
- It is **Asia's first Stock Exchange**. It was **established in 1875**.